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Two Decades of Water Law and Policy Reform:
A Retrospective and Agenda for the Future
(Summer Conference, June 13-15)

2001

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AGENDA: Two Decades of Water Law and Policy Reform: A Retrospective and Agenda for the Future

University of Colorado Boulder. Natural Resources Law Center

Hydrosphere Resource Consultants

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University of Colorado Boulder. Natural Resources Law Center; Hydrosphere Resource Consultants; Modrall, Sperling, Roehl, Harris & Sisk, P.A.; Patrick & Stowell, P.C.; Perkins Coie LLP; and The William and Flora Hewlett Foundation

**Two Decades of Water Law and Policy Reform:
A Retrospective and Agenda for the Future**

June 13-15, 2001

DAY 1 - WEDNESDAY, JUNE 13, 2001

7:30 a.m. Begin Registration

8:45 a.m. Welcome

9:00 a.m. Opening Address:

Two Decades of Reform Proposals: An Overview
Larry MacDonnell, Lawrence MacDonnell, P.C.

10:00 a.m. SESSION 1:

Using Water More Efficiently
Barton H. "Buzz" Thompson, Jr., Robert E. Paradise Professor of Natural Resources Law,
Stanford Law School
Panelists: Bonnie G. Colby, David L. Harrison, Gordon McCurry
Moderator: Gary Bryner

11:30 a.m. Lunch

12:15 p.m. Luncheon Address:

The Road to Water Policy Reform: Where We've Been, and Can We Avoid Going There Again?
John D. Leshy, former Interior Department Solicitor

1:30 p.m. SESSION 2:

Getting Water for Changing Federal Water Policy Objectives
Dick Daniel, Senior Project Manager, CH2MHill
Panelists: Bill Paddock, David Robbins, Denise D. Fort
Moderator: Gary Bryner

3:00 p.m. Break

3:30 p.m. SESSION 3:

Acquiring Water for the Tribes
Susan Williams, Willams Janov & Cooney
Panelists: Tracy Labin, John E. Thorson, Jeanne S. Whiteing
Moderator: Sarah Krakoff

6:30 p.m. Cookout on Flagstaff Mountain

Readings from *Riverwalking: Reflections on Moving Water*
Kathleen Dean Moore, Professor, Department of Philosophy, Oregon State University

DAY 2 - THURSDAY, JUNE 14, 2001

8:00 a.m. Coffee

8:30 a.m. SESSION 4:

Water for the Environment: A Californian's Retrospective

Thomas J Graff, California Regional Director, Environmental Defense

Panelists: Brian D. Richter, Susan M. Williams, John D. Leshy

Moderator: Kathryn Mutz

10:00 a.m. Break

10:30 a.m. Session 5:

Strategies to Facilitate Changes in Water Use

Bonnie G. Colby, Department of Agricultural and Resource Economics, University of Arizona

Panelists: Buzz Thompson, David Getches, Hal Simpson

Moderator: Daniel F. Luecke

12:00 p.m. Lunch (on your own)

1:30 p.m. SESSION 6:

Clarifying State Water Rights And Adjudications

John E. Thorson, Attorney-at-Law & Water Policy Consultant, formerly Special Master for the Arizona General Stream Adjudication

Panelists: Jim Corbridge, Justice Greg Hobbs, Michael A. Gheleta

Moderator: Peter Nichols

3:00 p.m. Break

3:30 p.m. SESSION 7:

Toward Ecologically Sustainable Water Management: The Roles of Science and Technology

Brian D. Richter, Director, Freshwater Initiative, The Nature Conservancy

Panelists: Lee T. Rozaklis, Christine Turner, Ken Strzepek

Moderator: Jim Corbridge

5:00 p.m. Reception hosted by Hydrosphere Resource Consultants

DAY 3 - FRIDAY, JUNE 15, 2001

8:00 a.m. Coffee

8:30 a.m. SESSION 8:

Creating Better Governance

Denise D. Fort, Professor, University of New Mexico School of Law

Panelists: David M. Freeman, Elizabeth Rieke, Larry MacDonnell

Moderator: Kathryn Mutz

10:00 a.m. Break

10:30 a.m. SESSION 9:

Water Policy Reform: Promises, Realities, and the Agenda for the Future

David Getches, Raphael J. Moses Professor of Natural Resources Law,

University of Colorado School of Law

Panelists: Other keynote speakers

12:30 p.m. Adjourn

CONFERENCE MODERATORS

Gary C. Bryner is the director of the Natural Resources Law Center (NRLC). Bryner came to the NRLC after directing Brigham Young University's Public Policy Program. In addition to holding a law degree from BYU, he also has a Ph.D. in Government from Cornell University and a B.A. and M.S. in Economic from the University of Utah. Bryner's publications include work in the areas of air pollution and global environmental issues, and his more thematic works examine the interplay of science, law, markets, administrative behavior, and regulatory policy. He has also been involved in various ways with several other research institutions, including the Brookings Institution, the National Academy of Public Administration, and the Natural Resources Defense Council.

Douglas S. Kenney joined the research staff of the Natural Resources Law Center (NRLC) in July of 1996. He has a broad interdisciplinary background in natural resources, beginning with a B.A. in Environmental, Population and Organismic (EPO) Biology from the University of Colorado, an M.S. in Natural Resources Policy and Administration from the University of Michigan's School of Natural Resources, and a Ph.D. in Renewable Natural Resources Studies from the University of Arizona's School of Renewable Natural Resources. His primary research interests include issues of governance and institutional design pertaining to water and public lands management. Prior to joining the NRLC, he was employed as an independent consultant, primarily working on the Alabama-Coosa-Tallapoosa and Appalachian-Chattahoochee-Flint (ACT/ACF) River Basin study in the southeastern United States.

Sarah Krakoff is an associate professor of Law at the University of Colorado School of Law where she teaches and writes in the areas of Indian law and natural resources. Sarah clerked on the 9th Circuit Court of Appeals, worked for three years on the Navajo Nation for DNA-Peoples Legal Services, as director of their Youth Law Project, then served as Director of the Indian Law Clinic at the University of Colorado representing Indian tribes and individuals in a range of Indian law and environmental matters. She continues to represent Navajo schoolchildren pro bono in ongoing civil rights litigation. Sarah received her bachelor's degree from Yale and her J.D. from University of California, Boalt Hall School of Law. She currently lives in Boulder, Colorado with her husband and daughter.

Daniel F. Luecke is a senior scientist with the Environmental Defense Fund and director of its Rocky Mountain regional office. A graduate of Notre Dame, he completed his Ph.D. in Environmental Sciences at Harvard University. He worked as a senior environmental engineer with a Cambridge, Massachusetts environmental firm and taught at Harvard University's Center for Studies in Education and Development. His articles have appeared in numerous publications on resource use, environmental management, and mathematical modeling of public policy issues.

Mr. Luecke has served on several advisory committees including the following: Colorado Water Resources Research Institute Advisory Committee on Water Policy Research; Denver Metropolitan Water Roundtable; California Department of Water Resources Technical Advisory Committee on Desalination; Advisor to the Food and Agriculture Organization of the United Nations; and EPA Integrated Environmental Management Program Advisory Committee. He currently serves as president of the board of the Colorado Conservation Foundation and of the High Country News Foundation. He is also on the advisory boards of the Colorado Journal of International Environmental Law and Policy and the Colorado State University Environment and Natural Resources Institute, and is the chair of the executive committee of the Colorado Environmental Caucus.

Kathryn Mutz, a native of Colorado, joined the staff of the Natural Resources Law Center (NRLC) in September 1996 with a background in both law and natural resources management. She holds a B.A. in Geography from the University of Chicago, an M.S. in Biology/Ecology from Utah State University, and a J.D. from the University of Colorado, concentrating in natural resources and environmental law. For the 12 years preceding law school, Mutz worked throughout the West for state and federal government and private industry on scientific and public policy issues related to natural resources development. As a biologist she specialized in wetlands, endangered species and reclamation of disturbed lands. At the NRLC her work focuses on forestry, minerals, and environmental justice issues. She has authored several publications ranging from government reports on rare plants and riparian communities to a book chapter on state-federal interactions in coal mining program administration and an article on home rule city regulation of oil and gas development.

Peter Nichols (B.A. The Colorado College; M.P.A. and J.D. University of Colorado) is a water resources consultant in Carbondale, Colorado. He leads the Center's Colorado Water and Growth Project, to be published later this summer. Nichols has a long history of activity on the Colorado water scene. He represented the West Slope on the Colorado Water Quality Control Commission from 1993 to 1999, and served as Chair from 1996 to 1998. He serves on the Board of Directors of the Colorado Water Congress (since 1986), and was President in 1996-97. Nichols also served on the Colorado legislature's professional research staff with responsibility for water and natural resources issues. He later worked in the energy industry in the Western United States before turning to consulting in 1992.

CONFERENCE SPEAKERS

Bonnie G. Colby is a Professor of Agricultural and Resource Economics at the University of Arizona, where she has been a faculty member since 1983. She has authored numerous publications on the economics of water issues, including the books *Water Markets in Theory and Practice* and *Indian Water Rights: Negotiating the Future*. She has provided invited testimony on these matters to state legislatures around the West, and to Congress. She served on the National Research Council's committee on Western Water Management and the Committee on Managing Glen Canyon Dam. She currently serves on the National Academy of Science Committee investigating alleged misuse of economic methodology by the Army Corps of Engineers, involving billion-dollar proposed projects on US waterways.

In addition to her teaching and research, Dr. Colby advises public and private sector organizations on management and valuation of water resources.

Dick Daniel is a Senior Project Manager for the consulting firm of CH2MHILL in Sacramento California. Dick works with the Water Business Group and specializes in environmental restoration at the ecosystem or watershed level. For six years prior to joining CH2MHILL he was the Assistant Director for Ecosystem Restoration with the CALFED Bay-Delta Program. This multi-agency program was charged with resolving the many conflicts associated with current and anticipated water use in California. Dick planned and began implementation of the most comprehensive environmental restoration program in the United States. Prior to joining CALFED he worked for the California Department of Fish and Game for 27 years. He started out as a field biologist and worked his way up to a position of water policy advisor. Along the way, Dick accumulated a good deal of experience in resolving conflicts over the development and use of water and the needs of natural resources.

Denise Fort is on the faculty of the University of New Mexico School of Law, where she teaches Environmental Law and related subjects. Her writing addresses water policy, river restoration, and environmental federalism.

Fort has extensive experience in environmental and natural resources law and policy. She chaired the Western Water Policy Review Advisory Commission, a Presidential commission that prepared a seminal report on western water policy concerns. Prior to her appointment at the Law School, Fort served as Director of the State of New Mexico's Environmental Improvement Division, as the Governor's representative to the National Governors Association, as an environmental attorney with New Mexico PIRG and Southwest Research and Information Center, as Executive Director of Citizens for a Better Environment (CA), and in other capacities concerned with environmental and natural resource matters. She writes extensively about water policy, and was a member of the National Research Council's Water, Science, and Technology Board.

In addition, Fort was the Secretary of New Mexico's Finance and Administration Department, and a special assistant attorney general in the state's Taxation and Revenue Department. She has been a member of the New Mexico Bar since 1975 and has litigated taxation cases.

David Getches is the Raphael J. Moses Professor of Natural Resources Law at the University of Colorado School of Law. Professor Getches has published several books including: *Water Law in a Nutshell* (1997); *Searching Out the Headwaters: Change and Rediscovery in Western Water Law and Policy*, with Bates, MacDonnell and Wilkinson (1993); *Controlling Water Use: The Unfinished Business of Water Quality Control*, with MacDonnell and Rice (1991); *Water Resource Management*, with Tarlock and Corbridge (1993); and *Federal Indian Law*, with Wilkinson and Williams (1998).

Getches was the founding Executive Director of the Native American Rights Fund (NARF), and from 1983-1987, served as executive Director of the Colorado Department of Natural Resources under Governor Richard D. Lamm. He chairs the Board of Trustees of the Grand Canyon Trust and is a member of the Governing Board of the Wilderness Society, the Board of Directors of Defenders of Wildlife, and the Board of Trustees of the Rocky Mountain Mineral Law Foundation. He is on the Advisory Board for the Natural Resources Law Center, American Rivers, and Trust for Public Land.

Professor Getches has consulted widely concerning water policy and national policies concerning indigenous peoples with governmental agencies and non-governmental organizations throughout the United States and in several foreign countries.

Thomas J. Graff founded Environmental Defense's California office in 1971. He now leads Environmental Defense's efforts to harness market forces to conserve and preserve western water resources and to reform transportation policies as the California Regional Director. Mr. Graff played a central role in Congress' passage of the Central Valley Project Improvement Act of 1992, in the signing of the San Francisco Bay/Delta Accord of 1994, in the fashioning of California State Proposition 204 in 1996 (in which state voters authorized a \$995 million environmental restoration bond), and in the formation of the federal Bay/Delta Act of 1996. A member of the Bay Delta Advisory Council (BDAC), the University of California's Agricultural and Natural Resources Advisory Council and the National Research Council's Commission on Geosciences, Environment, and Resources, Mr. Graff has been a lecturer at the University of California's Boalt Law School and a visiting professor at Harvard Law School.

Mr. Graff graduated magna cum laude from Harvard College and received a J.D. magna cum laude from Harvard Law School. He also holds an LL.M. from the London School of Economics.

John D. Leshy is the former Solicitor (General Counsel) of the Department of the Interior for the Clinton Administration. A graduate of Harvard College and Harvard Law School, Leshy is on leave from his position as Professor of Law at Arizona State University

Leshy served in the Carter Administration as Associate Solicitor of Interior for Energy & Resources. He was with the Natural Resources Defense Council (NRDC) in California from 1972 to 1977, and the Civil Rights Division of the Department of Justice in Washington from 1969 to 1972. He has served on numerous commissions and task forces, including the Phoenix Environmental Quality Commission and a National Research Council panel. He has litigated civil rights, environmental and natural resource cases in state and federal courts, and

participated in state and federal legislative processes. He has published widely on public lands, water and other natural resources issues, and on constitutional and comparative law.

Lawrence MacDonnell has been working on environmental and natural resources issues as a lawyer, an economist, and an academic since the early 1970s. He is a nationally recognized expert on water law. He also has special expertise on public lands and endangered species matters. His work often emphasizes incentive-based approaches to problem solving, developed through collaborative processes. He has written more than 40 publications, including books, law review articles, and articles in other journals, and has authored or co-authored 26 research reports. He has given over 100 invited presentations. MacDonnell is co-founder and president of Stewardship Initiatives, a tax-exempt nonprofit corporation promoting collaborative environmental problem solving.

Kathleen Dean Moore, Ph.D. is Professor of Philosophy at Oregon State University and the founding director of the Spring Creek Project for ideas, nature, and the written word. She is the author of five books, including two books of personal essays, Holdfast: At Home in the Natural World (1999, Lyons Press), winner of the 2000 Sigurd Olson Nature Writing Award, and Riverwalking: Reflections on Moving Water (1995, Lyons and Burford: 1996, Harcourt Brace), winner of the 1996 Pacific Northwest Booksellers Association Award. Her book about forgiveness, Pardons: Justice, Mercy and the Public Interest (1989, 1997, Oxford University Press) was selected by Choice Magazine as an “outstanding academic book” of 1990-91.

Dr. Moore’s nature essays combine elements of memoir and natural history to bring philosophical questions to life. In journals ranging from Field and Stream, Audubon, and Wild Earth to the North American Review and the New York Times Magazine, she has published essays on such topics as wilderness, ethics, pain, clear-cutting, country-western dancing, coots, newts, and—what else?—the meaning of life.

Brian Richter is Director of the Nature Conservancy’s Freshwater Initiative, which is currently supporting more than 40 freshwater conservation projects in the U.S., Latin America, and the Caribbean region. Brian has served as National Hydrologist during most of his 14 years with the Conservancy. His responsibilities now include serving as a liaison to public agencies and other organizations involved in river conservation, and leadership of a staff that includes hydrologists, aquatic ecologists, educators and communicators. He works with science staff and conservation project teams across the U.S. and internationally to identify strategies for meeting human needs for water while protecting river flows necessary to sustain native species and river ecosystems. He has published numerous scientific papers on the importance of restoring natural flow regimes, in journals such as Conservation Biology, Freshwater Biology, and Bioscience.

Barton H. “Buzz” Thompson, Jr. is the Vice Dean and Robert E. Paradise Professor of Natural Resources Law at Stanford Law School and Senior Fellow at the Institute for International Studies. In 1999, he was a Visiting Scholar at the Hoover Institution for War, Revolution, and Peace. At Stanford, Professor Thompson heads the Environmental and Natural Resources Law & Policy program and teaches courses in water law and other environmental subjects. His scholarship and research focus on water and biodiversity policies, market and

other alternative approaches to environmental issues, and constitutional protections of property, contracts, and water rights. He is co-author of *Legal Control of Water Resources* (West Publishing, 3d. ed., 2000).

Professor Thompson consults for a variety of private, governmental, and non-profit organizations on water issues. He currently serves as chairman of the board of the Natural Heritage Institute. In 1996, he was a member of the academic panel that drafted the Model Water Transfer Act for California.

Professor Thompson earned his J.D. and M.B.A. in 1976 and his B.A. in 1972 from Stanford University. Following law school, he clerked for Judge Joseph T. Sneed of the U.S. Ninth Circuit Court of Appeals and Justice William H. Rehnquist of the U.S. Supreme Court. Until joining the faculty at Stanford, he was a partner in the Los Angeles office of O'Melveny & Myers. He is a member of the California Bar. At Stanford, he has been the recipient of both the Hurlburt Award for Excellence in Teaching and the Robert E. Paradise Fellowship for Excellence in Teaching and Research.

John E. Thorson a native of New Mexico, received his law degree from Boalt Hall, University of California at Berkeley, and his doctorate in public administration from the University of Southern California. He has served as regional counsel for the Western Governors' Conference (predecessor of the Western Governors' Association); director of the Conference of Western Attorneys General; and as a consultant to the Montana governor, legislature, and executive agencies. He recently completed training in alternative dispute resolution processes at the Harvard Law School. Thorson is a member of the Arizona, California, Montana, and New Mexico state bars, as well as the bar of the United States Supreme Court.

Thorson has authored more than forty articles on water resources law and policy as well as *River of Promise, River of Peril: The Politics of Managing the Missouri River* (University Press of Kansas).

Susan M. Williams is a shareholder in Williams, Janov & Cooney, P.C., a woman-owned law firm in Albuquerque, New Mexico. She is an enrolled member of the Sisseton-Wahpeton Dakota Nation, and a graduate of Radcliff College of Harvard University (B.A., *Magna Cum Laude*, 1976) and of Harvard Law School (J.D. 1981). Upon graduation from law school, Ms. Williams joined Fried, Frank, Harris, Shriver & Kampelman, where she worked in the Indian law department for five years. Susan was the Executive Director of the Navajo Tax Commission in Window Rock, Arizona, serving as Chairperson of the Commission (1976-1978). Susan was a Harvard Law School lecturer in Indian Law for five years and a Stanford Law School lecturer for one year. Susan serves on several boards of directors and national advisory committees on state-tribal relations, resource development, and environmental protection, including the World Wildlife Fund, the American Bar Association Water Resources Committee, the American Indian Resources Institute, St. Michael's Indian School, and the Grand Canyon Trust. Susan and her firm were lead lobbyists in several successful Indian legislative efforts, such as amendments to treat Indian tribes as states under the Safe Drinking Water Act, the Clean Water Act, and the Indian Tribal Governmental Tax Status Act. In April

of 1989, Susan successfully argued the *Big Horn* case before the United States Supreme Court; she is continuing to negotiate with the state and the federal government regarding implementation of that Decree and administration of water use on the Reservation. She represents several other Indian tribes on their water and other matters. She is a member of the District of Columbia Bar, the New Mexico Bar, and the American Bar Association.

CONFERENCE PANELISTS

James Corbridge, Jr. is Professor Emeritus at the University of Colorado School of Law, where he taught for thirty-seven years. He continues to teach at the law school during the summer session. Jim served as Chancellor of the University of Colorado at Boulder from 1986 to 1994. He is the author, with Dan Tarlock and David Getches, *Water Resource Management*, a water law casebook and, with Teresa Rice, *Vranesh's Colorado Water Law*, Revised Edition. He has also written a number of articles about water law.

Jim has been associated with the Natural Resources Law Center since its beginning. He is currently a member of the Natural Resources Law Center's Advisory Board.

David M. Freeman is a Professor of Sociology at Colorado State University, has 34 years of experience in research, teaching, and policy analysis in the areas of social aspects of technology, natural resources conflict, and local organizations for water management in the western United States and South Asia. He has worked with the Peace Corps in program planning, with the U.S.D.A. Forest Service in natural resources policy assessment, with the World Bank and the United States Agency for International Development on matters of organizing local people for improving irrigation water management. Dr. Freeman has published in the areas of social development, social choice, social conflict, and organizing local people to provide and sustain important water-related common property resources with special attention to problems of productivity, social equity, and environmental sustainability. Three books which synthesize important aspects of his research life are *Technology and Society: Issues in Assessment, Conflict, and Choice*; *Local Organizations for Social Development: Concepts and Cases of Irrigation Organization*; and *Choice Against Choice: Constructing A Policy-Assessing Sociology for Social Development*. He is currently working on a book manuscript examining the problems of water organization and re-organization in the South Platte river basin tentatively entitled: *So Much More Than Rivers: Organizing Water As a Common Property Resource on the Poudre and Platte*.

Michael A. Gheleta is a trial attorney with the United States Department of Justice, Environment and Natural Resources Division, General Litigation Section, in its Denver field office. His practice focuses on litigation of water rights, public lands, and environmental issues in federal and state courts throughout the western United States. Among his clients are the Forest Service, Bureau of Land Management, National Park Service, Fish and Wildlife Service, Bureau of Reclamation, and Army Corps of Engineers. He also represents federal officials in natural resources litigation, including the Secretary of the Interior, the Secretary of Agriculture, and the President, whom he is currently defending in litigation challenging creation of various national monuments in the western states.

He received a B.A in political Science from the University of California, Berkeley in 1982, a J.D. from the University of Colorado School of Law in 1988, and an M.A. in Political Science with an emphasis in environmental policy from Colorado School of Law in 1988, and an M.A. in Political Science with an emphasis in environmental policy from Colorado State University in 1988. During 1989 and 1990, he was an associate in the Water and Power Section of the Sacramento, California

law firm of McDonough, Holland and Allen. He began his career with the Justice Department in 1990 in its Sacramento field office handling litigation of reclamation law issues associated with the Central Valley project. Since moving to the Justice Department's Denver field office he has emphasized litigation of federal reserved water rights in comprehensive water adjudications, as well as defense of federal actions regarding public lands. Between 1995 and 1996, he served as Associate Director of the Natural Resources Law Center at the University of Colorado School of Law. In his spare time, he is an avid whitewater river rafting guide, having spent over twenty years guiding rivers throughout the West and in other countries.

David L. Harrison is a practicing water resources lawyer in Boulder, Colorado with the firm of Moses, Wittemyer, Harrison and Woodruff, P.C., of which he is a shareholder and President. Mr. Harrison has been representing municipalities and agricultural users in water resource problem solving since 1972. He has focused extensively on problems of instream flow and ecosystem protection concerning water rights for instream flow and wetlands under the western system of appropriative water rights. In addition, he has been involved in developing statutory schemes for the allocation of bedrock ground water. Mr. Harrison is currently working as a consultant to the Nature Conservancy acting as senior advisor to the Freshwater Initiative. He is a member of the Advisory Board of the Natural Resources Law Center of the University of Colorado Law School in Boulder, Colorado

Mr. Harrison is a graduate of the University of Colorado, holding degrees in law, 1971, and Civil Engineering, Hydraulics, 1968. He has authored several professional articles on water resource matters focusing principally on ground water-surface water issues, and instream flow and ecosystem management matters.

Greg Hobbs is a familiar face in the water community. Before Justice Hobbs was appointed to the Colorado Supreme Court on April 18, 1996, he was a senior partner at the law firm of Hobbs, Trout & Raley, where he served primarily as general counsel to the Northern Colorado Water Conservancy District (NCWCD).

Hobbs practiced law for 25 years prior to becoming a judge, specializing in water, environment, land use, and transportation. He graduated from the University of Notre Dame, majoring in history, and from the law school of the University of California at Berkeley. He began his legal career in 1971 as law clerk to Judge William E. Doyle of the U.S. Tenth Circuit Court. He then worked as an enforcement attorney for the regional office of the U.S. Environmental Protection Agency.

He joined the Colorado Attorney General's Office in January of 1975, helping to form the natural resources section of that office with his colleague from EPA, David Robbins. In 1979, he entered private practice with the law firm of Davis, Graham, and Stubbs for 13 years before the formation of Hobbs, Trout & Raley in October of 1992. While there, Hobbs served as general council for the NCWCD. Hobbs has written many professional papers emphasizing protection for water rights and the environment.

Tracy Labin is a descendant of the Mohawk and Seneca Nations, Tracy first worked for the Native American Rights Fund in 1993 as a summer law clerk in the Washington, D.C. office.

The following year, she joined NARF's Boulder office as a Skadden Fellow and then as a full-time attorney in September of 1994. While at NARF Tracy has worked primarily in the areas of Indian water rights and taxation. She also does work in the areas of Indian education and employment law. Tracy currently serves as NARF's law clerk director and sits on several boards of directors, including the University of Colorado Indian Law Clinic, the Natural Resources Law Center, and the Colorado Bar Association Young Lawyers Division. Her prior experience includes clerking for the Seneca Nation Department of Justice. She has a B.A. from the University of Notre Dame (1991) and a J.D. from Stanford University Law School (1994). She has been admitted to the State Bars of California and Colorado, and is admitted to practice before the Eighth Circuit Court of Appeals, the Tenth Circuit Court of Appeals, the United States Court of Appeals for the Federal Circuit, the United States Court of Federal Claims and the United States Supreme Court.

Gordon N. McCurry is a groundwater hydrologist with Camp Dresser & McKee in Denver. He is involved with water resource evaluations, water supply planning, and hazardous waste site investigations. Currently, Dr. McCurry is managing the groundwater portion of a project funded by the Colorado Water Conservation Board, to investigate the water resources of the South Platte River basin and to develop the databases and models needed to assist the State in managing the water in this basin. He also is involved in comprehensive water resources management studies for Santa Fe, New Mexico and Olympia, Washington.

Dr. McCurry has been with Camp Dresser & McKee since 1985. He has been an adjunct faculty member at the University of Denver's Environmental Policy and Management Division since 1991, where he developed and teaches the course titled Ground Water Management. He has been a referee for the peer-review Journal of Groundwater since 1992. Dr. McCurry has a B.S. in Geology from Pennsylvania State University (1981), a M.S. in Geology from West Virginia University (1985) and a Ph.D. in Geology from the University of Colorado (2000). His dissertation examined the water resources and water rights impacts to the Boulder Creek watershed under scenarios of climate change. As part of this research he wrote a package for the USGS groundwater flow model, Modflow, that determines irrigation diversions under the prior appropriation system while accounting for the dynamic interactions of stream flow, diversions, recharge and return flow.

Bill Paddock is a 1978 graduate of the University of Colorado School of Law. He joined the water unit of the Colorado Attorney General's Office upon graduation, and during his tenure there represented state agencies in water rights matters. He was the legal advisor to Colorado's Compact Commissioners on the Arkansas River Compact and the Rio Grande Compact, and became the head of the water units and was responsible for the supervision of the then on-going federal reserved rights and Indian reserved rights litigation in Colorado. In 1985, Mr. Paddock went into private practice. He is now the manager of Carlson, Hammond & Paddock, L.L.C., in Denver, Colorado, and has a diverse practice that includes, among other things, representing agricultural, municipal, and industrial clients in water rights and water quality matters. He is a frequent speaker on water rights and water law at continuing legal education and engineering seminars. Mr. Paddock has authored numerous articles including, most recently, law review articles on the 1906 Convention that allocated water of the Rio Grande between the United States

and the Republic of Mexico, and on the Rio Grande Compact of 1938. Mr. Paddock is also the Colorado Reporter for the Rocky Mountain Mineral Law Foundation's Water Law Newsletter.

Elizabeth "Betsy" Rieke is the Area Manager for the Bureau of Reclamation in the Lahontan Basin, which includes the Truckee, Carson, Humboldt and Walker River basins in Nevada. Her previous positions include: Director, Natural Resources Law Center, University of Colorado School of Law; Assistant Secretary for Water and Science in the Department of the Interior; Director of Water Resources for the State of Arizona; Partner in Jennings Strouss and Salmon in Phoenix, Arizona, representing various water clients, including the Salt River Project. She has spent most of her career addressing complex water resources conflicts.

Lee T. Rozaklis is a co-founder and principal engineer at Hydrosphere Resource Consultants, Inc. in Boulder, Colorado. He has over 20 years of experience in water resources management and planning. He has extensive expertise in water resource management issues in the South Platte and Upper Colorado basins.

He was the project manager for the State of Colorado's Metropolitan Water Supply Investigation and Denver Basin and South Platte River Basin Technical Study. The results of these studies formed the analytical basis for Colorado's plan for addressing the impacts of new water-related activities in Colorado on critical habitats for Platte River endangered species. He has also served as an expert to the Department of Interior on South Platte River basin issues for the Platte River Programmatic EIS, which is evaluating alternatives for recovering the endangered species of the Central Platte River.

He pioneered the City of Boulder's innovative Boulder Creek instream flow program, and has assisted the Nature Conservancy with developing an instream flow management plan for the Phantom Canyon Preserve. In addition, He developed the operating principles for integrated operations of the Colorado-Big Thompson and Windy Gap projects, which were adopted by the projects' sponsors and the United States.

He has investigated the technical and institutional feasibility of water pollutant trading programs and market-based systems for clean-up of "orphan" pollution sources for "out-of-kind" credit, consistent with the intent of the Clean Water Act. He has quantified the water quality impacts of water rights augmentation plans under the Colorado Water Quality Control Commission's Anti-degradation Rule. He has served as expert witness in several Clean Water Act-related litigations involving hard rock mines.

Hal Simpson, is responsible for the direction and management of the Colorado Division of Water Resources, which has a staff of 240 FTE and a budget of approximately \$14 million as the State Engineer. The Division is responsible for distribution and administration of water in accordance with statutes and interstate compacts; the implementation of a statewide dam safety program; the permitting of the use of ground water and construction of wells; the collection and dissemination of data on water use and stream flow; and conducting various studies concerning water resources and the availability of water supplies. The State Engineer is Colorado's commissioner on five interstate compacts and is responsible for assuring compliance with these compacts. The State Engineer is

also the Executive Director of the Colorado Ground Water Commission and is the Secretary of the Board of Examiners for Water Well and Pump Installation Contractors.

His education includes a B.S. and M.S. in Civil Engineering from Colorado State University in 1967 and 1969, respectively, with specialization in water resources and ground water hydrology and post-graduate work in water resources at the University of Colorado. Mr. Simpson is a registered professional engineer in Colorado and is a member of Chi Epsilon.

Kenneth M. Strzepak is an Associate Professor of Civil, Environmental, and Architectural Engineering at the University of Colorado. Kenneth received a B.S. and M.S. in civil engineering, as well as a Ph.D in water resource systems from the Massachusetts Institute of Technology. Most recently, he was appointed a fellow at the International Water Management Institute. His international work has included consulting, research, and direction for the United Nations Industrial Development Organization and the International Institute for Applied Systems Analysis in Austria. He has taught at Texas A & M University, Carnegie Melon University, and since 1990 at the University of Colorado-Boulder.

His areas of interest and expertise include River Basin Modeling, Agricultural Drainage systems, Decision Support systems, and Water and Integrated Assessments of Climate Change Impacts. In the coming years he expects to continue to pursue the topics of sustainable water, environmental, and agricultural systems at the local and global scale. He also works in the area of Earth Systems Engineering, evaluating the interaction of natural and human managed systems.

Jeanne S. Whiteing is an attorney in private practice with Whiteing & Smith in Boulder, Colorado. She exclusively represents Indian tribes and tribal entities, focusing on natural resources law, Indian water rights, land claims and jurisdictional and tax issues. Ms. Whiteing represents several tribes in ongoing water rights negotiations and litigation. She represented the Northern Cheyenne Tribe in a water rights settlement approved by Congress in 1992.

Ms. Whiteing is an enrolled member of the Blackfeet Tribe. She is a graduate of Stanford University (B.A. 1972), and received her law degree from the University of California, Berkeley (J.D. 1975). She was a staff attorney and Deputy Director with the Native American Rights Fund from 1975-1986, before going into private practice.