



**WILLIAM L. GRAF**

*University Foundation Distinguished Professor Emeritus*

**Department of Geography  
Telephone: 803-777-5234**

**University of South Carolina  
FAX: 803-777-4972**

**Columbia, SC 29208  
E-Mail: graf@sc.edu**

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## CONTENTS

<b>BIOGRAPHICAL SKETCH .....</b>	<b>2</b>
<b>CAREER BACKGROUND .....</b>	<b>3</b>
<b>AWARDS.....</b>	<b>4</b>
<b>POLICY RELATED ACTIVITIES .....</b>	<b>6</b>
<b>ACTIVITIES RELATED TO THE LAW .....</b>	<b>12</b>
<b>RESEARCH .....</b>	<b>16</b>
<b>GRANTS AND CONTRACTS .....</b>	<b>16</b>
<b>BOOKS.....</b>	<b>20</b>
<b>REFEREED PUBLICATIONS.....</b>	<b>23</b>
<b>OTHER PUBLICATIONS .....</b>	<b>30</b>
<b>PUBLISHED IMAGES.....</b>	<b>36</b>
<b>ORAL PRESENTATIONS.....</b>	<b>36</b>
<b>TEACHING.....</b>	<b>49</b>
<b>COURSES TAUGHT .....</b>	<b>49</b>
<b>GRADUATE ADVISING .....</b>	<b>50</b>
<b>SERVICE.....</b>	<b>53</b>

*William L. Graf* is Foundation University Distinguished Professor Emeritus in Geography at the University of South Carolina, and Senior River Scientist at The Nature Conservancy. His Ph.D. from the University of Wisconsin, Madison, with a major in physical geography and a minor in water resources management. His specialties include fluvial geomorphology and policy for public land and water, with emphasis on river channel change, human impacts on river processes and morphology, contaminant transport and storage in river sediments, and the downstream impacts of large dams. Much of his work has focused on dryland rivers, though for the past several years his work has been national in scale. He has served as an officer in the Geological Society of America, and has been President of the Association of American Geographers. In the area of public policy he has emphasized the interaction of science and decision-making, and resolution of the conflict between economic development and environmental preservation. His work has been funded by 61 grants and contracts from federal, state, and local agencies, ranging from the National Science Foundation, National Geographic Society, U.S. Department of Agriculture, U.S. Department of Justice, U.S. Environmental Protection Agency, Los Alamos National Laboratory, U.S. Bureau of Reclamation, and the U.S. Army Corps of Engineers to cities, tribes, and private companies. He has given more than 140 professional presentations and published more than 150 papers, articles, book chapters, and reports on geomorphology, riparian ecology, river management, and the interaction between science and public policy. His 7 authored or edited books include *Geomorphic Systems of North America*, *The Colorado River: Basin Stability and Management*, *Fluvial Processes in Dryland Rivers*, *Wilderness Preservation and the Sagebrush Rebellions*, and *Plutonium and the Rio Grande*, and chaired committees who wrote *New Strategies for America's Watersheds*, *Endangered and Threatened Species of the Platte River*, *Hydrology, Ecology, and Fishes of the Klamath River Basin*, and the second biennial report to Congress of the Committee on Independent Science Review of Everglades Restoration Progress. He has been member of committees that have produced an additional 8 books. He is principle author of *Dam Removal: Science and Decision Making*, and is presently working on *Dam the Consequences: An Environmental History of Dams and American Rivers*. His work has produced awards from the Association of American Geographers, Geological Society of America, and British Geomorphological Research Group, as well as a Guggenheim Fellowship, a Fulbright Senior Scholarship, the Founders' Medal awarded by the Queen Elizabeth II of Great Britain and the Royal Geographical Society, and the John Wesley Powell Award from the U.S. Geological Survey. He has taught more than 5,000 undergraduate students, while 38 PhD and Master's students have completed their degrees under his supervision. Graf has served as consultant and expert witness in 30 legal cases related to environmental issues and management. He has served as a science/policy advisor on 40 committees for federal, state, and local agencies and organizations. He is a Fellow of American Association for the Advancement of Science and a National Associate of the National Academy of Sciences. At the National Research Council he has been a member of the Board on Earth Sciences and Resources, Water and Science Technology Board, Committee on Glen Canyon Environmental Studies, Committee on Rediscovering Geography, four committees overseeing science for the restoration of the Florida Everglades, and committee on sediment issues in the Missouri River. He has also chaired the NAS/NRC Committee on Innovative Watershed Management, the Workshop to Advise the President's Council on Sustainable Development, Committee on Endangered Species and the Platte River, Committee to Advise the U.S. Geological Survey on research priorities, Committee to Review Further Studies of the Klamath River, second Committee for Independent Scientific Review of Everglades Restoration Progress, and Geographical Sciences Committee. He chaired the Heinz Center's committee on the Social, Economic, and Environmental Outcomes of Dam Removal and served on teams to advise Costa Rica on dam and river management, and the U.S. Fish and Wildlife Service on endangered riparian birds. President Clinton appointed him to the Presidential Commission on American Heritage Rivers to advise the White House on river management; he presently serves on the Environmental Advisory Board of the Chief of the U.S. Army Corps of Engineers.

## **CAREER BACKGROUND**

### **ACADEMIC TRAINING**

B.A., June 1969, University of Wisconsin, Madison  
M.Sc., January 1971, University of Wisconsin, Madison  
Ph.D., August 1974, University of Wisconsin, Madison

Disciplines: Major, Physical Geography  
Minor, Water Resources Management

Specialties: Fluvial Geomorphology  
Hydrology  
Public Land and Water Policy  
Aerial Photographic Interpretation  
Geographic Information Analysis

### **EXPERTISE**

Primary: fluvial geomorphology, hydrology, riparian ecology, and the impact of human activities on rivers; intersection of science for public land and water policy

Secondary: the conflict between economic development and environmental preservation and restoration; application of science to decision-making; geographic information science for environmental systems

### **PROFESSIONAL EXPERIENCE**

1969: Teaching Assistant, Department of Geography, University of Wisconsin, Madison; Physical Geography

1969-70: Research Assistant, Department of Geography, University of Wisconsin, Madison; Remote Sensing

1970-71: Research Assistant, Department of Geography, University of Wisconsin, Madison; Aerial Photographic Interpretation and Geomorphology

1971-1974: Intelligence Officer (Captain), U.S. Air Force, Lecturer, Armed Forces Air Intelligence Training Center, Lowry Air Force Base, Denver; Aerial Photographic Interpretation, Computer Applications of Geographic Intelligence

1974-78: Assistant Professor and Associate Professor, Department of Geography, and Research Associate, Institute of Urban and Regional Research, University of Iowa

1978-2001: Associate Professor, Professor, and Regents' Professor, Department of Geography, Arizona State University

1981-83: Director, Center for Southwest Studies, Arizona State University

2001- 2011: Foundation University Professor, Professor of Geography, and Professor of the School of the Environment, University of South Carolina

2006-2010: Chair, Department of Geography, University of South Carolina

2010 - 2011: Interim Associate Dean for Research, College of Arts and Sciences, University of South Carolina

2011 - :Foundation University Professor Emeritus, University of South Carolina

2011 - : Senior River Scientist, The Nature Conservancy (Volunteer Appointment)

### **PROFESSIONAL ORGANIZATIONS**

Association of American Geographers and the Geomorphology Specialty Group of the Association

Geological Society of America and the Quaternary Geology and Geomorphology Division of the Society

American Association for the Advancement of Science.

### **AWARDS**

1. *Fellowship and Scholarship*, 1970, U.S. Department of Interior, Water Pollution Control Administration (scholarship for water resources management based on academic record)
2. *Fellowship*, 1982, Geological Society of America (in recognition of published contributions in the earth sciences)
3. *G. K. Gilbert Award for Excellence in Geomorphological Research*, 1984, by the Geomorphology Specialty Group of the Association of American Geographers (in recognition of published research in the fluvial geomorphology of the American West)

4. *Gladys W. Cole Memorial Research Award for Arid Region Geomorphological Research*, 1984, by the Quaternary Geology and Geomorphology Division of the Geological Society of America (in recognition of published research in the fluvial geomorphology of arid regions and a proposed study of heavy metal transport in dryland rivers)
5. *Fellowship*, 1985, Arizona-Nevada Academy of Science (in recognition of outstanding contributions to science and continued support of the Academy)
6. *Arizona State University Distinguished Research Professorship Award*, 1987, by the University Graduate Council and the Graduate College (in recognition of research in geomorphology and training of graduate students)
7. *Honors Award of the Association of American Geographers*, 1990, (in recognition of research in geography and geomorphology, teaching of students at all levels, and service to the profession)
8. *Distinguished Visiting Professorship*, 1992, University College London (in recognition of research contributions to geography and earth sciences)
9. *John Simon Guggenheim Foundation Fellowship*, 1993 (in recognition of research contributions in science and policy and for support of research on American rivers)
10. *Thomas B. Nolan Distinguished Lectureship*, 1994, U.S. Geological Survey (in recognition of research and writing on the role of science in public policy for rivers)
11. *Regents' Professorship*, 1994 and thereafter, Arizona State University (in recognition of research, teaching, and service)
12. *Graduate Mentor Award*, 1998, Arizona State University (in recognition of contributions to graduate training through mentoring and career preparation of graduate students)
13. *Fulbright Senior Scholar Fellowship*, 1999, Council for the International Exchange of Scholars, U.S. Agency for International Development, and the New Zealand/United States Educational Foundation (for research and lecturing on water resources and river processes)
14. *Kirk Bryan Award*, 1999, Geological Society of America (in recognition of distinguished contributions to the science of geomorphology)
15. *David Linton Research Award*, 2000, British Geomorphological Research Group (to recognize geomorphology and environmental change research)

16. *Founder's Medal of the Royal Geographical Society*, 2001, Her Majesty, Queen of Great Britain and the Royal Geographical Society (in recognition of research on rivers and contributions to the use of environmental science in public policy)
17. *National Associate of the National Academy of Sciences*, 2003, National Academy of Sciences (in recognition of contributions to science, public policy, and the National Research Council)
18. *John Wesley Powell Award*, 2005, U.S. Geological Survey (in recognition of significant contributions to the advancement of the U.S. Geological Survey mission)
19. *Meredith F. Burrill Award*, 2006, Association of American Geographers (in recognition of exceptional merit and quality in leading the effort for science and policy for wildlife and the Platte River, and in recognition of the book *Endangered and Threatened Species of the Platte River*)
20. *Mel Marcus Career Achievement Award*, 2008, Association of American Geographers (in recognition of career contributions to research, teaching, and service in geomorphology)
21. *Elected Fellow*, 2009, American Association for the Advancement of Science (in honor for contributions to the physical science of rivers and for serving as a catalyst for connections between science and policy for rivers)
22. *Water Resources Distinguished Career Award*, 2012, Association of American Geographers, Water Resources Specialty Group (for contributions to science and policy for water resources)

## **POLICY-RELATED ACTIVITIES**

### **ADVISORY CONSULTATIONS**

**(Only Initial Year Given)**

1. 1979: U.S. Army Corps of Engineers, Phoenix Urban Study Office (research and advisory role; environmental impact assessment of flood control works, Salt and Gila Rivers, Arizona)
2. 1980: Camp, Dresser, McKee, Inc., Walnut Grove, California (report generation; geomorphology and geology of the western Salt River Valley, Arizona)
3. 1983: Lower Colorado Regional Office, U.S. Bureau of Reclamation and the Museum of Northern Arizona, Flagstaff, Arizona (advisory role, field investigations, report generation; archeological and geomorphic evidence along the Tucson Aquaduct, decisions on balance between preservation and development of Central Arizona Project)

4. 1986: U.S. Army Corps of Engineers, Vicksburg Waterways Experiment Station (advisory role; location of weapons test site in the Colorado Plateau region)
5. 1987: Arizona Department of Transportation (advisory role; hydraulics and geomorphology of prehistoric canal systems, Salt River Valley, Arizona)
6. 1987: Sierra Delta Corporation (research, calculations; sediment yield and transport in desert mountains, fans, and flood plains, Newberry Mountains, Nevada, planning decisions for development of Laughlin, Nevada)
7. 1993: Arizona State Land Department, Engineering Division (technical advisor; fluvial geomorphology of rivers in Arizona; issue of state versus federal ownership of river beds)
8. 1994: U.S. Army Corps of Engineers, Planning Office, Arizona Regional Office (advisory role, report writing, planning team participation, environmental restoration of the Lower Gila River, Arizona)
9. 1994: U.S. Army Corps of Engineers, Planning Office, Arizona Regional Office (advisory role, report writing, planning team participation, environmental restoration of the Lower Salt River, Arizona)
10. 1995: Arizona Department of Environmental Protection, Non-Point Source Division, Riparian/Wetlands Unit (advisory role, management of sediment and arsenic pollution in the Verde River, Arizona)
11. 1995: Los Alamos National Laboratory, Geosciences Division (advisory role, design and policy for sampling, monitoring, and surveillance of environmental quality with respect to heavy metals and radionuclides in New Mexico regional rivers)
12. 1997: Arizona Department of Environmental Quality, Water Quality Division (advisory role, heavy metal contamination of a wilderness river by mine tailings, Aravaipa Creek and Klondyke Mine, Arizona)
13. 1997: Arizona Department of Game and Fish (advisory role, development of assessment processes for riparian areas on public lands)
14. 1999: U.S. Environmental Protection Agency and U.S. Bureau of Reclamation (advisory role, restoration of the New River, Salton Sea area, California)
15. 2000: Government of Costa Rica, (advisory role, river management and development, Tempisque River Basin, Costa Rica)

16. 2002: Santee-Cooper, semi-public power utility, Monks Corner, South Carolina (advisory role, river channel change and flooding, dam operations)
17. 2003: Kinnickinnic River Land Trust, River Falls, Wisconsin (advisory role, river restoration)
18. 2003: U.S. Department of Energy, Grand Junction, Colorado (report review, advisory role, river channel change, radionuclide pollution potential)
19. 2005: Council of Environmental Deans and Directors, Washington, D. C. (representative of University of South Carolina for University-Federal Dialogue on Environmental Research)
20. 2005: Consulting Advisor, National Park Service, Inventory and Monitoring Program, Southeast Coast Network, Atlanta (Consulting Advisor, River hydrology, geomorphology, and ecology monitoring).
21. 2005: Consulting Advisor, The Nature Conservancy, Global Freshwater Ecosystems Project Initiative (consultation, advice, planning assistance, river ecology)
22. 2009: External Peer Review, Restoration of the Middle Rio Grande, New Mexico, U.S. Bureau of Reclamation (consulting review, advice, planning assistance, river geomorphology, hydrology, and ecosystems)
23. 2010: External Peer Review, Fish Passage and Management for the Rio Grande Silvery Minnow, San Acacia Reach of the Middle Rio Grande (river geomorphology and hydrology for aquatic habitat)
24. 2012: External Peer Review, Department of the Interior's Klamath Secretarial Determination Overview Report (river geomorphology and hydrology, Secretary-level advice)
25. 2012. Science and Policy for Ecosystem Restoration and Water Management, COMPASS team member to brief and hold discussions with the Executive Office of the President, Office of Science and Technology, Council on Environmental Quality, Congressional Staff, Congressional Research Service, and Office of Management and Budget.
26. 2012: Management of Savannah River, South Atlantic Landscape Conservation Cooperative, Savannah, Georgia (invited member of multi-agency discussion group)
27. 2012: Climate Data and Land Management for the Carolina Low Country and Coast, NOAA Sponsored Symposium (invited member of multi-agency discussion group)
28. 2013: Ecosystem Services and Federal Decision Making; COMPASS team to brief and hold



discussions with the Executive Office of the President, Office of Science and Technology, Council on Environmental Quality, Congressional Staff, Congressional Research Service, and Office of Management and Budget.

**MEMBERSHIP ON POLICY ADVISORY COMMITTEES  
(Only Initial Year Given)**

1. 1976: Iowa Water Resources Council, Member
2. 1978: Governor's Commission on Arizona Environment, Member
3. 1979: National Park Service and Bureau of Land Management Planning Team, Blue Hills-Henry Mountains Natural Area, Utah
4. 1980: National Park Service, Public Education Team, Capitol Reef National Park, Utah
5. 1981: National Park Service, River Management Planning Team, Dinosaur National Monument, Utah
6. 1981: Member, Arizona Mapping Advisory Council, Member
7. 1984: National Park Service, River Management Planning Team, Canyonlands National Park, Utah
8. 1986: National Park Service, Management Planning Team, Glen Canyon National Recreation Area, Arizona and Utah
9. 1986: National Research Council, National Academy of Science, Committee to Review Glen Canyon Environmental Studies, Member
10. 1988: National Science Foundation, Review Panel, Geography and Regional Science Program, Member
11. 1989: Arizona Board on Historic and Geographic Names, Governor Appointee
12. 1991: National Research Council, National Academy of Science, Committee to Advise Bureau of Reclamation on Glen Canyon Environmental Studies, II
13. 1992: National Research Council, National Academy of Science, Water Science and Technology Board, Member

14. 1993: National Research Council, National Academy of Science, Planning Committee, Water Quality Impacts of Metal Mining and Milling, Chair
15. 1994: Member, Technical Advisory Board on Watercourse Modification, Arizona Department of Environmental Quality
16. 1994: National Research Council, National Academy of Science, Committee on Integrative Sciences for Earth's Upper Crust, Co-Chair
17. 1995: National Research Council, National Academy of Science, Committee on Innovative Watershed Management, Chair
18. 1995: National Research Council, National Academy of Science, Committee on Alluvial Fan Flooding Processes, Board Liason
19. 1995: National Research Council, National Academy of Science, Committee on Rediscovering Geography, Member
20. 1996: National Research Council, National Academy of Science Workshop to Advise the President's Council on Sustainable Development, Chair
21. 1997: Presidential Western Water Policy Advisory Review Commission, Invited Testimony and Report Recommendation Submissions
22. 1998: National Research Council, National Academy of Science, Board on Earth Sciences and Resources, Member
23. 1998: National Research Council, National Academy of Science, Committee on Geography, Member
24. 1998: Committee to Advise the President on the American Heritage Rivers Initiative, Member (Presidential Appointment)
25. 1998: U.S. Fish and Wildlife Service, Southwester Willow Flycatcher (Endangered Species) Recovery Policy Technical Team, Member
26. 1999: Committee of Visitors, National Science Foundation, Geography and Regional Science Program, Member
27. 2000: Committee on the Economic, Social, and Environmental Outcomes of Dam Removal, Heinz Center for Science, Economics, and the Environment, Chair

28. 2000: National Research Council, National Academy of Science, Committee on Research Priorities in Geography at the U.S. Geological Survey, Chair
29. 2002: National Research Council, National Academy of Science, Committee on Ecosystem Science Initiatives, Everglades National Park, Member
30. 2003: National Research Council, National Academy of Science, Committee on the Restoration of the Greater Everglades Ecosystem, Member
31. 2003: National Research Council, National Academy of Science, Committee on Endangered Species and the Platte River Basin, Chair
32. 2004: U.S. Geological Survey, Geography Science Planning Committee, Member
33. 2004: National Research Council, National Academy of Science, Committee for Independent Science Review for Everglades Restoration -- I, Member
34. 2004: South Carolina Conserved Lands Coalition, Founding Member
35. 2005: Advisory Committee, Model Interstate Water Compact Project, Utton Transboundary Resources Center, School of Law, University of New Mexico, Member
36. 2005: Energy and Water Nexus Advisory Committee, U.S. Department of Energy and Sandia National Laboratory, Member
37. 2006: Salmon and Water Management in the Klamath River Committee, National Research Council, National Academy of Science, Chair
38. 2007: National Research Council, National Academy of Science Committee for Independent Science Review of Everglades Restoration Progress -- II, Chair
39. 2007: Steering Committee for the Congaree Waterfront Park Initiative, Columbia, South Carolina, member
40. 2008: Environmental Advisory Board, Chief of the U.S. Army Corps of Engineers, member
41. 2008: Advisory Team, Hydrologic Synthesis Project, National Science Foundation and University of Illinois, member
42. 2008: Committee on Missouri River Recovery and Associated Sediment Management Issues, National Research Council, member

43. 2009: National Research Council, National Academy of Science Committee for Independent Science Review of Everglades Restoration Progress -- III, Member
44. 2009: National Research Council, National Academy of Science, Geographical Sciences Committee, Chair
45. 2009: Independent Science Review Committee for Minimum Flows in South Carolina Rivers, Center for Humans and Nature, Co-Organizer and Technical Chair
46. 2009: Review Panel, Coupled Natural and Human Systems Dynamics Program, National Science Foundation, Member
47. 2010: National Research Council, National Academy of Science Committee for Independent Science Review of Everglades Restoration Progress -- IV, Member
48. 2011: Environmental Affairs Committee, American Geological Institute, member
49. 2012: National Research Council, National Academy of Science, Committee on Ecological Risk Under FIFRA and ESA, member
49. 2012: Peer Review of Science for Secretarial Determination on Klamath Dam Removal (Secretary-level review of science for river management and dam removal on the Klamath River, Oregon and California)
50. 2012: National Research Council, National Academy of Science Committee for Independent Science Review of Everglades Restoration Progress -- V, Member
51. 2013: U.S. Army Corps of Engineers, Headquarters, Civil Works Red Team Review, Proposed FY14 Starts, Washington, DC, member

#### ACTIVITIES RELATED TO THE LAW

##### (Only Initial Year Given)

1. 1981: O'Connor, Cavanaugh, Phoenix, Arizona (*Vittori vs. Maricopa County Water Conservation District Number 1*, for the defense, research advisory role, depositions, court appearances; channel instability, fluvial processes, soils, flooding downstream from an irrigation reservoir, Agua Fria River, Arizona)
2. 1981: O'Connor, Cavanaugh, Phoenix, Arizona (*van Dale vs. Anderson, La Paloma Ranch, and Northwestern Mutual Life Insurance*, for the defense, advisory role, depositions;

sedimentation and upstream flooding in an unstable river channel near an irrigation diversion dam, Gila River, Arizona

3. 1981: Goldstein, Kingsley, and Myers, Inc., Phoenix, Arizona (*First American Title Insurance et al. vs. Salt River Project et al.*, for the plaintiff, research, report generation, depositions, downstream effects of sand and gravel mining operations in a braided channel, Salt River, Arizona)
4. 1982: Cain and Wolf, Inc., Phoenix, Arizona (advisory role in negotiations, diversion of natural drainage by urban development, Cave Creek Valley, Arizona)
5. 1982: Lewis and Roca, Inc., Phoenix, Arizona (*Navajo Nation et al. vs. United Nuclear Corporation*, for the defense, research, advisory role, report generation, sediment transport downstream from a tailings pond spill near a uranium mill, Puerco River, New Mexico)
6. 1982: Streich, Long, Weeks & Cardon, Phoenix, Arizona (*Arizona Board of Regents vs. Hubbard, Wadsworth, Jenson & Associates et al.*, for the plaintiff, data acquisition; building foundation stability associated with river channel change, Sun Devil Stadium and the Salt River, Arizona)
7. 1983: Brown and Bain, Inc., Phoenix, Arizona (*Sidney vs. Zah*, for the defense, advisory role, research; aerial photographic interpretation of land use, Moenkopi, Arizona)
8. 1983: Ellis and Baker, P.C., Phoenix, Arizona (*United States vs. Roosevelt Water Conservation District*, for the defense, advisory role, research; stream channel instability on irrigated valley alluvium, Queen Creek, Arizona)
9. 1984: Indian Claims Section, Land and Natural Resources Division, U.S. Department of Justice, Washington, D.C. (*White Mountain Apache Tribe vs. United States*, for the defense, advisory role, research, report generation, court appearances; erosion and sedimentation on mountain watersheds with climatic change and overgrazing, White Mountain Apache Reservation, Arizona)
10. 1984: Indian Claims Section, Land and Natural Resources Division, U.S. Department of Justice, Washington, D.C. (*Navajo Tribe vs. United States*, for the defense, advisory role, research, report generation, erosion and sedimentation on plateau watersheds with climatic change and overgrazing, Navajo Reservation, Arizona, Utah, and New Mexico)
11. 1985: City of Thousand Oaks, California (*Broom vs. City of Thousand Oaks*, for the defense, advisory role, field investigations, report generation; flooding, erosion, sedimentation, and urbanization, Calleguas Creek, California)

12. 1987: O'Connor, Cavanaugh, Phoenix, Arizona (advisory role; interaction of flood-water and urban development, Mesa and Apache Junction, Arizona)
13. 1987: (*Piccoli vs. Lyng*, for the plaintiff, research, court appearance; reservoir characteristics, Bartlett Lake on the Verde River, Arizona)
14. 1987: Haralson, Kinerk, and Morey (*Transamerica Title vs. Columbia Group*, for the plaintiff, research, advisory role, deposition; flooding, river channel change, and the impact of sand and gravel mining, Santa Cruz River, Tucson, Arizona)
15. 1988: Litigation Section, Land and Resources Division, U.S. Department of Justice (*Junker vs. United States*, for the defense, advisory role, field investigations, deposition; flooding on pediments and the impact of the Central Arizona Project canal)
16. 1989: City Attorney, City of Phoenix, Arizona (*Colonnade Mall vs. Marriner Cardon et al.*, for the defense, research, report generation; photogrammetric analysis of urban aerial photography)
17. 1991: Indian Claims Court (*Globe Equity No. 59, United States and Gila River Indian Community vs. Gila Valley Irrigation District et al.*, for the court as a neutral party, advice and consultation; environmental change and hydrologic response in stream flows)
18. 1991: Perry, Pierson & Kolsrud, Havasupai Tribe (*In the Matter of Groundwater Quality Protection Permit No. G-0004-03*, for the plaintiff, research, testimony, Hearings before Hearing Officer of the Arizona Department of Environmental Quality; heavy metal and radionuclide transport in streams in the vicinity of a proposed mine, northern Arizona)
19. 1991: Jones, Skelton & Hochuli (*Brogdon, et al. vs. City of Phoenix*, for the defense, research, review, advisory role, field investigations; the impact of a waste-water treatment plant on channel location and stability in the Salt River, central Arizona)
20. 1992: Brown and Bain (*Masayeva vs. Zah*, for the defense, research, advisory role, testimony; aerial photographic interpretation for environmental, agricultural, and land use questions in the Navajo and Hopi Nations)
21. 1992: Litigation Section, Land and Resources Division, U.S. Department of Justice (*Cuyapaipe Band of Mission Indians vs. United States*, for the defense, advisory role; land use and erosion)
22. 1993: National Wildlife Federation (*National Wildlife Federation et al. vs. Bureau of Land Management*, for the plaintiff, direct and rebuttal testimony, advisory role; riparian environments, grazing, and stream processes, central Colorado Plateau)

23. 1995: Haralson, Kinerk & Morey (*Tumbling-T Ranches et al. v. Paloma Investment et al.*, for the plaintiff, advisory role, flooding and downstream effects of a dam breach, science and public policy for management; Gillespie Dam, Gila River, Arizona)
24. 1995: Hualapai Tribe and Daniel H. Israel, P.C. (*Hualapai Tribe v. United States*, for the plaintiff, advisory role, navigability of the Colorado River in the Grand Canyon region, Arizona)
25. 1996: U.S. Department of Justice, Environment and Natural Resources Division (*United States v. Aria, et al.*, for the plaintiff, advisory role, evaluation of evidence and documents, guidance on trial examination of witnesses, channel instability and boundary issues on the Lower Colorado River, Arizona and California)
26. 1998: Jones, Skelton & Hochuli (*Aline, et al. V. Premiere International Corp.*, for the defendant, advisory role, collection and evaluation of data, preparation of report, trial preparation, flash flood events, Southern Colorado Plateau and Antelope Canyon, northern Arizona)
27. 2003: Haralson, Kinerk & Morey (*Tumbling-T Ranches et al. v. Paloma Investment et al.*, (appeal case; for the plaintiff, advisory role, depositions, flooding and downstream effects of a dam breach, science and public policy for management; Gillespie Dam, Gila River, Arizona)
28. 2004: Santee Cooper (*Saunders v. South Carolina Public Service Commission*, for the defendant, advisory role, identification of and assistance for expert witnesses, flooding, dam management, Santee Dam, Santee River, South Carolina)
29. 2005: American Wetlands Society (*Rapanos v. U.S.* and *Carabell v. U.S. Army Corps of Engineers* (amicus curiae, advisory role, write a portion of the amicus brief for the U.S. Supreme Court, wetland and river processes)
30. 2005: American Rivers, Inc. (*S.D. Warren v. Board of Environmental Protection*, amicus curiae, advisory role, write a portion of the amicus brief for the U.S. Supreme Court, effects of hydroelectric dams on downstream rivers)
31. 2011: Salmon, Lewis and Weldon, LPC (*Johnson Stewart et al. v. Salt River Project*, advisor, investigation of river channel change and river-bed mining on the Salt River, Arizona)

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**RESEARCH****GRANTS AND CONTRACTS****(Only initial year given)**

1. 1974: The Impact of Suburban Development on Drainage Networks; Summer Research Fellowship, University of Iowa
2. 1975: Suburban Development and Drainage Network Change; Office of Water Research and Technology, U.S. Department of Interior
3. 1975: The Impact of Man-Introduced Saltcedar on the Green River, Utah; University Research Council, University of Iowa
4. 1975: Gully and Channel Erosion on the Urban Fringe; National Science Foundation
5. 1976: Environmental Impact Assessment Course Development and Research; University Council on Teaching, University of Iowa
6. 1977: Landscape change on the Green River, Utah and Colorado; National Geographic Society
7. 1978: Arroyo Development and the Invasion of Tamarisk; National Science Foundation
8. 1978: Environmental Change on the Green River Utah; Summer Research Fellowship, University of Iowa
9. 1979: Phreatophyte Growth and Channel Stability on the Salt and Gila Rivers, Central Arizona; U.S. Army Corps of Engineers
10. 1979: The Paleohydrology of Skunk Creek and the Adobe Dam Site, Central Arizona; Museum of Northern Arizona (with Richard A. Earl)
11. 1980: Transportation and Storage of Natural Mercury in Stream Sediments of the Southern Colorado Plateau; National Geographic Society
12. 1980: Sediment Transportation in a Network with Spatially Varied Flow; U.S. Department of Agriculture, Southwest Rangeland Watershed Research Center
13. 1981: Wilderness and the Sagebrush Rebellion; Faculty Grant-in-Aid, Arizona State University



14. 1981: Impacts of Wilderness Land Management; Dean's Research Assistant Fund, College of Liberal Arts, Arizona State University
15. 1981: Channel Adjustments in the Salt River, Phoenix Metropolitan Area, Maricopa County, Arizona; U.S. Army Corps of Engineers
16. 1982: Mercury in Stream Sediments, Lake Powell Region; Faculty Grant-in-Aid, Arizona State University
17. 1982: Spatial/Temporal Variability in Fluvial Processes in Canyons of the Central Colorado Plateau; National Science Foundation
18. 1982: Transport and Storage of Natural Mercury in Stream Sediments of the Southern Colorado Plateau, Second Phase; National Geographic Society
19. 1982: Method to Evaluate Erosion Damages Associated with Unstable Channels; U.S. Army Corps of Engineers
20. 1982: Dynamics and Control of Phreatophytes, Upper Gila River, Arizona; U.S. Army Corps of Engineers
21. 1982: Public Policy for Land Use Planning Near Desert Mountains, City of Scottsdale, Arizona (with Bruce Rhoads)
22. 1983: Phreatophyte Communities and Fluvial Processes, San Carlos Reservoir Area, Arizona; U.S. Army Corps of Engineers
23. 1983: Edit of the Arizona File of the United States Geographic Information System, Phase II; U.S. Geological Survey and the National Board of Geographic Names
24. 1983: Phreatophyte Removal, Water Savings, and Replacement Species for Saltcedar, Gila River Basin, Arizona; U.S. Army Corps of Engineers
25. 1984: Transport of Heavy Metals in Sediments of Arid-Region Rivers; Geological Society of America
26. 1984: Erosion and Land Management on the Fort Apache Indian Reservation, Arizona; U.S. Department of Justice
27. 1985: Erosion and Sedimentation on the Navajo Reservation, Arizona, New Mexico, and Utah; U.S. Department of Justice

28. 1985: The Paleohydrology of Lake Pagahrit, Utah; National Geographic Society
29. 1986: Spatial Analysis of Heavy Metals in Arid Region Rivers; National Science Foundation
30. 1987: Sediment Yield and Transport, Newberry Mountains and Laughlin Bay, Nevada; Sierra Delta Corporation
31. 1987: Radiocarbon Analysis of Sediment Samples from Lake Canyon, Utah; Mini-Grant, College of Liberal Arts and Sciences, Arizona State University
32. 1988: Sediment Transport and Deposition of Radionuclides in the Rio Grande, 1943-1988; Los Alamos National Laboratory
33. 1990: Modeling Radionuclide Transport and Storage in Rivers; Los Alamos National Laboratory
34. 1990: Selenium Transport in the Upper Colorado River Basin; National Geographic Society
35. 1991: Center for Southwestern Environmental Research and Policy; with 9 co-investigators; U.S. Environmental Protection Agency
36. 1991: Selenium Dynamics of the Colorado River Basin; U.S. Environmental Protection Agency
37. 1992: Contaminant Transport and Storage in the Canyons of the Pajarito Plateau; Los Alamos National Laboratory
38. 1993: Riparian Zone Climatic Studies Below Glen Canyon Dam, Grand Canyon, Arizona; National Geographic Society (with D. M. Stanitski, M. G. Marcus, and A. J. Brazel)
39. 1994: Geomorphic Assessment and Evaluation for Environmental Restoration of the Lower Salt and Lower Gila Rivers, Arizona; U.S. Army Corps of Engineers
40. 1994: Channel Stability and Project Evaluation; Graf portion of Flood Management Policy Study, Salt and Gila Rivers (8 investigators); Flood Control District of Maricopa County, Arizona
41. 1995: Geomorphology and Policy for Contaminant Sampling in Regional Rivers of Northern New Mexico; Los Alamos National Laboratory
42. 1995: Geomorphology and Riparian Habitats of Mogollon Rim Streams, Arizona; Arizona Department of Game and Fish (with Thad Wasklewicz)

43. 1996: Geomorphology and Policy for Sediment in the Verde River System, Arizona (Graf as co-PI with K. Randall of Arizona Department of Environmental Quality) U.S. Environmental Protection Agency
44. 1996: NSF Fellowship Grant, "Relationship Between Terrain and Snowpack Accumulation for Avalanche Forecasting," PI/PD (Graf as co-advisor with M. G. Marcus, for Karl Birkeland, Dissertation Improvement Grant), National Science Foundation
45. 1997: Restoration of Aravaipa Creek in the Vicinity of Klodyke Mine, Arizona; Arizona Water Protection Fund (minor partner with Arizona Department of Environmental Quality)
46. 1997: Functional Assessment of Riparian Systems; Arizona Department of Game and Fish (jointly with 5 ecologists and environmental managers)
47. 1997: Downstream Geomorphic Impacts of Large Dams on American Rivers; National Science Foundation
48. 1997: River Channel Change in an Urbanizing Environment; Long Term Ecological Research Site Supplemental Grant, National Science Foundation
49. 1998: Stream Power in Mountain Rivers (Graf as advisor for Mark Fonstad, Dissertation Improvement Grant), National Science Foundation
50. 1998: Downstream Impacts of Dams on the Elwha River, Washington (Graf as advisor for Molly Pohl, Dissertation Improvement Grant), National Science Foundation
51. 1999: Fulbright Senior Scholar Grant (Council for the International Exchange of Scholars, U.S. Agency for International Development, and the New Zealand/United States Educational Foundation (for research and lecturing on water resources and river processes).
52. 2000: Integrative Graduate Education and Research Training in Urban Ecology (S. G. Fisher, W. L. Graf, N. B. Grimm, E. J. Hackett, and C. L. Redman) National Science Foundation.
53. 2000: Research Priorities in Geography at the U. S. Geological Survey (proposal for the Board on Earth Sciences and Resources, National Research Council), U. S. Geological Survey.
54. 2001: Economic, Social, and Environmental Outcomes of Dam Removal (with the Heinz Center, Washington, D.C.), Federal Emergency Management Agency, Bureau of

Reclamation, and Electrical Power Research Institute.

55. 2002: Science for Decision Making in Dam Removals (with the Heinz Center, Washington, D.C.), Federal Emergency Management Agency.
56. 2005: Fish Habitat Loss in Big Creek, Chattahoochie River National Recreation Area, National Park Service.
57. 2005: Geomorphology, Hydrology, and Vegetation of Near-Channel Floodplain Environments (with Kimberly M. Meitzen), Congaree River, National Park Service
58. 2005: Congaree Floodplain Decision Support Project: Assessing the Extent of River Regulation Effects on Resources Within and Around Congaree National Park, National Park Service
59. 2006: Forest Recovery and Hydrologic Modeling on New Park Lands at Congaree National Park (with John Kupfer), National Park Service
60. 2006: Distribution of Trace Elements in Organic Soils of Congaree National Park (with Kimberly Meitzen), National Park Service
61. 2007: Climate Change Effects on U.S. Water Resources Management (Graf as advisor for Laura J. Stroup, Dissertation Improvement Grant), National Science Foundation
62. 2007: Flood-Plain Decision Support System for Congaree National Park, Phase 2 (with Kimberly Meitzen), National Park Service.
63. 2007: Environmental Science for Decision Making, Congaree National Park (with Laura Stroup), National Park Service.
64. 2008: Magnitude and Patter of Floodplain Sedimentation in the Bates Fork Tract, Congaree National Park (with John Kupfer as lead PI), National Park Service.

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6. Graf, W. L. 1994. *Plutonium and the Rio Grande*. New York and London: Oxford University Press, 329 p. [Winner, Kirk Bryan Award, Geological Society of America]
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1. National Research Council, Committee to Review Glen Canyon Environmental Studies (Graf as committee member of authoring committee), 1987. *River and Dam Management: A Review of the Bureau of Reclamation's Glen Canyon Environmental Studies*. Washington, D.C.: National Academy of Sciences Press.
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24. Graf, W. L. 1984. Review of Evapotranspiration/Water Salvage Research. U.S. Army Corps of Engineers, Phoenix Urban Study Office, Contract Report DACW09-83-M-2623, 16 p.
25. Graf, W. L. 1984. Thinking Like a River: Reflections on the Gila. *Arizona Waterline* Summer 1984:1-4.
26. Graf, W. L. 1984. Mega-Geomorphology, Book Review. *Geographical Review* 74:402-404.
27. Graf, W. L. 1985. Morphotectonics. *Geotimes* 30(3):10-11.
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34. Graf, W. L. 1987. Predicted 100-Year Sediment Inflow to Laughlin Bay, Nevada. Sierra Delta Corporation Report, 15 p.



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36. Graf, W. L. 1988. The State of the Rio Grande/Rio Bravo, Book Review. *Geographical Review* 78:445-447.
37. Graf, W. L. 1988. Channel Change Along the Northern Rio Grande, 1945-1988: Implications for Contaminant Transport. Environmental Surveillance Group, Los Alamos National Laboratory, 116 p.
38. Graf, W. L. 1989. Photogrammetric Analysis in the Matter of *Colonnade Mall vs. Marriner Cardon et al.* City Attorney's Office, City of Phoenix, Arizona, 34 p.
39. Graf, W. L. 1989. Lake Powell, Book Review. *Journal of Geography* 43:243-244.
40. Graf, W. L. 1991. The Geomorphology of Plutonium in the Northern Rio Grande. Environmental Surveillance Group, Los Alamos National Laboratory, 315 p.
41. Committee on Glen Canyon Environmental Studies (Graf as writing author). 1991. Evaluation of Hydrology and Sediment Studies. National Academy of Sciences, National Research Council Report, 5 p.
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51. Graf, W. L. 1997. Changing Rivers, Book Review. *Regulated Rivers: Research and Management* 13:1-2.
52. Graf, W. L., and Randall, K. 1998. *A Guidance Document for Monitoring and Assessing the Physical Integrity of Arizona Streams*. Arizona Department of Environmental Quality, Contract Report 95-0137, 114 p.
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56. Graf, W. L., 2003. Testimony in Support of the Congaree National Park Act of 2003, U.S. Senate, 5 p.
57. Graf, W. L., 2004. Not Clueless, Just Skill-less, in *Presidential Musings from the Meridian: Reflections on the Nature of Geography by Past Presidents of the Association of American Geographers*, ed. by M. D. Nellis, J. Monk, and S. L. Cutter, Morgantown: West Virginia University Press, p. 66-69.
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- Meridian: on the Nature of Geography by Past Presidents of the Association of American Geographers*, ed. by M. D. Nellis, J. Monk, and S. L. Cutter, Morgantown: West Virginia University Press, 2004, p. 173-176.
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62. Plewa, T. M. and Graf, W. L., 2005. *Hydrologic Variation of the Congaree River Near Congaree National Park, South Carolina*, Report for Congaree National Park, January 29, 2005, 25 p.
63. Graf, W. L., 2005, Science for Water Development and Wildlife Preservation, in *The Role of Science in Solving the World's Water Problems*, ed. by W. Jury and H. Vaux, , D.C.: National Academy of Sciences, Compact Disk with Presentations of the Sackler Symposium on The Role of Science in Solving the World's Water Problems, October 8-10, 2004, Irvine, California. [Electronic version of presentation including voice and projected images]
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65. Sustainable Ecosystems Institute [W. L. Graf one of 6 authors], 2009. Review of Rio Grande Restoration Plan, San Acacia to San Marcel, New Mexico. Report for U.S. Bureau of Reclamation, Albuquerque, New Mexico. Santa Barbara, California: Sustainable Ecosystems Institute, 29 p.
66. Lewis Link, William Graf, Jeffrey Marqusee, and Rennie Sherman, 2010. *Peer Review of the Environmental Laboratory U. S. Army Engineer Research and Development Center, Vicksburg, Mississippi*. Vicksburg, Miss.: U.S. Army Corps of Engineers, November 4, 2010, 35 p.

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68. Graf, W. L., 2011. The Business of Midlands Rivers. MidlandsBiz, on line article 1246, at <http://www.midlandsbiz.com/news/markettrends/1246/>.
69. W. L. Graf one of six authors and two editors, 2012. *Review of Science for the Secretarial Decision on the Removal of Four Dams on the Klamath River, Oregon and California*, Jacksonville, Florida: Atkins North America, Inc., 43 p.

### PUBLISHED IMAGES

1. Graf, W. L., 1987. "The Goose Neck, Colorado River, from Dead Horse Point, Utah." Cover Image for the book *Geomorphic Systems of North America*, Centennial Special Volume 2, Geological Society of America. Boulder, Co.: Geological Society of America.
2. Graf, W. L., 2005. Four images: "Looking north from Congaree Bluff," "Congaree River near 601," "Congaree River with kayak," and "Canoe on the Congaree," in *Images of Congaree National Park*, compiled by Carolinas' nature Photographers Association and Friends of Congaree Swamp. Irmo, South Carolina: Totally Outdoors Publishing, Inc.
3. Graf, W. L., 2011. "Mouth of the Niobrara River and Lewis and Clark Lake, Nebraska and South Dakota." Cover Image for the book *Missouri River Planning: Recognizing and Incorporating Sediment Management*, Washington, D.C.: National Academies Press.
4. Graf, W. L., 2012. "Shasta Dam." Park sign image, East Bay Regional Park District, Antioch, CA, California Bay Delta Experience.
5. Graf, W. L., 2012. "Shasta Dam on the Sacramento River, CA," U.S. Environmental Protection Agency, Report on Sacramento, San Pedro, and Northeast Streams.
6. Graf, W. L., 2012. "Klamath River, Northern California," cover image, *Review of Science for the Secretarial Decision on the Removal of Four Dams on the Klamath River, Oregon and California*, Jacksonville, Florida: Atkins North America, Inc., 43 p.

### ORAL PRESENTATIONS

1. 1970: Pinedale IV Stade Glaciation in the Southeastern Beartooth Mountains, Montana and Wyoming. American Quaternary Association, 1st Annual Meeting, Bozeman, Montana.
2. 1974: Impact of Suburbanization on a Field of Holocene Sand Dunes. American Quaternary Association, 3rd Annual Meeting, Madison, Wisconsin.

3. 1975: The Response of Fluvial Systems to Suburbanization. Association of American Geographers, 71st Annual Meeting, Milwaukee, Wisconsin.
4. 1977: Geomorphic Impact of Changes in Riparian Vegetation in the Canyons of the Colorado Plateau. Association of American Geographers, 73rd Annual Meeting, Salt Lake City, Utah.
5. 1977: Tamarisk and Landscape Change in Capitol Reef National Park. Capitol Reef, Lake Powell, and Rainbow Bridge Field Conference, Association of American Geographers, 73rd Annual Meeting, Salt Lake City, Utah.
6. 1978: Geomorphic Change and Recreation Management in Dinosaur National Monument, Utah/Colorado. Association of American Geographers, 74th Annual Meeting, New Orleans, Louisiana.
7. 1978: Channel Instability in Montane Watersheds. Workshop in Geomorphology, U.S. Department of Agriculture, Southwest Rangeland Watershed Research Center, Tucson, Arizona.
8. 1979: The Impact of Mining on Montane Stream Channels. Association of American Geographers, 75th Annual Meeting, Philadelphia, Pennsylvania.
9. 1979: Catastrophe Theory as a Model for Change in Fluvial Systems. 10th Annual Geomorphology Symposium, Binghamton, New York.
10. 1980: The Effect of Land Use Change on Fluvial Systems of the Henry Mountains, Utah. Association of American Geographers, 76th Annual Meeting, Louisville, Kentucky.
11. 1980: Century-long Changes in the Fluvial Systems of the Henry Mountains, Utah. Museum of Northern Arizona, 33rd Annual Symposium on Southwestern Geology, Flagstaff, Arizona.
12. 1981: Channel Instability of the Gila River, Southern Arizona. Association of American Geographers, 77th Annual Meeting, Los Angeles, California.
13. 1981: Spatial Variation of Fluvial Processes in Semi-Arid Lands. 12th Annual Geomorphology Symposium, Urbana, Illinois.
14. 1981: Catastrophe Theory as a Model for Geomorphologic Change. Geology Colloquium Series, University of Arizona, Tucson, Arizona.
15. 1982: Variation of Fluvial Processes and the Mercury Pollution of Lake Powell. Association

- of American Geographers, 78th Annual Meeting, San Antonio, Texas.
16. 1982: The Geomorphology of Deserts. Symposium on Desertification, Center for Quaternary Research, University of Washington, Seattle, Washington.
  17. 1983: Fluvial Processes and Environmental Change in the Henry Mountains, Utah. Geography Colloquium Series, University of California, Los Angeles.
  18. 1983: Mercury in Stream Sediments of the Southern Colorado Plateau. Association of American Geographers, 79th Annual Meeting, Association of American Geographers, Denver, Colorado.
  19. 1983: The Geography of American Field Geomorphology. Geological Society of America, 95th Annual Meeting, Indianapolis, Indiana.
  20. 1984: River Channel Changes in the Henry Mountains, Utah. U.S. Geological Survey, Invited Lecturer Series, Flagstaff, Arizona.
  21. 1984: Spatial and Temporal Patterns of Sediment Transport and Storage in the Colorado Plateau Region. Association of American Geographers, 80th Annual Meeting, Washington, D.C.
  22. 1984: The Pattern of Sediment Dynamics in the Upper Colorado River Basin. Geological Society of America, 96th Annual Meeting, Reno Nevada.
  23. 1985: Temporal Variation of Sediment Yield in the Upper Colorado River Basin. Association of American Geographers, 81st Annual Meeting, Detroit, Michigan.
  24. 1985: Channel Processes and Sediment Yield in Arid-Region Drainage Basins. 1st International Conference on Geomorphology, Manchester, England.
  25. 1985: Sediment Yield and Heavy Metals in the Upper Colorado River Basin. Distinguished Speaker Series, U.S. Military Academy, West Point, New York.
  26. 1985: Managing Sunbelt Rivers: Science, Engineering, and the Law in an Alien Environment. Sunbelt Regional Conference, Miami, Florida.
  27. 1986: Climate, Grazing, and Sediment Yield in the Upper Colorado River Basin. Distinguished Lecturer Series, Department of Geography, University of California, Los Angeles.
  28. 1986: Sediment Processes in the Upper Colorado River Basin. Distinguished Speaker Series, U.S. Geological Survey, Denver, Colorado.

29. 1986: Rates of Sediment Yield and Storage in the Colorado Plateau. Association of American Geographers, 82nd Annual Meeting, Minneapolis, Minnesota.
30. 1986: Fluvial Erosion and Federal Public Policy in the Navajo Nation. Charles Alexander Symposium, Department of Geography, University of Illinois, Urbana, Illinois.
31. 1986: Variation in Mercury and Sediment Yield from the Upper Colorado River Basin. Frontiers in Hydroscience Seminar Series, Los Alamos National Laboratory, Los Alamos, New Mexico.
32. 1986: Cause and Effect of Twentieth-Century Erosion in the Upper Colorado River Basin. Geological Society of America, 98th Annual Meeting, San Antonio, Texas.
33. 1987: Erosional History of Lake Canyon, Southeastern Utah. Association of American Geographers, Portland, Oregon.
34. 1987: Late Holocene Sedimentation in Lake Canyon, Southeastern Utah. Geological Society of America, 99th Annual Meeting, Phoenix, Arizona.
35. 1987: Changing Climate, Sacred Cows, and the Colorado River. Symposium Series, Desert Institute, University of Arizona.
36. 1987: Climate, Cows, and the Colorado River. Visiting Speaker Series, Department of Geography, University of Wisconsin, Madison.
37. 1988: Southwestern Rivers: Definition of Flood Plains. Arizona Flood Plain Managers' Association, Annual Meeting, Lake Havasu City, Arizona.
38. 1988: Downstream Distribution of Thorium-230 in the Puerco River, New Mexico. Association of American Geographers, 84th Annual Meeting, Phoenix, Arizona.
39. 1988: Fluvial Geomorphology of Radionuclides in the Puerco River, New Mexico. Geological Society of America, 100th Annual Meeting, Denver, Colorado.
40. 1989: Spatial Dynamics of Radionuclides in Stream Systems. Visiting Speaker Series, Los Alamos National Laboratory, Los Alamos, New Mexico.
41. 1989: Riparian Ecosystems and Channel Change, Rio Grande, New Mexico. Association of American Geographers, Baltimore, Maryland.
42. 1989: Heavy Metals in Southwestern Rivers. Visiting Scholars Program, Department of Earth Sciences, New Mexico State University, Las Cruces, New Mexico.

43. 1989: Radionuclide Transport in the Puerco River, New Mexico. 2nd International Conference on Geomorphology, Frankfurt, Federal Republic of Germany.
44. 1989: Twentieth-Century Flood-Plain Development on the Rio Grande, New Mexico. Flood-Plain Symposium, University of Gottingen, Gottingen, Federal Republic of Germany.
45. 1990: Plutonium Storage and Flood-Plain Evolution, Northern Rio Grande, New Mexico. Association of American Geographers, 86th Annual Meeting, Toronto, Ontario, Canada.
46. 1990: Fluvial Geomorphology of Plutonium Transport and Storage, Northern Rio Grande, New Mexico. Geological Society of America, 101st Annual Meeting, Dallas, Texas.
47. 1991: Geomorphology of Plutonium in the Northern Rio Grande. Research Seminar Series, U.S. Department of Agriculture, Agricultural Research Service, Tucson, Arizona.
48. 1991: A Framework for Analysis of Fluvial Responses to Quaternary Climatic Change in the Desert Southwest. Geological Society of America, 102nd Annual Meeting, San Diego, California.
49. 1992: Science and Public Policy for Western American Rivers. Keynote Address, 1992 Annual Meeting of the Institute of British Geographers, Swansea, Wales, United Kingdom.
50. 1992: Geographic Distribution of Heavy Metal Ratios and Concentrations in Queen Creek, Arizona. Association of American Geographers, 88th Annual Meeting, San Diego, California.
51. 1992: Science, Policy, and Management for American Rivers. Maconokie Lecture, Department of Geography, University College London, London, England.
52. 1992: Heavy Metals and Radionuclides in the Rio Grande, New Mexico. Physical Geography Colloquium, University College London, London, England.
53. 1992: Landscapes, Commodities, and Ecosystems: Policy and Science for American Rivers. National Research Council, National Academy of Science, 10th Anniversary Symposium of the Water Science and Technology Board, Washington, D.C.
54. 1993: Geomorphology of Plutonium in the Rio Grande System. Geological Society of America, 104th Annual Meeting, Boston, Massachusetts.



55. 1993: Policy and Science for American Rivers. Atwood Lecture, Clark University.
56. 1993: How Representative is the American Wild and Scenic Rivers System? Opportunities for River Protection and Restoration, American Rivers Conference, Washington, D.C. (Paper presented by P. J. Beyer, April 5, 1993).
57. 1994: Policy and Science for American Rivers. Brown Distinguished Lecture, McMaster University.
58. 1994: First Approximation to a Plutonium Budget, Northern Rio Grande, New Mexico. Association of American Geographers, 90th Annual Meeting, San Francisco, California.
59. 1994: Geoscience and Policy for Rivers. Thomas B. Nolan Distinguished Lecture 1, U.S. Geological Survey, Denver, Colorado.
60. 1994: Geoscience and Policy for Rivers. Thomas B. Nolan Distinguished Lecture 2, U.S. Geological Survey, Reston, Virginia.
61. 1996: Dynamics of Plutonium in the Sediment System of Los Alamos Canyon, New Mexico. Association of American Geographers, 92nd Annual Meeting, Charlotte, North Carolina.
62. 1996: Geomorphology of Plutonium in the Los Alamos Canyon System, Northern New Mexico. Geological Society of America 107th Annual Meeting, Denver, Colorado.
63. 1996: Geomorphology and Policy for Restoration of Impounded American Rivers. Invited Paper for 27<sup>th</sup> Annual Geomorphology Symposium, Champaign, Illinois.
64. 1997: The Implications of a Changing Physical Landscape for Western Water Policy. President's Western Water Policy Review Advisory Commission, Tempe, Arizona.
65. 1997: Science and Policy for Restoration of American Rivers. K. J. Gregory Lecture, University of Southampton, United Kingdom.
66. 1997: Restoring America's Rivers. Keynote Address, Great Plains -- Rocky Mountains Geographers (Association of American Geographers) Annual Meeting, Bozeman, Montana.
67. 1997: The Context of Human Impacts on Western Rivers: The Historical Geography of Dams. Geological Society of America 108th Annual Meeting, Salt Lake City, Utah.
68. 1998: Restoring America's Rivers. Edward Taaffe Invited Lecture, Ohio State University, Columbus, Ohio.

69. 1998: The Impact of the Western Landscape on American Fluvial Geomorphology. Association of American Geographers 94th Annual Meeting, Boston, Massachusetts.
70. 1998: Restoring America's Rivers. Harold Brown Invited Lecture, University of Minnesota, Minneapolis, Minnesota.
71. 1998: GIS Analysis of Channel Changes in the Upper Rural Reach of the Salt River, Phoenix, Arizona. Arizona Geographic Information Conference, Phoenix, Arizona (J. M. Moreau, G. E. Morrissey, and W. L. Graf)
72. 1998: The Impact of the Western Landscape on American River Science. Association of American Geographers, West Lakes Division Meeting, Keynote Address, Madison, Wisconsin.
73. 1998: The Impact of the Western Landscape on American River Science. Association of American Geographers, East Lakes Division Meeting, Keynote Address, Madison, Wisconsin.
74. 1998: The Impact of the Western Landscape on American River Science. Association of American Geographers, East Lakes Division Meeting, Keynote Address, Columbus, Ohio.
75. 1998: The Impact of the Western Landscape on American River Science. Association of American Geographers, Southeast Division Meeting, Keynote Address, Memphis, Tennessee.
76. 1999: The Impact of the Western Landscape on American River Science. Historical and Cultural Geography, Visiting Speaker Series, University of Nevada, Reno.
77. 1999: The Locational Probability of the Salt River, Arizona. Association of American Geographers 95<sup>th</sup> Annual Meeting, Honolulu, Hawaii.
78. 1999: Restoration and River Mechanics. Imperial Irrigation and Drainage District, Public Speaker Series for the New River Restoration, El Centro, California.
79. 1999: Dam Nation: A Geographic Census of American Dams and Their Large-Scale Hydrologic Impacts. University of Colorado, Geography Colloquium Series.
80. 1999: Dam Nation: A Geographic Census of American Dams and Their Large-Scale Hydrologic Impacts. University of California, Santa Barbara, Geography Colloquium Series.
81. 1999: Dam Nation: A Geographic Census of American Dams and Their Large-Scale

- Hydrologic Impacts. Keynote Address, All Points of the Compass Day, University of California, Fullerton.
82. 1999: Damming America's Watersheds. Keynote Address, 2<sup>nd</sup> International Conference on Multiple Objective Decision Support Systems for Land, Water, and Environment, Brisbane, Australia.
  83. 1999: Dams and their Impacts on American Rivers. Visiting Speakers Symposium, Department of Geography, University of South Carolina.
  84. 1999: The Fluvial Context of Recovery of the Endangered Southwestern Willow Flycatcher. Invited Paper, 30<sup>th</sup> Annual Geomorphology Symposium, Binghamton, New York.
  85. 2000: Physical Integrity for Rivers. U.S. Fish and Wildlife Service, Ecological Services, Region 2, Albuquerque, New Mexico.
  86. 2000: *Damage Control: Restoring the Physical Integrity of America's Rivers*. Past President's Address, 96<sup>th</sup> Annual Meeting of the Association of American Geographers, Pittsburgh, Pennsylvania.
  87. 2000: Physical Integrity of Managed Rivers. Review of Flood Protection Needs and Alternatives on the Lower Tempisque River Basin, Costa Rica, Filadelfia, Costa Rica.
  88. 2000: Trends and Opportunities in Geographic Research. National Geographic Society, Committee on Research and Exploration, Washington, D.C.
  89. 2000: Physical Integrity of Rivers. Tempisque River Basin Conference, Office of Tropical Studies and Heinz Center for Economics, Society, and Environment, Filadelfia, Costa Rica.
  90. 2001: Process reversal for rivers: Fluvial restoration by removal of dams. 97<sup>th</sup> Annual Meeting of the Association of American Geographers, New York, New York.
  91. 2001: *Damage Control: Restoration of American Rivers*. Departmental 75<sup>th</sup> Anniversary Distinguished Speaker, Syracuse University, Syracuse, New York.
  92. 2001: Dam Decisions: Assessing Outcomes of Dam Removal. Coordinators Meeting, Electric Power Research Institute, Washington, D.C.
  93. 2002: Security of Dams: Science and Technology. Symposium on the Security of America's Water Supply, National Research Council, Water Science and Technology Board, Washington, D.C.

94. 2002: Facilitator and Speaker, Panel on Rivers and Streams, Symposium on Science and Conservation: 2002 Farm Bill Opportunities and Challenges. National Research Council, Board on Agriculture and Natural Resources, Washington D.C.
95. 2002: Dams and the Geomorphic Complexity of Rivers. 98<sup>th</sup> Annual Meeting of the Association of American Geographers, Los Angeles, California.
96. 2002: Uncertainty at the Source: Science for River Restoration. Invited Paper, American Geophysical Union, Annual Fall Meeting, San Francisco, California.
97. 2002: Moderator and Speaker, Science and Technology for the Vadose Zone. Fall Meeting, National Research Council, Board on Earth Science and Resources, Santa Fe, New Mexico.
98. 2002: Moderator and Speaker, How Many Buckets at the Well?: Waterways and FERC Issues. South Carolina Environmental Symposium, Myrtle Beach, South Carolina.
99. 2002: Chair, Dam Removal Research Workshop. Heinz Center for Science, Economics, and the Environment, Airlie Conference Center, Virginia
100. 2003: Panel Member and Presenter, Geographic Perspectives on the International Year of Fresh Water, with presentation, Dams, Rivers, and Restoration. 99<sup>th</sup> Annual Meeting of the Association of American Geographers, New Orleans, Louisiana.
101. 2003: Research Opportunities in Geography at the U.S. Geological Survey (Briefing on the final report of the National Research Council Committee to Advise the USGS on Geographic Research):
  - U.S. House of Representatives, Resources Committee, Washington, D.C.
  - U.S. Senate, Resources Subcommittee, Washington, D.C.
  - White House, Office of Science and Technology Policy, Washington, D.C.
  - White House, Office of Management and Budget, Washington, D.C.
  - U.S. Geological Survey Leadership Team, Reston, Virginia.
  - All Members Meeting, U.S. Geological Survey National Mapping Division, Reston, Virginia
  - Clients Group of the U.S. Geological Survey, Washington, D.C.
102. 2003: Geomorphology and American Dams, Geosciences Seminar Series, Oregon State University, Corvallis, Oregon.
103. 2003: The Silvery Minnow and Restoration of the Rio Grande: River and Watershed, Governor's Symposium on the Silvery Minnow and Restoration of the Rio Grande, Santa Fe, New Mexico.

104. 2004: Dam Removal: Science, Decision Making, Status and Prospects, Dam Removal and Fish Passage, Engineering Short Course, Sponsored by University of Wisconsin, Madison, Santa Rosa, California.
105. 2004: Speaker and Panelist, Managing Water in the 21<sup>st</sup> Century: Towards a Comprehensive Water Vision, and Sustainable Water Management Institutions (Graf contribution: Role of Threatened and Endangered Species in Water Management) , Water for a Sustainable and Secure Future (Graf contribution: Uncertainty in Science and Decision-Making for Water), 4<sup>th</sup> Annual Conference of the National Council on Science for the Environment, Washington, D.C.
106. 2004: Threatened and Endangered Species of the Platte River (Briefing on the final report of the National Research Council Committee on Threatened and Endangered Species of the Platte River Basin)
  - U.S. House of Representatives, Resources Committee, Washington, D.C.
  - U.S. Senate, Resources Subcommittee, Washington, D.C.
  - Department of Interior, Washington, D.C.
  - Platte River Coordinating Council, Denver, Colo.
107. 2004: Where the Wild Things Are: Dams, River Restoration, and Wildlife Preservation, Invited Keynote Plenary Speaker, International Geographical Congress United Kingdom 2004, Glasgow, Scotland
108. 2004: Science for Water Development and Wildlife Preservation, Invited Presentation, National Academy of Science, Sackler Symposium on The Role of Science in Solving the World's Water Problems, Irvine, California.
109. 2004: River Integrity and Dams: A National Perspective, Invited Lecture, Succeeding with a Dam Removal Project, Short Course, University of Wisconsin—Madison, College of Engineering, Raleigh, North Carolina.
110. 2004: Beauty and the Beast: External Review and Restoration Science, First National Ecosystem Restoration Conference, Invited Keynote Address, Orlando, Florida.
111. 2005: (with Tara M. Plewa) Hydrology of the Congaree River near Congaree National Park, South Carolina, Invited Public Presentation, Congaree National Park, South Carolina.
112. 2005: Cooperation for Geographic Science Between the U.S. Geological Survey and Academia, Presentation for Panel on Geography at the U.S. Geological Survey, 101<sup>st</sup> Meeting of the Association of American Geographers, Denver, Colorado.

113. 2005: *Beauty and the Beast: External Review and Restoration Science*, Second Annual Conference on Water Law, Policy, and Science, Water Management and Policy in the Great Plains, Invited Address, Lincoln, Nebraska.
114. 2005: (with Kuby, M. J., Fagan, W. F., and ReVelle), C. S., *Multiobjective Optimization for Dam Removal*, International Symposium on Locational Decisions X, Sevilla, Spain.
115. 2005: *A National View of Science and Policy for Water Resources Under Stress*, Pardee Symposium on Water Resources Under Stress, 117<sup>th</sup> Annual Meeting of the Geological Society of America, Salt Lake City, Utah.
116. 2005: *Damage Control: Dams and the Physical Integrity of America's Rivers*, Invited Presentation, Dam Removal Short Course, University of Wisconsin, School of Engineering, Madison, Wisconsin.
117. 2006: *Downstream Hydrological and Geomorphological Effects of Large Dams on American Rivers*, Invited, Binghamton International Geomorphology Symposium, Columbia, South Carolina.
118. 2007: *Flood Hazards in the Central Valley of California*, Invited Panel Discussion, 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, San Francisco, California.
119. 2007: *Home Ground: A Literary and Scientific Collaboration*, Plenary Session with Gwartney, E. Cox, and J DeBlieu, 7<sup>th</sup> Biennial Conference of the Association for the Study of Literature and Environment, Spartanburg, South Carolina, Invited.
120. 2007: *Home Ground: Language for the American Landscape*, with B. Lopez, D. Gwartney, K. Blake, K. Parker, and M. Pasqualetti, 102<sup>nd</sup> Annual Meeting of the Association of American Geographers, San Francisco, California, invited.
121. 2007: *Physical Integrity of American Rivers: With Emphasis on Southeastern Rivers*; American Rivers Board of Directors Meeting, Beaufort, South Carolina, Invited.
122. 2007: *Science and Decision-Making for Restoration of Large Regulated American Rivers*, Special Technical Session, Geological Society of America Annual Meeting, Denver, Colorado, invited.
123. 2008: *Ecologically Sustainable Water Management: Context for ESWM in the Congaree Basin*, Technical Meeting for River Flows in the Relicensing of Saluda Dam, Columbia, South Carolina, invited.
124. 2008: *Science and Decision-Making for Restoration of American Rivers*, National Park Service Congaree Science Symposium, Columbia, South Carolina, invited keynote

- address.
125. 2008: Environmental Change and South Carolina Rivers, South Carolina Rivers Forum, Center for Humans and Nature in South Carolina, invited keynote address.
  126. 2008: Science and Decision-Making for Restoration of Large American Rivers, 103<sup>rd</sup> Annual Meeting of the Association of American Geographers, Boston, Massachusetts, Invited Paper.
  127. 2008: Ecologically Sustainable Water Management: Context for ESWM in the Congaree Basin, Technical Meeting for River Flows in the Relicensing of Saluda Dam, Columbia, South Carolina, invited.
  128. 2008: Science and Decision-Making for Restoration of American Rivers, National Park Service Congaree Science Symposium, Columbia, South Carolina, invited Keynote Address.
  129. 2008: Environmental Change and South Carolina, South Carolina Rivers Forum, Center for Humans and Nature in South Carolina, invited Keynote Address.
  130. 2008: Science and Policy for River Restoration by Dam Removal, Fall 2008 Annual Meeting of the American Geophysical Union, San Francisco, California, Invited Paper.
  131. 2008: Where the Wild Things Are: Science and Policy for Restoration of American Rivers, College of Natural Resources, Colorado State University, Fort Collins, Invited Lecture.
  132. 2008: Downstream Effects of Dams on Large American Rivers, Department of Geological Sciences, Colorado State University, Fort Collins, Invited Lecture.
  133. 2008: Everglades Restoration Progress, 2008 (Briefing on the final report of the National Research Council Committee on Independent Scientific Review of Everglades Restoration Progress)
    - U.S. House of Representatives, Natural Resources Subcommittee, Washington, D.C.
    - U.S. Senate, Transportation and Infrastructure Subcommittee, Washington, D.C.
    - Department of Interior and U.S. Army Corps of Engineers, Washington, D.C.
    - South Florida Water Management District, Miami, Florida
  134. 2009: The Geomorphology Specialty Group After 30 Years: Looking Back, Looking Forward, Panelist, 104th Annual Meeting of the Association of American Geographers,

- Las Vegas, Nevada, Invited.
135. 2009: Where the Wild Things Are: American Rivers, Dams, and Wildlife, Nobel Conference 45, H<sub>2</sub>O: Uncertain Resource, Gustavus Adolphus College, Invited Address.
  136. 2009: Science, Policy, and Politics for Everglades Restoration, University of Miami, Miami, Florida, invited seminar presentation.
  137. 2009: Policy and Science for Everglades Restoration, National Center for Ecosystem Analysis and Synthesis, Santa Barbara, California, invited public presentation.
  138. 2010: Water in South Carolina. National Association of Groundwater Managers, annual meeting, Charleston, South Carolina, keynote address.
  139. 2010: Downstream Effects of Large American Dams, River Restoration – Northwest, annual meeting, Stevenson, Washington, keynote address.
  140. 2010: Restoring the Florida Everglades. Royal Geographical Society, Institute of British Geographers, and International Geomorphology Society, 50<sup>th</sup> Anniversary Meeting, London, keynote address.
  141. 2010: Water Resources and Rivers of South Carolina, The Science Café, Columbia, South Carolina
  142. 2011: Science, Policy, and Politics in Everglades Restoration. Department of Geography, University of North Carolina, Chapel Hill, Eyre Lecture.
  143. 2011: Organizer (with Mark Lange) and Moderator, Dam Removal. Day-long Special Symposium, National Research Council, National Academy of Science, Board on Earth Science and Resources, Committee on Geographical Sciences
  144. 2011: University Presidential Dream Course on Water Resources, University of Oklahoma, three presentations: Dam Technology, Paper Water: Water Law and Policy, and public lecture on rivers, dams, and wildlife
  145. 2011: The Future of Water Resources of South Carolina. Greater Greenville Forum, invited presentation, Greenville, South Carolina, March 22, 2011.
  146. 2012: Governance of Science for Ecosystem Restoration. COMPASS Inc., invited through COMPASS Inc. for three presentations related to the Executive Office of the President:

Council on Environmental Quality



Office of Management and Budget  
And  
Congressional Research Service  
House of Representatives, Water and Environment Subcommittee Staff

147. 2013. Physical Science in Ecosystem Services and Federal Decision Making. COMPASS Inc, invited through COMPASS Inc. for presentations related to the Executive Office of the President:

Office of Science and Technology  
Council on Environmental Quality  
Office of Management and Budget  
And  
Congressional Research Service  
U.S. Environmental Protection Agency

148. 2013. Dams and Hydropower: Rivers and Habitat. Invited Plenary Address, Annual Meeting of the Society for Freshwater Science, Jacksonville, Florida, May 24, 2013

## **TEACHING**

### **COURSES TAUGHT**

#### ***At the University of Iowa:***

Weather and Climate  
Natural Hazards  
Natural Environment and Man  
Natural Environmental Issues  
Environmental Impact Studies  
Alpine Landforms  
Coastal Landforms  
Arid Landforms  
Wilderness Issues

Geographical Analysis  
Research Seminars:  
Urbanization and Environment  
Pleistocene Environments  
Natural Resources

#### ***At Arizona State University:***

Advanced Geographic Research Methods  
Landform Processes  
Introduction to Physical Geography  
Geographic Information Analysis  
Aerial Photographic Interpretation  
Wilderness Issues

Public Land Policy  
Geographic Information Analysis  
Contemporary Geographic Thought  
Legal Aspects of Geology  
Fluvial Processes  
River Management: Law and Science

(Jointly with the College of Law)

Research Seminars:

Geomorphic Processes

Impact of High Dams

Fluvial Processes

Heavy Metals in Rivers

Science and Policy for Impounded Rivers

Physical Geography

*At the University of South Carolina:*

Fluvial Geomorphology

Geography of Public Land and Water Policy

Contemporary Approaches in Geography

Introduction to Physical Geography

Research Seminar: Congaree National Park

Undergraduate Capstone Seminar:

The New South

The 2004 Primary Election

Research Methods in Geography

Geographic Aspects of Sept 11, 2001

Visual Tours of Congaree National Park

Career Management for Geographers

**GRADUATE ADVISING--THESES AND DISSERTATIONS SUPERVISED**

**(Student, Year Completed, Title, First Post-Degree Appointment)**

1. Olyphant, Greg A. 1979. PhD. Geomorphology and Micro-climatology of Cirque Basins, Blanca Massif, Colorado. Assistant Professor, University of Maryland, College Park (Co-Advisor with Neil Salisbury).
2. Smith, Diane E. 1981. MA. Riparian Vegetation and Sedimentation in a Braided River. PhD Student, University of Wisconsin, Madison.
3. Earl, Richard A. 1982. PhD. Paleohydrology and Paleoclimatology of the Skunk Creek Basin During Holocene Time. Assistant Professor, New Mexico State University.
4. Marcus, W. Andrew. 1983. MA. Copper Dispersion in Ephemeral Stream Sediments, Queen Creek, Arizona. PhD Student, University of Colorado, Boulder.
5. Marcus, Lisa N. 1983. MA. The Spatial and Temporal Evolution of Tonto National Forest, Arizona. Resource Analyst and Paralegal Associate, Davis, Graham, and Stubbs, Denver.
6. Alberhasky, JoEllen M. 1983. MA. Stormflow Analysis of Chaparral Conversion of a Small Arizona Watershed. Hydrologic Technician, U.S. Forest Service, Forestry Sciences Laboratory, Tempe, Arizona.

7. Kidder, Steven D. 1985. MA. Cirque Shape Variation in the Sierra Nevada, California. Lecturer, U.S. Military Academy, West Point.
8. Verville, Herbert J. 1985. MA. Channel Change, Process, and Cross Sectional Flow Distributions in an Arid-Region Braided River: Agua Fria River, Arizona. Resource Analyst, Applied Environmental Consultants, Inc., Phoenix.
9. Rhoads, Bruce L. 1986. PhD. Process and Response in Desert Mountain Fluvial Systems. Assistant Professor, University of Illinois.
10. Lacey, Michael J. 1987. MA. Role of Vegetation in Erosion and Sediment Yield, Central Arizona. Hydrologic Technician, Arizona Department of Water Resources, Phoenix.
11. Lecce, Scott A. 1988. MA. Influence of Lithology on Alluvial Fan Morphometry, White and Inyo Mountains, California and Nevada. PhD Student, University of Wisconsin, Madison.
12. Haschenburger, Judith K. 1989. MA. Variation of Copper in Stream Sediments, Pinal Creek, Arizona. Research Project Manager, Department of Chemistry, Arizona State University.
13. Lee, Stephen E. 1989. MA. The Effect of Glen Canyon Dam on the Stability of Rapids in the Colorado River, Grand Canyon, Arizona. Hydrologist, K-V Associates, Falmouth, Massachusetts.
14. Lee, Jeffrey A. 1990. PhD. The Effect of Desert Shrubs on Shear Stress from the Wind: An Exploratory Study. Assistant Professor, Texas Tech University.
15. Lehman, Ted W. 1990. MA. Copper and Zinc in Sediments of Whitlow Ranch Reservoir, Queen Creek, Arizona. Hydrologist, Maricopa County Flood Control District, Phoenix, Arizona.
16. Kammerer, Martin T. 1991. MA. In-Channel Dispersion of Copper, Zinc, and Lead in Sediments of a Dryland Stream, Queen Creek, Arizona. PhD student, University of Heidleburg, Germany.
17. Hetrick, John. S. 1992. MA. Copper Variations in Suspended and Bed Sediments, Gila River, Arizona. PhD student, Arizona State University.
18. Hinchman, Virginia. H. 1993. MA. Riparian Vegetation and Alluvial Bar Deposits, Little Colorado River, Arizona. PhD student, Arizona State University.

19. Chin, Anne. 1994. PhD. Toward a Theory for Step-Pools in Mountain Streams. Assistant Professor, University of Oklahoma.
20. Clark, Sandra L. 1995. PhD. Distribution of Selenium in the Upper Colorado River. Assistant Professor, Bridgewater State College (Massachusetts).
21. O'Hirok, Linda S. 1995. PhD. Geomorphology of Channel Junctions in Dryland Streams. Assistant Professor, California State University at Los Angeles.
22. Wasklewicz, T. A. 1996. PhD. A Hydrogeomorphic Assessment of Middle-Elevation Riparian Vegetation, Sub Mogollon Rim, Central Arizona. Assistant Professor, Texas A&M University.
23. Freeland, Cynia. 1997. MA. The Downstream Impacts of the Gillespie Dam Breach on the Lower Gila River. Geomorphologist, ASL Environmental Consulting, Inc.
24. Beyer, Patricia. J. 1997. PhD. Integration and Fragmentation in a Fluvial Geomorphi System, Verde River, Arizona. Assisstant Professor, State College of New York at Oneanta.
25. Birkeland, K. W. 1997. PhD. Spatial and Temporal Variations in Snow Stabily and Snowpack Conditions, Bridger Mountains, Montana. Avalanche Forecaster, Avalanche Forecast Center, U.S. Forest Service, Bozeman, Montana.
26. Rice, James W., Jr. 1997. PhD. Aqueous Sedimentary Basins on Mars. Mars Lander Team, Ames National Laboratory, San Francisco, California.
27. Birkeland, V. Hinchman. 1999. PhD. Riparian Vegetation, Flood Power, and Channel Change in Canyons of the Escalante River Basin, Utah. Assistant Professor, Indiana University Western Field School, Bozeman, Montana.
28. S. J. Kramer, 1999. MA. Functional Groups and Plant-Environment Relationships: Restoration Guidelines for the Provo River, Utah. Hydrologist and Ecologist, Utah Reclamation, Mitigation, and Conservation Commission, Provo, Utah.
29. Martin C. Roberge. 1999. PhD. Physical Interactions Between Phoenix and The Salt River, Arizona. Assistant Professor, Towson State University, Baltimore, Maryland.
30. Molly M. Pohl. 1999. PhD. The Dams of the Elwha River, Washington: Geomorphic Impacts and Policy Implications. Assistant Professor, San Diego State University, San Diego, California.
31. Mark A. Fonstad. 2000. PhD. Spatio-Temporal Variation in the Power of Mountain

- Streams, Sangre de Christo Mountains, New Mexico and Colorado. Post-Doctoral Researcher, Mountain Research Center, Montana State University, Bozeman, Montana.
32. Tara M. Koman. 2003. MA. The Hydrologic Effects of Dams on the Saluda River, South Carolina. Hydrologist, U.S. Forest Service, Columbia, South Carolina.
  33. Matthew Constantino. 2003. MA. Gambling on the Border: Nevada's New Boom Towns. Public School Teacher.
  34. Laura Stroup. 2004. MA. Getting the Structure Right: Adaptive Management for the Restoration of the Everglades. U.S. Forest Service, Columbia, South Carolina.
  35. Joe Dickerson. 2005. MA. Geomorphology and Sediment History of Garner's Mill, South Carolina. Central Intelligence Agency, Langley, Virginia.
  36. Kimberly M. Meitzen. 2006. MA. Development, Disturbance, and maintenance: Process-Pattern Relationships in Riparian Environments, Congaree River, Congaree National Park, South Carolina. PhD program, University of South Carolina, Columbia.
  37. Laura Stroup. 2008. PhD. Climate Change and River Basin Management. Assistant Professor, Texas State University, San Marcos, Texas.
  38. Tara M. Plewa. 2009. PhD. An Environmental History of the Santa Fe River, New Mexico. Director of Geospatial Information, South Carolina National Guard, Columbia, South Carolina
  39. Kimberly M. Meitzen. 2011. PhD (jointly advised with John A. Kupfer). Flood Processes, Forest Dynamics, and Disturbance in the Congaree River Floodplain, South Carolina. Post-Doctoral Researcher, Duke University and The Nature Conservancy

### **SERVICE**

#### Association of American Geographers

President

Vice President

Council, Member

Council Committee on Integrative Physical Geography, Chair

Chair, National Councilors

Geomorphology Specialty Group, Secretary, Chair

Specialty Group Awards Committee, Member, Chair

Committee on Employment and Career Opportunities

AAG *Annals* Planning Committee

Scientific Freedom and Responsibility Committee

Nystrom Award Committee (Twice)  
National Awards Committee  
National Geographic Society Coordinating Committee  
National Nominating Committee  
Geographer on Film  
Expert, Arid Lands, National News Source Committee  
Organizer, Special Paper Sessions (7 Times) for Annual Meeting

Geological Society of America, Quaternary Geology and Geomorphology Division  
President, 1st Vice President, and 2nd Vice President in successive years  
Division Panel Member  
National Nominating Committee, Member  
Committee for the Centennial Volume, Geomorphology, Member, Chair  
Gladys Cole Award Panel, Member

American Society of Civil Engineers  
Task Committee on Morphology of Streams and Sediment Yield

### **EDITORIAL SERVICE--BOARDS AND EDITORSHIPS**

Invited Editor, *Geomorphic Systems of North America*, Centennial Volume on  
Geomorphology published by the Geological Society of America  
Editor, Discussion Paper Series, Department of Geography, University of Iowa  
Associate Editor, *Annals of the Association of American Geographers*  
Associate Editor, *Geological Society of America Bulletin*  
Associate Editor, *Professional Geographer*  
Associate Editor, *Environmental and Engineering Geosciences*  
Editor for Geomorphology, *A Geographic Bibliography for American Universities*  
Consulting Editor, *Atlas of North America*, National Geographic Society  
Consulting Editor, *Historical Atlas of the United States*, National Geographic Society  
Contributing Editor, *Home Ground: Language for an American Landscape*, Barry Lopez (ed.)  
and Debra Gwartney (manag. ed.), Trinity University Press  
Editorial Reader, *Glossary of Geology*, American Geological Institute

### **EDITORIAL SERVICE--EDITORIAL BOARD MEMBERSHIP**

*Annals of the Association of American Geographers*  
*Applied Geography*  
*Arizona-Sonoran Desert Museum Series on Desert Research*  
*Catena*  
*Geological Society of America Bulletin*

*Geomorphology*  
*Journal of Arid Environments*  
*Geography Compass*

**REVIEWER SERVICE-MANUSCRIPTS**

*American Journal of Science*  
*American Naturalist*  
*Annals of the Association of American Geographers*  
*Arctic and Alpine Research*  
*Catena*  
*Earth Surface Processes and Landforms*  
*Environmental Management*  
*Geographical Analysis*  
*Geological Society of America Bulletin*  
*Geology*  
*Geomorphology*  
*Journal of Glaciology*  
*Journal of Geology*  
*Journal of Range Management*  
*National Geographic Research*  
*Professional Geographer*  
*Quaternary Research*  
*Science*  
*U.S. Geological Survey Professional Papers*  
*U.S. Geological Survey Bulletins*  
*Water Resources Research*  
*Water Resources Bulletin*  
*Transactions in GIS*  
*Freshwater Ecology*

**REVIEWER SERVICE--PROPOSALS**

American Chemical Society  
Arizona Water Resources Research  
National Science Foundation  
National Geographic Society  
Research Council of Canada  
U.S. Department of State

U.S. Geological Survey  
Ohio Department of Natural Resources  
U.S. Department of Energy  
U.S. Department of Agriculture  
U.S.-Israel Binational Science Foundation  
U.S. Army Corps of Engineers

**REVIEWER SERVICE -- Departments**

Department of Geography, Dartmouth College  
Department of Geography, Georgia State University  
Department of Geography, Utah State University  
Department of Environmental Sciences, City University of New York

**REVIEWER SERVICE--FACULTY PROMOTIONS**

Clark University	University of Iowa
Hebrew University (Israel)	University of Kansas
Georgetown University	University of Leeds (United Kingdom)
Miami University (Ohio)	University of Maryland, Baltimore County
National University of Singapore	University of Missouri, Columbia
Purdue University	University of Miami (Florida)
Rutgers University	University of North Carolina, Chapel Hill
State University of New York at Buffalo	University of North Carolina, Charlotte
Syracuse University	University of North Texas
Texas State University San Marcos	University of Texas
University of Arizona	University of Oregon
University of British Columbia	University of South Carolina
University of California, Los Angeles	University of South Florida
University of California, Santa Barbara	University of Southampton (United Kingdom)
University of Cape Coast (Ghana)	University of Southern California
University of Connecticut	University of Wyoming
University of Delaware	University of Western Australia
University of Denver	Utah State University
University of Florida	
University of Georgia	
University of Illinois	

**PROFESSIONAL SERVICE--UNIVERSITY**

University

- University Research Council
- University Academic Freedom and Tenure Committee
- Provost's Promotion and Tenure Review Committee
- University Review Committee for the Center for Environmental Studies
- Graduate College Focus Committee on the Role and Nature of the Doctoral Dissertation
- Graduate College Panel on Research Proposal Generation
- Heavy Metals in Queen Creek, Segment on KAET University Research Television Program
- University Environmental Research Initiative (Co-chair; Vice Presidential appointment)
- Research and Creative Support, Review Panel
- Provost's Leadership Committee



Provost's Special Issue Review Committee  
University Panel for Advanced Computing  
Advisory Board for McCausland Brain Imaging Center  
Task Force for Advanced Computing  
Advisory Board for the Center for Digital Humanities

College of Liberal Arts and Sciences and College of Liberal Arts  
Faculty Advisory Committee for the Center for Southwest Studies  
Faculty Performance Review Evaluation Committee  
Sciences Strategic Planning Committee  
Faculty Advisory Committee for the Center for Private and Public Sector Ethics  
Computer Advisory Committee  
Research and Performance Scholarship Awards

Department of Geography

Personnel, Graduate, MA Program, PhD Program, Undergraduate, Chair Search (three),  
and Faculty Search (7), Executive, and several review Committees, Departmental  
Ombudsman