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AGENDA: Biodiversity Protection: Implementation and Reform of the Endangered Species Act

University of Colorado Boulder. Natural Resources Law Center

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**Biodiversity Protection:
Implementation and Reform of the Endangered Species Act
June 9-12, 1996**

Sunday, June 9

7:00 p.m. **Keynote Address: The Scientific Underpinnings of Biodiversity Protection**
Jane Lubchenco, Valley Professor of Marine Biology, Department of Zoology,
Oregon State University, Corvallis (open to the public)

Monday, June 10

8:20 Registration and coffee

8:50 **Welcome**
Marianne Wesson, Interim Dean, University of Colorado School of Law

9:00 **Introduction to Conference**
Elizabeth Ann Rieke, Director, Natural Resources Law Center

9:20 **The Ethical Aspects of Biodiversity Protection: Duties to Human Beings
and Duties to Other Species**
Dale Jamieson, Professor, Department of Philosophy, University of Colorado at
Boulder

10:05 Break

10:30 **Overview of the Endangered Species Act**
Michael J. Brennan, Holland & Hart, Jackson, Wyoming

11:15 **Bioregional Approaches to Species Protection**
George T. Frampton, Jr., Assistant Secretary for Fish, Wildlife and Parks, U.S.
Department of the Interior, Washington, DC

12:00 Lunch (on your own)

1:30 **The ABCs and XYZs of HCPs (Habitat Conservation Plans) and
4(d) Rules**
Donald J. Barry, Counselor to the Assistant Secretary for Fish, Wildlife and
Parks, U.S. Department of the Interior, Washington, DC

2:15 **Landscape-Scale HCPs: The California Experience**
Lindell Marsh, Siemon, Larsen & Marsh, Irvine, California

- 3:00 Break
- 3:30 **Lessons from the Southwest — With and Without HCPs: The Tortoise and the Owl**
Duane Shroufe, Director, Arizona Game & Fish Department, Phoenix
- 4:15 **Lessons from Reintroduction: The Bear and the Wolf**
Michael Roy, National Wildlife Federation, Northern Rockies Natural Resource Center, Missoula, Montana
- 5:00 Recess for the Day
- 6:00 Cookout on Flagstaff Mountain
- 7:45 After Cookout Talk: "**The Spider Who Dreamed the World -- a Meditation on Hierarchy, Humility and Biodiversity,**" Amphitheatre on Flagstaff Mountain
Don Snow, Executive Director, Northern Lights Institute, and Editor, Northern Lights Magazine, Laramie, Wyoming

Tuesday, June 11

- 8:30 **Habitat-Based, Multi-Species HCPs and Other Agreements: Lessons from the Northwest**
Jim Kraft, General Counsel, Plum Creek Timber Co., Seattle
- 9:15 **Columbia River Salmon: Are Any of the ESA Tools Adequate for the Job?**
John Volkman, General Counsel, Northwest Power Planning Council, Portland
- 9:55 **Upper Colorado River Fish: A Recovery Program that is Working — Myth or Reality?**
James S. Lochhead, Director, Colorado Department of Natural Resources, Denver
- 10:35 Break
- 11:00 **A Comparison: Lessons from the Columbia and the Upper Colorado Fish Recovery Efforts**
Mary Wood, Associate Professor, University of Oregon School of Law, Eugene
- 11:40 **The Enigma of the Blind Salamander and Groundwater Pumping: Lessons from the Edwards Aquifer, Texas**
Charles Shockey, U.S. Department of Justice, Washington, DC
- 12:15 Lunch (on your own)

- 1:30 **Panel: The ESA, Water Rights and Regulatory Takings**
Moderator: David H. Getches, Raphael J. Moses Professor of Natural Resources Law, University of Colorado School of Law
- Brian E. Gray, Associate Dean, Hastings College of the Law, San Francisco
Barton H. Thompson, Jr., Professor, Stanford Law School, Stanford
- 2:50 Break
- 3:15 **The ESA: Integration with State Programs**
Douglas P. Wheeler, Secretary, California Resources Agency, Sacramento
- 4:00 **The ESA: Tramping on Tribal Rights?**
Bill Frank, Jr., Chairman, Northwest Indian Fisheries Commission, Olympia, Washington
Robert Pelcyger, Fredericks, Pelcyger, Hester & White, Boulder
- 4:50 **The ESA — Economic Impacts: The Perception and The Numbers**
Jon Souder, Assistant Professor, School of Forestry, Northern Arizona University, Flagstaff
- 5:30 End of Day; Reception on Law School Lawn
- 8:15 **The ESA: New Developments in the Congress**
Sarah Bittleman, Legislative Assistant on the Environment, Office of Congressman Jim Saxton, Washington, DC

Wednesday, June 12

- 8:30 **Reform: Overview of Administrative Reforms**
Dinah Bear, General Counsel, Council on Environmental Quality, Washington, DC
- 9:05 **Through a Private Landowner Looking Glass: Overview of Proposed Legislative Reforms**
Steven P. Quarles, Crowell & Moring, Washington, DC
- 9:40 Break
- 10:10 **Reform Proposals — Panel of Advocates**
Moderator: Elizabeth Ann Rieke, Director, Natural Resources Law Center
- The Western Governors' Association Perspective**, John A. Harja, Utah Governor's Office; Chair of Western Governors' Association Work Group for Endangered Species Act Reauthorization, Salt Lake City

A Tribal Perspective, Ted Strong, Executive Director, Columbia River Inter-Tribal Fish Commission, Portland, Oregon

An Environmentalist's Perspective, Robert Irvin, Center for Marine Conservation, Washington, DC

An Ecosystem Perspective, Oliver Houck, Professor of Law, Tulane University, New Orleans

An Urban Water Manager's Perspective, Hamlet J. (Chips) Barry, III, General Manager, Denver Water Board

12:00 Lunch, in Law School lounge

Luncheon Speech: **The Role of the ESA in the Legal Ecosystem of Water Resources Management**, in Law School Courtroom

John D. Leshy, Solicitor, U.S. Department of the Interior, Washington, DC

1:45 **Chaos or Continuity: The Reform Proposals**

Panel of morning speakers

Moderator: Elizabeth Ann Rieke

3:15 End of Program

**BIODIVERSITY PROTECTION:
IMPLEMENTATION AND REFORM OF THE ENDANGERED SPECIES ACT
June 9-12, 1996**

CONFERENCE ORGANIZERS

BETSY RIEKE became Director of the Natural Resources Law Center in August 1995, after serving from 1993-95 as Assistant Secretary for Water & Science in the Department of the Interior. Before going to Washington she served in the Arizona Department of Water Resources, as Director from 1991-93, and earlier as Chief Legal Counsel. She also practiced with the law firm of Jennings, Strouss & Salmon in Phoenix, specializing in water law and administrative and legislative matters. For over a decade she worked on implementing Arizona's Groundwater Code, passed in 1980. She has recently been credited with helping water interests in California reach a fragile truce in battles over the Sacramento-San Joaquin Delta. Rieke graduated from Oberlin College (1965) and received her law degree with highest distinction from the University of Arizona (1981).

MICHAEL A. GHELETA (B.A. University of California, Berkeley, '82; M.A. Colorado State University, '88; J.D. University of Colorado, '88) became Associate Director of the Natural Resources Law Center in July, 1995. Between 1990-95 he was a Trial Attorney with the U.S. Department of Justice, Environment and Natural Resources Division, General Litigation Section, in the Sacramento and Denver Field Offices. In this position he was responsible for conducting litigation in federal and state courts throughout the West, concerning water, reclamation law, public lands, and other natural resources issues. He was also an instructor in the Justice Department's annual Environmental Law Institute. He is the author of "Water Use Efficiency and Appropriation in Colorado: Salvaging Incentives for Maximum Beneficial Use," 58 U. Colo. L. Rev. 657 (1988). Between 1988-90 he was an Associate in the Water and Power Section of the Sacramento firm of McDonough, Holland & Allen. He recently received, and has accepted, an appointment with the U.S. Department of Justice and will be rejoining the department shortly, where he will be assuming a major role in key litigation seeking to protect instream flows on western public lands through assertion of federal reserved water rights.

DAVID H. GETCHES (A.B. Occidental College, 1964; J.D. University of Southern California, 1967) is Raphael J. Moses Professor of Natural Resources Law at the University of Colorado School of Law, teaching and writing in the fields of water, Indian, public land, and environmental law. He has published several books, including *Searching Out the Headwaters: Change and Rediscovery in Western Water Policy*, with Bates, MacDonnell, and Wilkinson (1993), *Controlling Water Use: The Unfinished Business of Water Quality Control*, with MacDonnell and Rice (1991), *Water Law in a Nutshell* (1990), and *Water Resource Management*, with Meyers, Tarlock and Corbridge (1993). He served as Executive Director of the Colorado Department of Natural Resources from 1983-86 and was the founding Executive Director of the Native American Rights Fund (NARF) in Boulder. He chairs the Boards of the Grand Canyon Trust and the Land and Water Fund of the Rockies (LAW Fund), and is on the Board of the Rocky Mountain Mineral Law Foundation.

CHARLES F. WILKINSON (B.A. Denison University; LL.B. Stanford University) joined the faculty at the University of Colorado School of Law in June 1987. He was formerly Professor of Law at the University of Oregon School of Law and Visiting Professor of Law at Michigan and Minnesota. A former staff attorney with the Native American Rights Fund, his books include *Land of Fire, Land of Conquest: The Story of the Colorado Plateau*, 1995; *Federal Public Land and Resources Law*, 3rd ed. (1993) (with Coggins and Lesly); *Cases and Materials on Federal Indian Law*, 3rd ed. (1994) (with Getches and Williams); *Land and Resource Planning in the National Forests* (1987) (with Anderson); *American Indians, Time and the Law - Native Societies in a Modern Constitutional Democracy* (1987); *The American West - a Narrative Bibliography and a Study in Regionalism* (1989), *The Eagle Bird - Mapping A New West* (1992) and *Crossing the Next Meridian - Land, Water and the Future of the West* (1992). He has received teaching awards from students at Colorado, Michigan, and Oregon. He received the University of Oregon's Faculty Excellence Award in 1986 and the University of Colorado's Overall Faculty Excellence Award in 1988. The National Wildlife Federation awarded him its 1990 National Conservation Achievement Award for outstanding contributions to the management of the nation's natural resources.

FACULTY

DONALD BARRY has spent 21 years working on legal and policy matters involving the Endangered Species Act. After law school, he served as a staff attorney for the U.S. Fish & Wildlife Service from 1975-80, then as Chief Counsel for the Service from 1980-85. Subsequently he worked for the House of Representatives' Committee on Merchant Marine and Fisheries as the Committee's General Counsel for Fisheries and Wildlife. In 1991 he joined the World Wildlife Fund as Vice President for U.S. Land and Wildlife. In 1993 he left WWF to become Counselor to the Assistant Secretary for Fish and Wildlife and Parks in Interior, where he focuses on the policies and programs of the Fish & Wildlife Service. He helped draft every major regulation implementing the Endangered Species Act, including the Section 7 consultation regulations, and has been involved in every ESA reauthorization debate since passage of the original Act. He has also authored or signed many of the key legal opinions interpreting the ESA for the Service and the Department.

HAMLET J. (CHIPS) BARRY III has been Manager of the Denver Water Department since January 1991. He was Executive Director of the Colorado Department of Natural Resources (water, mining, parks, wildlife, geology, oil and gas) for Governor Romer from 1987-1990. His degrees are from Yale College, and Columbia Law School, but he feels he was educated while practicing law and living in rural Alaska, Micronesia, and Colorado. In one way or another, he has been enmeshed in natural resources and water issues since 1969, either as a practicing attorney or as a bureaucrat. His great-grandfather, later a Colorado Supreme Court Justice, was one of the first persons in Colorado to fill a wetland for subdivision development (an EPA permit was not needed in those days). The future Justice then sued the Denver Water Company to get water service to the area, now known as Montclair, where Barry still lives. His favorite fish with which he identifies closely-probably because of his current job-is the flannel mouth sucker.

SARAH BITTLEMAN joined the staff of Congressman Jim Saxton in February 1996 as an Environmental Legislative Assistant, and has been drafting legislation related to Endangered Species Act reauthorization. Her law degree is from Tulane University School of Law, where she was very active in public interest law. While an undergraduate at Union College in Schenectady, New York, she completed a full-time internship for the Environmental Planning Lobby in Albany on the New York State Endangered Habitat Bill. After college she sailed for a living on board tall ships and also worked on a year-long research project for the Seamen's Church Institute on the social, political and legal needs of United States commercial fishers. After law school she took a North Carolina Sea Grant Marine Policy Fellowship at East Carolina University in Greenville, NC, during which time she received a Masters of Public Administration, completing a professional paper on "Policy Options to Reduce Red Snapper By-Catch in the Gulf of Mexico Shrimp Fishery." Her article on "Toward Cooperative Fisheries Management: A Reassessment of State and Federal Fisheries Jurisdictional Issues," is being published in 1996 by the Tulane Environmental Law Journal.

DINAH BEAR, General Counsel for the President's Council on Environmental Quality, has extensive responsibility for legal interpretation of the National Environmental Policy Act (NEPA). In addition she has lead staff responsibility for coordination of the development of the Administration's position for the reauthorization of the Endangered Species Act with the Executive Office. In this capacity she deals with such issues as economic incentives, water rights, regulatory reform and legislative strategy. From 1983-93 she served as the U.S. Chair of the legal area for the environmental agreement with the former Soviet Union. In that capacity she led four delegations to the Soviet Union, hosted three delegations to the U.S., and assisted in negotiations for the proposed international park in the Bering Sea area. She also served as the U.S. Chair of the Environmental Assessment Project under the U.S.-Japan Agreement in the field of Environmental Protection, and participated in negotiations for the Economic Commission for Europe on the Convention on Environmental Impact Assessment in a Transboundary Context. Among recent publications is an article on "Using the National Environmental Policy Act to Protect Biology Diversity," *Tulane Environmental Law Journal*, 1994. She graduated from McGeorge School of Law, University of the Pacific in 1977 and from the University of Missouri School of Journalism in 1974.

MICHAEL J. BRENNAN is a partner in the Jackson Hole, Wyoming office of Holland & Hart, where he conducts an extensive environmental and natural resources law practice with particular focus on the Endangered Species Act and other wildlife conservation laws and programs. After clerking for Judge Stephanie K. Seymour of the US Tenth Circuit Court of Appeals, he joined the firm in 1983, and practiced in the firm's Denver and Washington, D.C. offices, with particular emphasis on regulatory counseling and litigation under the Comprehensive Environmental Response, Compensation and Liability Act, and the Resource Conservation and Recovery Act, and the Endangered Species Act. Mr. Brennan left Holland & Hart in 1989 to join the United States Fish & Wildlife Service, where he served as the Executive Assistant Director of the Service. While with the Service, his principal responsibilities centered around the management and resolution of conflicts arising under the Endangered Species Act. He returned to the firm in 1993. He has spoken extensively on the Endangered Species Act, and is Vice-Chairman of the American Bar Association SONREEL-Special Committee on Endangered and Threatened Species.

GEORGE FRAMPTON became Assistant Secretary for Fish and Wildlife and Parks in the Department of the Interior in 1993, where he has policy, budget, and administrative responsibility for the U.S. National Park Service, the U.S. Fish & Wildlife Service, and the National Biological Service. He has been visiting lecturer at Duke University Law School, special counsel to the Equal Employment Opportunity Commission, a VISTA volunteer lawyer, and a fellow at the Center for Law and Social Policy, where he litigated consumer and environmental issues. He has written extensively about the environment, including an introduction to *Breaking Ground*, the autobiography of forest management pioneer Gifford Pinchot. He was also author of "Bringing Racial Diversity to the Environmental Movement," in *Reconstruction*, and approximately 30 op-ed pieces in national newspapers.

BILLY FRANK, JR. is Chairman of the Northwest Indian Fisheries Commission, serving as the key natural resources representative for the 20 Treaty Indian Tribes of western Washington. He is the Commissioner representing the Nisqually, Puyallup and Squaxin Island Tribes. He is an enrolled member of the Nisqually Tribe and served as Fisheries Manager for the tribe for more than a decade. He was a Commissioner to the Washington State Centennial Commission, and Chairman of the Native American Committee. He has been involved at the policy level with the Timber-Fish-Wildlife process from its inception, as well as the U.S./Canada Salmon Interception Treaty, Watershed Planning, the Chelan (Water Resources Planning) Agreement and numerous additional local, state, federal and international resource cooperative management organizations and efforts. He has performed a leadership role in the development and operation of the Wa He Lut Indian School over the past two decades. He has received the Albert Schweitzer Award for Humanitarianism, American Indian Distinguished Service Award, the National Common Cause Award, the Washington State Environmental Excellence Award and numerous additional honors.

BRIAN E. GRAY is the Associate Academic Dean and a Professor of Law at the University of California, Hastings College of the Law, in San Francisco, where he teaches Water Resources, Federal Public Lands and Natural Resources, and American Indian Law. He is the author of numerous articles in these fields. He represents the City and County of San Francisco in the Bay-Delta Water Quality Proceedings and has argued several recent cases before the Ninth Circuit on behalf of the Natural Resources Defense Counsel and other environmental organizations. He also has served as a consultant to the State of Missouri on interstate water litigation and to the Environmental Protection Agency and the San Joaquin Valley Drainage Program on water rights issues. He is a past chair of the Committee on the Environment of the State Bar of California and is a member of the Board of Directors of the Natural Heritage Institute. He recently received the Nature Conservancy's Volunteer Service Award. His publications include: "The Market and the Community: Lessons from California's Drought Water Bank," 1 West Northwest 17 (1994); "The Modern Era in California Water Law," 45 Hastings L.J. 249 (1994).

JOHN A. HARJA is on the staff of the Governor of Utah, Michael O. Leavitt, responsible for issues related to federal land management agencies, including agency planning, intergovernmental relations, and resource law. He also works with the state agency charged with management of the Utah school trust lands, currently serving as Vice-Chair of the Board of Trustees for that agency, and is in charge of the State's effort to close a large trade of school trust lands captured with National Parks, Forests and Indian Reservations. He also serves on several boards related to coordination of state and tribal efforts to provide governmental services to reservations. He graduated from the University of Utah School of Law in 1983, and worked for a number of years as an attorney in both a small natural resources law firm and within the Department of the Interior.

OLIVER AUSTIN HOUCK is a Professor of Law at Tulane University where he directs its environmental law program. A graduate of Harvard College and Georgetown Law Center, he served as an Assistant U.S. Attorney for the District of Columbia and as General Counsel for the National Wildlife Federation in Washington, DC prior to joining the Tulane faculty in 1981. He currently serves on the board of directors of the Environmental Law Institute and the litigation review boards of the Defenders of Wildlife and the Environmental Defense Fund. A co-author of "Science and the Endangered Species Act," National Research Council, 1995 and "Biodiversity and the Law," Island Press, 1996, he has published widely on wildlife, wetlands, water pollution control and public interest law.

WILLIAM ROBERT IRVIN is Deputy Vice President for Marine Wildlife and Fisheries Conservation with the Center for Marine Conservation in Washington, D.C., where he directs CMC's advocacy on behalf of fisheries, marine mammals, and endangered species conservation. He has also served as Senior Counsel for Fisheries and Wildlife with the U.S. Senate Committee on Environmental and Public Works; Director and Counsel with the Fisheries and Wildlife Division, National Wildlife Federation; Trial Attorney with the Civil Division, U.S. Department of Justice; and was in private legal practice in Portland, Oregon. He is a 1983 graduate of the University of Oregon School of Law, holds a B.S. degree in Forest Science from Utah State University, and is a member of the Summer Faculty at the Vermont Law School, where he teaches Biodiversity Protection.

DALE JAMIESON is Professor of Philosophy and former Director of the Center for Values and Social Policy at the University of Colorado, Boulder, where he teaches environmental ethics, philosophy of biology, and a graduate seminar on policy responses to global environmental change. He is also Adjunct Scientist in the Environmental and Societal Impacts Group at the National Center for Atmospheric Research. He has edited or co-edited five books, including *Reflecting on Nature: Readings in Environmental Philosophy*, (1994) and *Reading on Animal Cognition* (1996). He is also co-author of a major report to the U.S. Environmental Protection Agency, *Cultural Barriers to Behavioral Change: General Recommendations and Resources for State Pollution Prevention Programs*. His research has been funded by the Ethics and Values Studies Program of the National Science Foundation, the U.S. EPA, and the National Endowment for the Humanities, and his work has been translated into several languages. In the fall he will become the Henry R. Luce Professor of the Human Dimensions of Global Change at Carleton College in Northfield, Minnesota. His Ph.D. is from the University of North Carolina at Chapel Hill.

JIM KRAFT is currently Vice President, General Counsel and Secretary for Plum Creek Timber Company, the second largest publicly traded forest products company in the Pacific Northwest. Plum Creek owns over 2 million acres of timberland in Montana, Idaho and Washington which provides habitat for numerous listed and candidate species. He has been actively engaged in developing habitat conservation plans and other cooperative wildlife conservation agreements for Plum Creek. Previously he was assistant vice president at Burlington Resources Inc., a natural resources holding company. He began his legal career as an associate with the New York law firm Milbank, Tweed, Hadley & McCloy, where he practiced between 1982-84. He graduated from Harvard Law in 1982 and received his undergraduate degree in East Asian Studies from Harvard College in 1978.

JOHN D. LESHY became the Solicitor of the Department of the Interior in May 1993. In the previous ten months he had served as Special Counsel to Chairman George Miller of the House Natural Resources Committee, as Interior Department team leader for the Clinton-Gore transition, and as special assistant for legal affairs to Secretary Babbitt. He is on leave from his position as Professor of Law at Arizona State University, where he has taught water law, natural resources, constitutional and Indian law since 1980. From 1977 to 1980 he was Associate Solicitor for Energy & Resources at Interior. He was on the staff of the Natural Resources Defense Council (NRDC) in California from 1972-77 and the Civil Rights Division of the Department of Justice from 1969-72. He is a graduate of Harvard College (A.B. 1966) and Harvard Law School (J.D. 1969).

JAMES LOCHHEAD was educated at Willamette College in Salem, Oregon. He received his B.A. at the University of Colorado in 1974, and his J.D. from the University of Colorado School of Law in 1978. Mr. Lochhead's professional experience has included Executive Director of the Colorado Department of Natural Resources; Shareholder in Leavenworth & Lochhead, PC, with areas of concentration in water rights law, municipal and special district law, real estate law, land use law, and business/commercial law. He was also an Associate with Musick, Williamson, Schwartz, Leavenworth & Cope, PC. Mr. Lochhead's appointments and honors have included Governor's Representative to the Bureau of Reclamation Seven Basin States Task Force on Colorado River Reservoir Operations; Colorado Commissioner for the Upper Colorado River Commission; Colorado River Mainstem Representative, Colorado Water Conservation Board, Vice-chairman (1985) and Chairman (1986-87) of the Colorado Water Conservation Board; and Advisory Board Member of the Natural Resources Law Center.

JANE LUBCHENCO is the Valley Professor of Marine Biology, Department of Zoology, Oregon State University. A marine biologist by training, Dr. Lubchenco is engaged in a wide variety of activities intended to address serious environmental problems by improving the scientific understanding of issues, making the best possible scientific information and expertise more accessible to policy and decision makers, and by improving the public's understanding of ecological topics. She led the innovative efforts of the Ecological Society of America to set national priorities for ecological research. This endeavor resulted in the Sustainable Biosphere Initiative, which advances ecological research and provides policy-relevant ecological expertise to national policy and decision-makers. Dr. Lubchenco coordinated the sections of the United Nations Environment Programme's newly released Global Biodiversity

Assessment. She is President-Elect of the American Association for the Advancement of Science and a past President of the Ecological Society of America. She is a Pew Scholar in Conservation and the Environment, and a MacArthur Fellow. Her B.A. is from Colorado College, her M.S. from the University of Washington, and her Ph.D. from Harvard.

LINDELL MARSH is a partner in the California office of Siemon, Larsen & Marsh. He graduated from Hastings College of the Law and specializes in matters relating to: land use and natural resources; environmental impacts including air and water quality (including wetlands); coastal and ocean resources; and urban revitalization. He assists public and private sector clients to develop strategies and programs to address unusually complex or sensitive issues such as those relating to land and natural resource development and wildlife (e.g., endangered species), often acting as a neutral "facilitator." He has served as co-chairman of the Board of Directors of the Growth Management Institute, and also as adjunct professor at the Georgetown Law Center, Washington, DC. He has been a visiting lecturer at several schools and institutes and is the author of a number of books and articles on land use and environmental issues.

ROBERT S. PELCYGER has been practicing Indian Law exclusively for over 25 years, following his graduation from Yale Law School. Since 1982 been an owner-partner with the Boulder firm Fredericks, Pelcyger, Hester & White, which specializes in all facets of Indian law and Indian related natural resources issues, with special emphasis on water, land, energy, jurisdictional and sovereignty issues. He has been lead attorney for the Pyramid Lake Paiute Tribe in its lawsuits to obtain more water for the Pyramid Lake fishery, and he has represented other Tribes in water matters, including the Crow Tribe, the Northern Arapaho Tribe, the Fort Mojave Tribe, the Ute Tribe of the Uintah and Ouray Reservation, and several Southern California bands. From 1971-81 he was a Senior Attorney with the Native American Rights Fund in Boulder, and before that, with California Indian Legal Services. He was a Fulbright Scholar in London. Publications include "The Winters Doctrine and the Greening of the Reservations" (1977). He is a contributing author for *Felix S. Cohen Revised Handbook of Indian Law* (1982). His work on the Truckee-Carson-Pyramid Lake settlement was featured in the April 1993 issue of *Resource Law Notes*.

STEVEN P. QUARLES is a partner in the Washington, D.C. firm of Crowell & Moring where he practices natural resource and environmental law. He represents a wide range of clients including members of the forest products, mining, and oil and gas industries and their associations, the State of Wyoming, and the Western Governors' Association. He also serves as litigation counsel to the American Forest & Paper Association and as legislative counsel to the Endangered Species Coordinating Council, an organization of natural resource industries and labor unions formed to address the reauthorization of the Endangered Species Act. His practice involves a mix of litigation, counseling, and legislative representation. He graduated from Princeton University and Yale Law School and held a Fulbright Scholarship to Aligarh Muslim University in India. Previously he served as a program advisor to the Ford Foundation in Brazil, as counsel to the Committee on Energy and Natural Resources of the U.S. Senate, and in other appointments with the Department of the Interior, as Director of the Office of Coal Leasing and as Deputy Under Secretary. He was a member of the Board of Mineral and Energy Resources of the National Academy of Sciences. He and his wife own and operate a horse breeding farm in Mt. Airy, Maryland.

MIKE ROY is a wildlife biologist for the National Wildlife Federation's Northern Rockies Natural Resource Center in Missoula, Montana. His work focusses on recovery programs for threatened, endangered and sensitive species, including grizzlies, wolves, lynx, bull trout, and trumpeter swans in Montana, Wyoming and Idaho, as well as public lands forestry issues. He received his B.S. in the College of Forest Resources at the University of Maine, his M.S. in Environmental Studies at the University of Montana and is currently completing a Ph.D. in Forest Resources, for which he is examining endangered species policy on Natural Forests in northern Japan. After his undergraduate studies, he worked for a number of years as a pilot for the U.S. Coast Guard and for commercial airlines.

CHARLES R. SHOCKEY abandoned hope for a professional baseball career with his beloved Cleveland Indians somewhere early in life, opting eventually for a career in law. His undergraduate degree is from Dartmouth College and J.D. from Georgetown University Law Center (1975). He worked at the Federal Energy Administration in the Department of Energy where he "zealously regulated oil companies to separate them from excessive windfall profits" (1976-80); then from 1980-83, he practiced law at Bracewell & Patterson, where he "protected oil company clients' windfall profits from overzealous federal regulators." In 1983 he joined Interior's Office of the Solicitor, working on outer continental shelf oil and gas leasing. In 1986 he went to Justice's Environment & Natural Resources Division, Wildlife & Marine Resources Section as a trial attorney for Endangered Species Act/wildlife conservation laws. In 1996 he was appointed Assistant Chief, Wildlife Section in the Justice Department.

DUANE L. SHROUFE has been Director of the Arizona Game & Fish Department since 1989, having joined the department in 1984 as the agency's first Assistant Director for Operations. He came to Arizona from the Indiana Department of Natural Resources, where he served as Property Manager Biologist at an 8,000-acre wildlife area, planning and managing programs which affected native populations, and later as Property Staff Specialist, coordinating and participating in policy-making for Indiana's Fish & Wildlife Areas. He was named Biologist of the Year in 1975 by the Indiana Division of Fish & Wildlife, and received the Wildlife Officer of the Year Award from Shikar Safari in 1976. His B.S. in wildlife biology, botany, and zoology is from Michigan State University (1967).

DON SNOW, Visiting Writer at the University of Wyoming, is the founder and associate editor of *Northern Lights Magazine*. His books include (with Deborah Clow) *Northern Lights: A Selection of Writing from the American West*; *Inside the Environmental Movement: Meeting the Leadership Challenge*; and forthcoming (with John Baden), *The Next West: New Perspectives on Public Lands, Economics and Community in the American West*. In July, under his direction, Northern Lights Institute will launch a triquarterly journal, *The Chronicle of Community*, to explore consensus-based decision-making in Western natural resource issues.

JON A. SOUDER is Assistant Professor of Natural Resources History, Policy and Economics in the School of Forestry at Northern Arizona University. He has M.S. and Ph.D. degrees in Natural Resource Economics and Management from the University of California, Berkeley. For the past seven years he has principally studied state trust lands management in the western United States, which has resulted in, with Sally Fairfax, the just published *State Trust Lands: History, Use, and Sustainable Management*. Current work also includes facilitating collaborative planning among the Forest Service and their constituency groups on the

Colorado Plateau as part of adaptive management strategies. Prior to graduate school he worked for the U.S. Fish & Wildlife Service in New Mexico. He also consulted with the Endangered Species Office of Fish & Wildlife to prepare social and economic analyses of critical habitat designation effects for three species (*Tiaroga cobitis* and *Meda fulgida* [fish], and *Salix arizonica* [Arizona willow]) in New Mexico and Arizona.

TED STRONG, a member of the Yakama Indian Nation, has been executive director of the Columbia River Inter-Tribal Fish Commission (CRITFC) since 1989, serving as a persuasive advocate for the tribes' ecosystem management philosophies and goals which combine contemporary technology and business acumen with the traditional natural values of the Columbia River Indian people. As executive director he implements the consensus policies of CRITFC's parent tribes, the Warm Springs, Yakama, Umatilla, and Nez Perce tribes who founded CRITFC in 1977 as their technical and coordinating agency. He was a tribal representative to the Salmon Summit convened by Senator Mark Hatfield in 1990. Previously Strong owned and managed his own consulting company and negotiated international trade agreements with the People's Republic of China and other Pacific Rim nations. He participated in President Clinton's Forest Summit in April 1993, and was appointed to the President's Council on Sustainable Development. He was given the "Conservationist of the Year" award by organizers of the Salmon Festival, an annual event near Portland.

BARTON H. THOMPSON, JR. has taught environmental, water, and natural resources law at Stanford Law School since 1986. His scholarship focuses on two areas: constitutional protection of economic interests and water policy. He has written major articles on the application of the "takings protection" to judicial actions. He has written a textbook on the *Legal Control of Water Resources* (with Sax and Abrams) and articles on geothermal development and the important role of local water organizations in shaping water policy. In 1991-92 he joined other Stanford faculty in examining the economic impact on California agriculture of reduced water supplies. Current research focuses on water markets, the insights that water law provides on notions of "community," constitutional protection of water and other resource rights, and environmental enforcement. He graduated from Stanford Law and the Stanford Graduate School of Business in 1976, clerked for Chief Justice William H. Rehnquist of the U.S. Supreme Court, and in 1978 joined the law firm of O'Melveny & Myers, where he litigated natural resource, environmental and other cases.

JOHN M. VOLKMAN is General Counsel for the Northwest Power Planning Council. The Council is a policy planning agency for regional energy conservation and Columbia River Basin fish and wildlife recovery. He has been involved in many Columbia River issues in his eleven years at the Council, including the Endangered Species Act salmon process. He has written several articles on Northwest energy, fish and wildlife, Indian law and water issues. In 1990, he was a Visiting Scholar at the Western Governors' Association, where he wrote on sustainable development issues in the Northwest. He graduated from Colorado College in 1969 and the University of Colorado School of Law in 1973.

DOUGLAS P. WHEELER is a long time leader in the field of conservation. He served as Vice President of the World Wildlife Fund in 1990, having served as Executive Vice President and Vice President of the Conservation Foundation from 1987-1990. Previously, he served as Executive Director of the Sierra Club (1985-87), Founder and President of the American Farmland Trust (1980-85), Executive Vice President of the National Trust for Historic Preservation (1977-80), Deputy Assistant Secretary of the Interior (1972-77), and Legislative Counsel and Legislative Attorney for the Department of the Interior (1969-71). He is a graduate of Hamilton College (1963) and Duke University School of Law (1966).

MARY CHRISTINA WOOD is an Associate Professor at the University of Oregon School of Law where she teaches public land law, federal Indian law, wildlife law, and other environmental courses. She graduated in 1987 from Stanford Law School, where she was Vice President of the Stanford Environmental Law Review. She clerked with the U.S. Court of Appeals in Reno (1987-88), then practiced in the environmental/natural resources department of Perkins Coie, a Pacific Northwest law firm. Immediately prior to joining the faculty at the University of Oregon in 1992, she served as Special Counsel with the U.S. Fish & Wildlife Service in the Endangered Species Act ("God Squad") exemption proceedings involving the Northern Spotted Owl. In 1994 she received the University's Ersted Award for Distinguished Teaching. She just completed a trilogy of articles concerning the trust doctrine in federal Indian law and its application to environmental issues faced by native nations. She is currently working on a second trilogy of articles addressing the impact of the Endangered Species Act on tribal wildlife resources. One of the articles focusses specifically on treaty fishing rights in the Columbia River Basin.