

## **Kenneth M. Schwarz, Ph.D.**

### **Principal**

Ken Schwarz, Ph.D. is a founding Principal at Horizon Water and Environment. His technical expertise is in the fields of geomorphology, hydrology, and watershed management. For over 16 years, he has directed complex projects throughout California involving erosion and sedimentation, flood and stormwater management, land use planning, habitat conservation, and ecosystem restoration. Ken conducts hydrologic and geomorphic analyses and produces watershed and stream management plans, hydrologic reports, stream assessments, sediment and erosion control evaluations, restoration designs, conservation plans, and CEQA documents. Ken specializes in using his technical background to develop successful permit applications for the USACE, RWQCBs, CDFG, USFWS, and NMFS, as well as local county and municipal approvals. Ken's watershed and stream projects typically balance the needs and requirements of local government planners, regulatory agencies, and watershed stakeholders, while maintaining focus to project costs and schedules.

Prior to founding Horizon with partner Michael Stevenson, Ken was a Principal and Project Director at Jones & Stokes Associates where he managed large watershed, water resource, and environmental compliance projects. Previously, Ken was a Director at Philip Williams & Associates focusing on Southern California hydrology and restoration projects working under the guidance of Jeffrey Haltiner Ph.D., P.E. In 1999, Ken completed his Ph.D. at UCLA in geomorphology, under the supervision of Dr. Antony Orme. Ken's Master's and Ph.D. research focused on watershed hydrology and sediment transport and delivery in watershed, stream, and estuarine systems. Ken has participated in several scientific and environmental management committees, including the Southern California Wetlands Recovery Program's Science Advisory Panel. Ken has led award-winning projects for the City of Chula Vista, Napa County, and Sonoma County. Ken is also a highly regarded instructor and has taught courses in hydrology, geomorphology, watershed planning, riparian processes, physical geography, and ecosystem restoration for the University of San Francisco, UC Davis Extension, US Army Corps of Engineers, Lorman Educational Services, and UCLA. He has authored numerous articles and presented at several conferences.

#### **EDUCATION**

- Ph.D. Geography (Geomorphology and Hydrology) UCLA, 1999
- M.A. Geography (Geomorphology and Hydrology) UCLA, 1995
- B.A. Regional Development (Major Honors and University Distinction), UC Berkeley, 1988

#### **PROFESSIONAL EXPERIENCE**

- Horizon Water and Environment
  - Founding Principal (2008 - present)
- Jones & Stokes, Oakland, CA
  - Principal (2007–2008)
  - Associate Principal (2003–2006)
- Philip Williams & Associates, San Francisco, CA
  - Director (2002–03)
  - Senior Associate (2001–02)
  - Associate (1999–2000)
- Schwarz Geographic Analysis, Los

#### **PROJECT EXPERIENCE**

**Stream Maintenance Program (SMP), EIR, and Environmental Permitting: Sonoma County Water Agency (SCWA) (2006–current).** Ken is the Project Director developing the Stream Maintenance Program for SCWA. The SMP uses geomorphic and ecologic principles to avoid and minimize environmental impacts from maintenance activities. While avoiding impacts, the SMP meets flood management and public safety requirements, presenting a balanced approach to flood and environmental management. Permitting was 100% successful, with nearly 40 individual permits and several multi-year programmatic permits achieved with the USACE, RWQCB, CDFG, USFWS, and NMFS. Successful CEQA/NEPA requirements were also developed for the program.

**Low Impact Development (LID) Manual: Sonoma County Water Agency (SCWA) (2008–current).** Ken is the lead author and Project Director developing Sonoma County's new LID Manual. The manual was developed in part to satisfy Phase 1 MS4 NPDES permit requirements to develop LID techniques to avoid runoff and water quality impacts associated with development in Sonoma County. The Sonoma LID manual also includes guidance on water conservation, water reuse, and water-energy efficiency. In this way the manual is far more comprehensive and integrated than typical LID guidebooks. Ken is working in close partnership with staff at SCWA, the City of Santa Rosa, and Sonoma

Angeles, CA (1995–99)

- Consulting expertise in aerial photo

## PROFESSIONAL EXPERIENCE (CONT.)

interpretation

- Erosion studies and environmental impact analysis

University of California, Los Angeles  
(1992–99)

- Department Lecturer for undergraduate courses in Physical Environment (1998–99)
- Teaching Fellow and Instructor for undergraduate laboratory courses in Hydrology and Geomorphology (1995–98)
- Assistant Cartographer and Manager of UCLA Aerial Photo Collection (1992–95)

Kibbutz Gesher Háziv, Israel (1992)

- Irrigation Technician and Harvester

Israel Defense Forces (1989–91)

- Sergeant in elite combat unit, 890 Paratroop Brigade

## TEACHING EXPERIENCE

Course Instructor: University of San Francisco, *Introduction to Hydrology, Geomorphology, and Watersheds*, 2008

Instructor: UC Davis Extension, *Understanding Riparian Processes*, Summer 2007, 2009

Lecturer: USACE Stream Bio-Engineering Workshop, *Conducting Geomorphic Assessments*, San Diego, CA, April 2009

Lecturer: American Public Works Assoc. (APWA) – HSPF Stormwater Training, San Diego, CA, June 2009

Guest Lecturer: University of California, Berkeley, *River Assessment and Riparian Buffers*, in *Hydrology for Planners*, for Professor. M. Kondolf, Spring 2009

Guest Lecturer: University of California, Berkeley, *Rivers and Watersheds*, in *Introduction to Environmental Science*, for Professor. A. Goldstein, Spring 2008

Instructor: Lorman Educational Services, *Wetland Functions, Regulations and*

County, as well as consultant partner RMC.

**Sonoma County Flood Control Design Criteria (FCDC) Manual: Sonoma County Water Agency (SCWA), (2009 – current).** Ken is the Project Director leading the effort to revise Sonoma County's hydrology and drainage design manual. The existing FCDC has not been significantly revised in 30 years. The updated manual will provide new guidance for precipitation and runoff analysis, hydrologic modeling, flood and stormwater management, as well as, new design standards including Low Impact Development approaches (see above). Ken is working closely with project partner PWA on the revised FCDC manual.

**U.S. Army Corps of Engineers (USACE) Russian River and Dry Creek Flood Control, Channel & Levee Maintenance, and Fish Hatchery Evaluation: (SCWA) (2006–current).** Ken and his Horizon team are revising channel and levee maintenance approaches along the Russian River and Dry Creek in Sonoma County. The new approaches seek to improve fishery and riparian habitats while being consistent with USACE levee inspection and flood management requirements. These investigations will culminate in revising existing USACE channel maintenance manuals for the Russian River.

**East Contra Costa Habitat Conservation Plan (HCP) Implementation: Contra Costa County (2007).** While at Jones & Stokes, Ken led stream and wetland restoration activities for the East Contra Costa HCP. Ken assessed hydrologic and habitat conditions and developed restoration plans for prioritized sites.

**Bay Area Integrated Regional Water Management Plan (IRWMP): Zone 7 Water Agency and California Coastal Conservancy (2006).** Ken was co-Project Director overseeing development of the Bay Area's IRWMP. Following Prop 50 guidelines, the Plan integrates multiple water resource needs, including water supply, water quality, recycled water, wastewater, flood control, stormwater management, watershed management, habitat protection, and restoration. The Bay Area IRWM plan provides the basis for additional Proposition 50 and 84 funding by the State Department of Water Resources (DWR) and State Water Quality Control Board (SWQCB). Ken worked closely with consulting team partner RMC Water and Environment.

**San Francisco Bay Area Watershed Management Plan (BAWP): California Coastal Conservancy (2005–06).** Ken led the BAWP effort including developing a watershed atlas and inventory for Bay Area watersheds, developing a web portal for project communications, and developing an evaluation framework to prioritize projects. The BAWP is one of the four primary Functional Area Documents used to develop the Bay Area IRWMP (see above).

**Napa County General Plan Update and EIR: Napa County Department of Conservation Development & Planning (2006).** Ken assisted the Napa County Planning Department in developing the 2006 general plan update (GPU). Ken reviewed the hydrology, groundwater, and sediment transport analyses and guided development

*Permitting*, April 2008

Instructor: Lorman Educational Services,  
*Ecosystem Restoration*, January 2008

## PROFESSIONAL MEMBERSHIPS AND SCIENTIFIC COMMUNITY

NOAA: Southern California Climate  
Change and Sea Level Rise Steering  
Committee (2009 – present)

Bay Area Upland Goals Project: Science  
Advisory Panel for Fish and Riparian  
Corridors (2008 - present)

Ballona Wetlands Restoration Project:  
Science Advisory Panel (2005 –  
present)

Southern California Wetlands Recovery  
Project: Science Advisory Panel  
(1999–2007)

Tejon Ranch/Trust for Public Lands:  
Science Advisory Panel (2003–04)

Malibu Lagoon Restoration Project:  
Science Advisory Panel (2004–05)

Association of Environmental  
Professionals

## TECHNICAL AND MANAGEMENT TRAINING

Groundwater Law and Hydrology, UC  
Davis Extension, 2008

Corporate Finance, UC Berkeley, 2004

Management Accounting, UC Berkeley,  
2004

Financial Management for Professional  
Engineers, American Society of Civil  
Engineers (ASCE), 2002

Business Organization and  
Management, UC Berkeley, 2001

HEC-RAS Computer Workshop, ASCE,  
1999

G.I.S. Programming (ESRI), 1998

## AWARDS

2009 Floodplain Management  
Association (FMA) Award for  
Excellence for the Sonoma County  
Stream Maintenance Program

2007 Association of Bay Area  
Governments (ABAG) Award for  
Protecting and Preserving the

of the Water Element of the GPU and the Hydrology and Water  
Resources sections of the EIR. Ken crafted a ministerial approval process  
for the County's review of vineyard development projects.

**Lake Merritt Organic Enrichment and Dissolved Oxygen  
Evaluation—City of Oakland, CA (2006-07).** Ken led a team that  
analyzed nutrient, oxygen, and trash conditions in Lake Merritt. An  
implementation plan was developed in response to CWA Section 303(d)  
impairment listing for the lake. The plan identified stormwater treatments  
and locations to capture trash and organic debris and also provided  
recommendations for capital improvements and management initiatives.

**Malibu Lagoon Restoration and Enhancement Plan EIR:  
California Coastal Conservancy (2005-06).** While at Jones &  
Stokes, Ken led developing the hydrology and water quality section of  
the EIR and provided technical oversight and review for these topics.  
Ken has a strong background working at Malibu Lagoon, having  
conducted research there as part of his Ph.D. dissertation at UCLA and  
authoring the hydrology and geomorphology sections of the previous  
Coastal Conservancy Malibu Lagoon Management Plan in 1999 (see  
below). This background provided an excellent basis to evaluate  
potential project impacts for the revised restoration plan.

**Chain of Lakes Master Planning: Zone 7 Water Agency (2005–  
06).** Ken developed a master planning approach for the Chain of Lakes  
system in Alameda County. As an initial strategic process, Ken organized  
the sequencing of planning steps to develop the long-term master plan,  
including consideration of water resources, recreational opportunities,  
environmental concerns, CEQA/permitting compliance, and developing a  
stakeholder participation process.

**Napa County Baseline Data Report (BDR) and Programmatic  
EIR: Napa County Department of Conservation Development &  
Planning (2003–05).** While at Jones & Stokes, Ken was the project  
manager leading the comprehensive inventory and GIS analysis of Napa  
County. Technical highlights of the project included developing a  
physically based integrated surface hydrology, groundwater, and water  
quality model (MIKE-SHE) capable of assessing hydrologic conditions at  
individual project scales, watershed scales, and at the cumulative County  
scale. The project has won multiple local, state, and national awards.

**Napa River Oxbow Habitat Restoration and Preservation Project  
CEQA and Permitting: City of Napa (2005–06).** Ken led the CEQA  
compliance process for the restoration project. Several mitigation  
measures were developed to avoid impacts and protect the sites riparian  
and aquatic habitats. Additionally, a small wetland feature was designed  
and created to mitigate for potential wetland impacts during project  
implementation. Ken led the preparation and submittal of permit  
applications to the USACE, USFWS, RWQCB, and CDFG. A wetland  
delineation analysis and report was conducted in support of the Clean  
Water Act (CWA) Section 404 permit for USACE.

**Oakland Creeks Assessment and Restoration Evaluation: City  
of Oakland (2005-2006).** Ken led the evaluation of over 30 creeks  
throughout the City of Oakland. Ken developed a creek assessment

Environment: *Napa County Baseline*

## AWARDS (CONT.)

### Data Report

2006 National Environmental Excellence Award for Planning Integration: *Napa County Baseline Data Report*, National Assoc. of Environmental Professionals

2006 California State Award for Best Use of Technology, California Chapter of the American Planning Association (CCAPA)

2006 Certificate of Merit for Outstanding Environmental Resource Document: *Napa County Baseline Data Report*, California Chapter of the Association of Environmental Professionals (CAEP)

2006 Award for Innovative Use of Technology, *Napa County Baseline Data Report*, Northern Section California Chapter American Planning Association (NSCCAPA)

2002 Honorable Mention Award for Environmental Design: *Poggi Canyon Olympic Parkway Channel Design and Restoration*, Association of Environmental Professionals (CAEP)

1999 Distinguished Teaching Award, UCLA Department of Geography

1997 Graduate Student Conference Award, American Geophysical Union

1995–98 Doctoral Teaching Fellow, UCLA

1995 Commencement Speaker, UCLA Department of Geography

1992 Graduate Student Merit Award, UCLA

1988 Commencement Speaker, UC Berkeley, Department of Development Studies

## SELECTED PUBLICATIONS AND PRESENTATIONS

Schwarz, K.M. and Thompson, M. 2009. *Balancing Flood Management and Resource Protection: The Sonoma County Stream Maintenance Program*: Abstract and Presentation, Floodplain Management Association. San Jose, CA, Sept. 8-11, 2009.

Stewart, R. and Schwarz, K. M. 2007.

framework integrating geomorphic, hydrologic, and biologic functions. The framework was used to evaluate and prioritize streams for habitat restoration, conservation, erosion control, and flood management opportunities. The prioritization process also included feasibility and cost considerations. The assessment protocol that Ken developed has been successfully in use since 2005 for the continued evaluation of Oakland creeks.

**Otay River Watershed Management Plan and Special Area Management Plan (SAMP): San Diego County (2003–06).** Ken conducted a detailed geomorphic, hydrologic, and habitat assessment of the Otay watershed. Management recommendations were provided to the County to minimize water quality and habitat impacts. These included: (a) careful siting considerations for development zones; (b) targeted acquisition locations for resource conservation; (c) BMP measures for specific sub-basin conditions; and (d) targeted restoration approaches. Ken worked closely with Aspen Environmental and TAIC as part of a collaborative consultant team.

### **East Contra Costa Habitat Conservation Planning (HCP) and Regional Wetlands Permitting: Contra Costa County (2003–06).**

While at Jones & Stokes, Ken led the wetland permitting effort for the HCP and land use planning program. Tasks included CWA Section 404 compliance through development of a Regional General Permit (RGP) with the San Francisco and Sacramento Districts of USACE. The RGP effort included a comprehensive wetlands inventory and a hydro-geomorphic assessment of wetland functions and values as required for USACE permitting compliance. Ken also led permitting efforts for CWA Section 401 compliance with the San Francisco Bay and Central Valley RWQCBs and the State Water Board of California.

**Southern Orange County Special Area Management Plan (SAMP): Rancho Mission Viejo Corporation (1999–2003).** While at Philip Williams Associates (PWA), Ken directed the hydrologic and geomorphic analyses of the San Juan and San Mateo creek watersheds in southern Orange County. These studies were used to develop a SAMP in coordination with USACE Los Angeles District. The SAMP objective is to preserve, enhance, and restore aquatic resources while allowing for reasonable economic development within the watershed. Ken directed several technical studies, including rainfall-runoff analysis, low flow hydrology, stream network analyses, and a sediment transport evaluation to provide a scientific basis for selecting watershed areas to be preserved, restored, or developed.

**Geomorphic Analysis of Laguna de Santa Rosa, Sonoma County: USACE, San Francisco District (2001–03).** Ken helped conduct a geomorphic analysis of the Laguna de Santa Rosa. Sediment source areas, historical transport rates, and sediment accumulation rates were evaluated to estimate the reduction in the Laguna's runoff storage capacity.

**Hydromodification Management Plan: Santa Clara Valley Water District (SCVWD) (2002–03).** Ken managed PWA's hydrologic analysis of the Thompson Creek watershed to evaluate the hydrologic effect of

*Canada Goose Management Study at*

## SELECTED PUBLICATIONS AND PRESENTATIONS (CONT.)

*the Lake Merritt Estuary: Abstract and Poster Presentation 8<sup>th</sup> Biennial State of the SF Estuary Conference, Oakland, CA, October 16–18, 2007.*

Schwarz, K.M., Williams, S., Erb, T., and Guivetchi, K. 2007. *Integrated Regional Water Planning in California: California Chapter of the American Planning Association, Annual Conference, San Jose, CA, Oct 2, 2007.*

Schwarz, K. M. 2007. *Integrated Regional Water Management (IRWM) Planning Overview and Lessons*

*Learned: Association of Environmental Professionals, 2007 California Conference, April 29– May 2, 2007.*

Schwarz, K. M. 2007. *Watershed Partnerships and Integrated Regional Water Management : Watershed Day at the Capital conference sponsored by the California Watershed Network, Sacramento, CA, March 21, 2007.*

Schwarz, K. M. 2006. *Coordinating Wetlands and Aquatic Resources Permitting with Habitat Conservation Plans: Habitat Conservation Planning Fourth Annual Workshop, Vacaville, CA, December 6, 2006.*

Schwarz, K. M. and Lowe, R. P. 2006. *Improved Planning Using Baseline Studies: California Chapter of the American Planning Association (CCAPA) 2006 State Conference, Orange County, CA, October 24, 2006.*

Schwarz, K. M. 2006. *From Academia to Environmental Consulting: Presentation to UCLA Graduate Student Workshop, Los Angeles, CA, May 10, 2006.*

Schwarz, K. M., Mooney, B., and Lowe, R. P. 2006. *Improved Planning Using Baseline Studies and Resource Inventories: Association of Environmental Professionals, State Conference, Newport Beach, CA, April 10, 2006.*

Schwarz, K. M. 2006. *Restoration and Environmental Planning in the San Francisco Bay Watershed: North Bay Watershed Association Conference on Water and Regionalism, Napa, CA,*

urbanization. A 30-year continuous rainfall record was used to model long-term runoff and simulate individual storm events, soil moisture, and seasonal flow conditions. This hydrologic analysis was used to support a geomorphic assessment of stream stability to identify reaches with higher risk to bank erosion.

**Otay River Wetland Restoration Analysis: USFWS and Ducks Unlimited (2002–03).** Ken led a hydraulic analysis of the lower Otay River and estuary in the southern San Diego Bay National Wildlife Refuge. Restoration concepts were developed to return artificially filled areas to their historical floodplain and salt marsh functions. A hydrodynamic model was used to evaluate how restoration alternatives could maximize restored habitat while minimizing potential flooding and project costs.

**Morro Bay Sedimentation and Watershed Management Assessment: Central Coast RWQCB (2002).** Ken directed an evaluation of sedimentation conditions in the Morro Bay estuary. Erosion control measures in the upper watershed were analyzed for how effectively they could reduce sediment accumulation in the bay downstream. Erosion control measures were developed based on specific land use, soil, and geomorphic conditions. Floodplain restoration locations were identified that offered sediment storage capacity and improved habitat benefits. Dr. Schwarz worked with the Central Coast Regional Board, Morro Bay National Estuarine Program, USACE, California Energy Commission (CEC), and a local Morro Bay environmental coalition.

**Tujunga Wash Restoration Feasibility: Los Angeles and San Gabriel Rivers Watershed Council (2001–02).** While at PWA, Ken directed a feasibility analysis of restoring portions of the Tujunga Wash, currently a concrete channel tributary of the Los Angeles River. Based on a geomorphic analysis of the system, Dr. Schwarz developed a restoration concept featuring an alluvial-braid bypass channel. Flood management requirements were integrated into the channel design, in coordination with engineering staff from USACE and Los Angeles County Department of Public Works.

**University Arroyo Flood Management and Enhancement Program: UC Riverside (1999–2002).** While at PWA, Ken directed a hydrology, hydraulics, and flood management analysis to reduce the campus flood hazard. The technical analysis included hydrologic modeling, hydraulic routing, and a hydrodynamic analysis of pipe and open-channel interactions using the MIKE-SWMM model. Ken coordinated the University's objectives within a broader watershed management team that included local landowners, representatives from environmental regulatory agencies, and engineering and planning officials from the City and County of Riverside.

**Olympic Parkway (Poggi Canyon) Geomorphic Stream Design: City of Chula Vista (1999–2000).** While at PWA, Ken guided the redesign of an engineered channel to incorporate geomorphic features. A series of meander-arcs were created to increase channel sinuosity and provide landforms similar to pre-development canyon alluvial fans.

April 7, 2006.

### SELECTED PUBLICATIONS AND PRESENTATIONS (CONT.)

Schwarz, K. M. and Orme, A. R. 2005. *Opening and Closure of a Seasonal River Mouth: The Malibu Estuary-Barrier-Lagoon System*, California: In *Coasts Under Stress II*. Zeitschrift für Geomorphologie, Supplemental Volume 141, Borntraeger, Berlin-Stuttgart, December 2005.

Schwarz, K. M. and Mackay, K. 2005. *Watershed Management and Restoration Projects in the Napa River Watershed: Lessons Learned for Southern California*. Headwaters to

Oceans Conference, Huntington Beach, CA, October 26–28, 2005.

Mackay, K. and Schwarz, K. M. 2005. *A Survey of Current Restoration and Water Management Projects in the Napa River Watershed: 7th Biennial State of the Estuary Conference*, Oakland, CA, October 4–6, 2005.

Schwarz, K. M. 2005. *Science and Management in the Environmental Consulting Industry*: UCLA Department of Geography Colloquium, June 2, 2005.

Schwarz, K. M. 2005. *Stream Buffer Use in Watershed Management*: Presentation to City of Oakland, Environmental Lecture Series: City Hall, Oakland, CA, March 2, 2005.

Schwarz, K. M. and Robins, J. 2005. *Stream Buffers: Functions and Applications in California Streams*. Conference on Watershed Stewardship: Merritt College, Oakland, CA, January 13–16, 2005.

Schwarz, K. M., MacNeil, S. M., and Atchison, P. 2004. *Headwaters to San Diego Bay: Planning and Management in the Otay River Watershed*. Abstract and Presentation: 2<sup>nd</sup> Annual Headwaters to Ocean Conference: Long Beach, CA, October 27–29, 2004.

Borden, J. D., Schwarz, K. M., and Kjelds, J. T. 2004. *Integrated Hydrology and Water Resources Analysis of Napa County to Support Comprehensive Land Use Planning*. Poster Presentation: 3<sup>rd</sup> Biennial California

Additionally, a cascading sequence of scour pools was designed to improve surface water flow conditions and aquatic habitat at channel drop structures. Ken's designs improvements met the approval of USACE, EPA, the San Diego RWQCB, and CDFG, thus enabling the Olympic Parkway project to advance toward completion.

**Environmental Impact Analysis and Expert Witness Testimony for Electrical Increase Projects in California: California Public Utilities Commission (CPUC) and CEC (1999–2003)**. Ken identified and evaluated the severity of impacts to soil and water resources related to the construction and operation of several electrical upgrade projects throughout California, including the Northeast San Jose, Tri-Valley, and Path 15 transmission projects and new generation facilities in Modesto and Blythe. Ken provided written documentation of the technical analysis and expert witness testimony to the CPUC and CEC regulatory commissions.

**Malibu Creek and Lagoon Resource Enhancement and Management Plan: California Coastal Conservancy (1997–99)**. Ken conducted the hydrology and geomorphology assessment, monitored estuarine hydrodynamics, and developed an estuarine model based on collected and historical data. Results from the analysis were used to develop a management plan for the California Coastal Conservancy with recommendations regarding beach breaching policies and target locations for stream and lagoon restoration efforts. Restoration concepts developed by Ken in 1998 have been recently applied to a revised Malibu Lagoon restoration plan in 2007.

**Lytle Creek Fire-Flood Historical Study: UCLA Institute of the Environment (1995)**. Ken conducted historical flood analysis using dendrochronological (tree-ring) evidence (primarily flood scars) to date and map the extent of large 19<sup>th</sup> century floods that occurred in the San Gabriel Mountains prior to the instrumental discharge record.

**Santa Monica Mountains Post-Fire Erosion Study: National Park Service (1993–96)**. Ken led a research team that monitored hillslope and stream channel erosion in a coastal watershed severely burned during the Green Meadows Fire of 1993. Erosion rates were analyzed for 3 years following the fire. The reduction of erosion due to the mitigating role of recovering vegetation was quantitatively analyzed. Erosion from hillslopes seeded aerielly immediately following the fire was compared to regions not artificially seeded to evaluate the effectiveness of re-seeding as an erosion control method. Ken provided post-fire erosion management recommendations to the Park Service.

Bay-Delta Authority Science

## SELECTED PUBLICATIONS AND PRESENTATIONS (CONT.)

- Conference: Sacramento, CA,  
October 4–6, 2004.
- Schwarz, K. M. and Kjelds, J. T. 2004. *Napa County Baseline Data Report: Hydrologic Modeling and Environmental Planning*. Abstract and Presentation: California Water and Environmental Modeling Forum (CWEMF) Annual Conference: Monterey, CA, February 24–26, 2004.
- Schwarz, K. M. 2003. *Watershed Hydrology and Planning Issues: a Survey from California Watershed Projects*. Abstract and Presentation: California County Planning Commissioners Assoc. (CCPCA) Annual Conference: Napa, CA, Nov. 6–9, 2003.
- Stein, E. D., Schwarz, K. M, and Hecht, B. 2003. *Role of Watershed-Scale Physical Processes in Shaping Habitat Requirements of Wetland-Dependent Fauna*. Abstract and Presentation: Society of Wetland Scientists (SWS) 24<sup>th</sup> Annual Meeting: New Orleans, LA, June 8–13, 2003.
- Schwarz, K. M. 2002. *Looking towards the Future of Functional Assessment: Using Physical Process Studies to Support the Hydro-Geomorphologic Method (HGM)*. Abstract and Presentation, Symposium of the Southern California Wetlands Recovery Project, Ventura, CA, October 18, 2002.
- Sutula, M., Ambrose, R., Callaway, J., Ferren, W., Horn, M., Josselyn, M., Madon, S., Macdonald, K., Schwarz, K., Stein, E., and Weisberg, S. 2002. *Improving Regional Planning of Wetland Ecosystem Restoration and Management in Southern California*. Science Panel Recommendations to the Governing Board of the Southern California Wetland Recovery Project: Westminster, CA, May 15, 2002.
- Stein, E., Schwarz, K. M, and Hecht, B. 2002. *Baseline Hydrologic and Geomorphic Assessments as Tools for Watershed and Floodplain Management*. Proceedings: Floodplain Management Association (FMA) 22nd Semi-Annual Conference (Floodplain Management Planning): San Diego, CA, April 7–10, 2002.
- Schwarz, K. M. 2002. *Using Geomorphic and Hydrologic Analyses in Watershed Management Planning: Recent Case Studies from Southern California*, Abstracts, 98th Meeting, Association of American Geographers, Human Impacts in Geomorphology Specialty Session. Los Angeles, CA, March 19–23,
- Ambrose, R., Callaway, J., Schwarz, K. M., Strecker, E., and Sudol, M. 2000. *Restoring an Urban Coastal Wetland: Ballona Wetlands Symposium*, Science Advisory Panel Presentation of the Ballona Wetlands Restoration Plan, Los Angeles, CA, May 17–18, 2000.
- Schwarz, K. M. 1999. *Hydrology and Morphodynamics, 1997–1998*: In R.A. Ambrose and A. R. Orme, Lower Malibu Creek and Barrier-Lagoon System: Resource Enhancement and Management, California State Coastal Conservancy and U.S. Environmental Protection Agency, pp. 2–2 to 2–112.
- Schwarz, K. M. and A. R. Orme. 1999. *Estuarine Behavior and Reorganization during an El Niño Year*, Malibu Creek, California, Abstracts, 93rd Annual Meeting, Honolulu, Hawaii: Association of American Geographers.
- Schwarz, K. M. 1997. *Variable Hillslope Erosion in a Post-Fire Chaparral Environment*, Abstracts, Fall Meeting, San Francisco, California: American Geophysical Union.
- Schwarz, K. M. 1996. *Variable Hillslope Erosion in a Post-Fire Chaparral Environment*, Abstracts, 90th Meeting, Charlotte, North Carolina: Association of American Geographers.
- Schwarz, K. M. 1994. *Post-Fire Erosion in the Santa Monica Mountains*, Field Trip Leader, Annual Meeting, Northridge, California: Association of Pacific Coast Geographers.