

Montana Bioenergy Workshop

Sponsored by:

Governor's Office of Economic Development

Western Governors' Association

Montana Department of Commerce - Energy Promotion and Development Division

Workforce Innovation In Regional Economic Development

Montana Department of Environmental Quality

Montana Department of Natural Resources and Conservation

SPONSOR INFORMATION

Governor's Office of Economic Development

The Governor's Office of Economic Development serves to advise Governor Brian Schweitzer on policy issues related to economic development; lead the state's business recruitment, retention, expansion, and start-up efforts; and serves as the state's primary economic development liaison between federal, state, and local agencies, Montana tribal governments, private nonprofit economic development organizations and the private sector.

We work directly with Local Development Organizations, Certified Regional Development Corporations, and Tribes toward the retention, recruitment, and expansion of businesses. We help structure deals making maximum beneficial use of state programs and resources.

In the process, we also focus on workforce development, infrastructure development, technology development and permitting/regulatory issues. Additional areas of activity include economic development finance and tools, information tools, sector development, and cluster support.

406-444-5634 * PO Box 200801 * Helena, MT 59620-0801 * www.business.mt.gov

Western Governors' Association

The Western Governors' Association (WGA) addresses important policy and governance issues in the West, advances the role of the Western states in the federal system, and strengthens the social and economic fabric of the region.

The WGA develops policy and carries out programs in the areas of natural resources, the environment, human services, economic development, international relations and state governance.

The WGA acts as a center of innovation and promotes shared development of solutions to regional problems.

303-623-9378 * 1600 Broadway, Suite 1700 * Denver, CO 80202 * www.westgov.org

Montana Bioenergy Workshop

Montana Department of Commerce Energy Promotion and Development Division

The Energy Promotion and Development Division (EPDD) was created in 2007 to help implement Governor Schweitzer's commitment to 'clean and green' energy development in Montana. Our state has abundant natural resources that can be harnessed to develop home-grown American energy, using American workers. The EPDD is the front-line for state support for energy development in Montana and our staff is poised to assist in all aspects of potential energy projects, both energy production facilities and the supportive energy delivery infrastructure. We work directly with the Governor, the Governor's Office of Economic Development and other state agencies to help facilitate processes related to permitting, siting, workforce, and financial assistance.

The mission of the EPDD is to help create high quality energy-related jobs and enhance domestic energy security by working directly with private industry, local & regional economic development organizations, as well as with state, federal, and tribal governments to facilitate, promote and develop clean and green energy projects throughout Montana.

406-841-2030 * PO Box 200501 * Helena, MT 59620-0501 * www.commerce.mt.gov/energy

Workforce Innovation in Regional Economic Development

The Workforce Innovation in Regional Economic Development (WIRED) Initiative, launched in November 2005, stresses the critical role talent development plays in creating effective regional economic development strategies.

WIRED goes beyond traditional strategies for worker preparation by bringing together state, local and federal entities; academic institutions (including K-12, community colleges and universities); investment groups; foundations; and business and industry to address the challenges associated with building a globally competitive and prepared workforce.

406-444-4100 * PO Box 1728 * Helena, MT 59624 * www.dli.mt.gov/wired

Montana Department of Environmental Quality

The Montana Department of Environmental Quality's (DEQ) mission is to protect, sustain, and improve a clean and healthful environment to benefit present and future generations. These guiding principles are the legal guidelines, values and core beliefs of the DEQ and guide the choices and decisions made within DEQ to give all employees direction, a philosophy and a basis for everything they do.

We recognize that most environmental regulations and standards are intended to protect the public health by preventing serious injury or illness and that the people of Montana value a quality environment and encourage everyone to share responsibility to protect its quality. We encourage innovative thinking and seek practical, long-term solutions that serve the public interest and minimize the environmental effects of proposed actions. We seek cost-effective ways to minimize impacts to the environment and will identify for decision makers and the public any legal or institutional barriers that keep them from being used.

406-841-5000 * PO Box 200901 * Helena, MT 59620-0901 * www.deq.mt.gov

Montana Bioenergy Workshop

Montana Department of Natural Resources and Conservation

The Montana Department of Natural Resources and Conservation is working for you in ways you've never imagined. From Drinking water to grasslands to protection from fire, DNRC touches the lives of Montanans every day. In my first year as Director of the Department of Natural Resources and Conservation in the Schweitzer Administration, I have come to greatly appreciate our hard-working staff and the important jobs we perform together.

Over the past year, we have concentrated on working together as an agency and working with you, the people of Montana. On the popular St. Mary project, we are partnering with local municipalities, tribes, other agencies, irrigators, and recreationists to reconstruct the 100-year-old canal system. On State School Trust Lands, we consult with communities, such as Whitefish, to find ways to gain revenue for the Trust and meet local needs for open space. For communities all across Montana, we offer grants for water, sewer, and irrigation projects. And, when it comes to wildland fire protection, DNRC provides equipment and training while working closely with local fire departments.

In the coming years, we want to be even stronger partners in providing healthy land and water for Montanans. We will communicate more effectively with you about our activities and programs. Most important, we will listen to you as we find ways to tackle the many resource challenges. DNRC is working with you for a better Montana!

406-444-2074 * PO Box 201601 * Helena, MT 59620-1601 * www.dnrc.mt.gov

Montana Bioenergy Workshop

WORKSHOP AGENDA

Monday, May 11th, 2009

7:30 – 8:00 Registration – Continental Breakfast

8:00 – 8:15 Opening and Introductions

- Pam Inmann – Executive Director, Western Governors' Association
- Tom Kaiserski – Program Manager, Montana Department of Commerce, Energy Promotion and Development Division

8:15 – 8:45 Keynote Address by Governor Brian Schweitzer

Introduction by Pam Inmann – Executive Director, Western Governor's Association

8:45 – 9:15 Opening Session Panel – Current Overview of Biomass/Biofuels Industry

This panel, consisting of directors of various state government agencies, will focus on the current state of the bioenergy industry in Montana and what each agency sees as its role in the future of this renewable resource.

Moderated by Evan Barrett – Chief Business Development Officer, Governor's Office of Economic Development

- Richard Oppen – Director, Montana Department of Environmental Quality
- Mary Sexton – Director, Montana Department Natural Resources & Conservation
- Ron de Yong – Director, Montana Department of Agriculture
- Tony Preite – Director, Montana Department of Commerce
- Keith Kelly – Director, Montana Department of Labor and Industry

9:15 – 9:45 Biomass Utilization – Western Governors' Association Bioenergy Assessment

- Alex Schroeder – Program Director, Transportation Fuels and Nuclear Waste Transportation Program, Western Governors' Association
- Ed Gray – President, Antares Group Incorporated

9:45 – 10:15 Climate Change in Montana's Forests

Montana forest conditions and the role of active forest management in mitigating and adapting to climate change

Introduction by Angela Farr – Biomass Utilization Coordinator, Montana Department of Natural Resources and Conservation

- Steve Running – Regent's Professor of Ecology & Director of the Numerical Terradynamics Simulation Group, University of Montana College of Forestry and Conservation.

10:15 – 10:45 Break with refreshments

Montana Bioenergy Workshop

10:45 – 12:00 Forest Biomass Panel

Here is the problem and the opportunity! We have overstocked forests, wildfire danger, beetle kill, communities and resources at risk. We have this much biomass. We can do this sustainably and reduce energy consumption by utilizing wood for buildings and energy.

Moderated by Angela Farr – Biomass Utilization Coordinator, Montana Department of Natural Resources and Conservation

- Bob Harrington – State Forester, Montana Department of Natural Resources & Conservation
- Todd Morgan – Director of Forest Industry Research, University of Montana, Bureau of Business and Economic Research
- Deborah Page-Dumroese – PhD., Supervisory Research Soil Scientist, Rocky Mountain Research Station
- Bruce Lippke – Professor and Director-Rural Technology Initiative, College of Forest Resources, University of Washington; President, Consortium of Research on Renewable Industrial Materials

12:00 – 1:00 Networking lunch

1:00 – 1:30 Biomass Aggregation/Collection Technology

One of the biggest challenges in biomass utilization is the cost of collecting biomass, processing into a usable form, and transporting it to the end user. This panel will describe traditional methods and current research into improving the efficiency and lowering the costs of biomass collection, processing and transportation.

Moderated by Craig Rawlings – Forest Business Consulting Manager, Montana Community Development Corporation

- Beth Dodson, PE, PhD – Assistant Professor, Forest Management, College of Forestry and Conservation, University of Montana
- D. Brad Blackwelder – Senior Research Scientist, Biological Sciences, Idaho National Laboratory

1:30 – 2:45 Conversion Technology

This panel will provide an overview of ways to use biomass which will include steam, cellulosic ethanol, combined, heat and power (CHP), steam, burn and biochar. In addition, Don Stevens, Pacific Northwest National Lab, will discuss emerging biofuels and biopower technologies and provide an overview of the \$1 billion dollar DOE Biomass stimulus monies available for potential Montana projects.

Moderated by Brian Spangler – Business & Community Assistance Program Manager, Montana Department of Environmental Quality

- Don Stevens – Senior Program Manager, Pacific Northwest National Lab, Energy Science and Technology Directorate
- Gloria Flora – Executive Director, Sustainable Obtainable Solutions
- Dave Atkins – Program Manager, Fuels for Schools and Beyond Initiative, USFS Northern Region
- Christine Johnson – Business Development Director, Johnson Brothers Contracting/Eureka Pellet Mills

2:45 – 3:00 Break with refreshments

Montana Bioenergy Workshop

3:00 – 4:30 Forest Access and Timber Availability

Perspectives from Industry, Conservationists and the Forest Service on the current situation with respect to managing federal forests in Montana present information on efforts such as the Blackfoot Clearwater Partnership, Beaverhead-Deerlodge Partnership, and the Montana Forest Restoration Committee, regarding how parties are collectively working together to get past the gridlock in timber availability.

Moderated by Mary Sexton – Director, Montana Department of Natural Resources & Conservation

- Marnie Criley – Executive Director, Restore Montana
- Land Tawney – Senior Manager, Sportsmen Leadership, Northern Rockies Regional Center of the National Wildlife Federation
- Sherm Anderson – Owner of Sun Mountain Lumber, Inc.
- Gordy Sanders – Resource Manager, Pyramid Mountain Lumber, Inc.
- Bruce Fox – Director, Renewable Resources. Northern Region USFS.

4:30 – 5:00 The Federal Outlook for Biofuels – Rural Development Perspective

Introduction by Ron de Yong – Director, Montana Department of Agriculture

- Bill Hagy, Acting Deputy Under Secretary, USDA Rural Development, U.S. Department of Agriculture

5:00 – 5:30 The Federal Outlook for Biofuels – Biomass Energy Perspective

Introduction by Ron de Yong – Director, Montana Department of Agriculture

- Valri Lightner, Acting Program Manager, Office of the Biomass Program, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

5:30 – 6:00 Technology at Work

Introduction by Tom Kaiserski – Program Manager, Montana Department of Commerce, Energy Promotion and Development Division

- Paul Williamson – Director, University of Montana's Alternative Energy Technologies
- Brian Kerns – Chief Engineer, University of Montana's Alternative Energy Technologies

Day One wrap-up and Announcements adjourn to display by Paul Williamson University of Montana, demonstration of Biomax.

Montana Bioenergy Workshop

Tuesday, May 12th, 2009

7:00 – 8:00 Continental Breakfast

8:00 – 8:15 Introduction and Opening Remarks

Day One Overview

Brian Spangler – Business & Community Assistance Program Manager, Montana Department of Environmental Quality

8:15 – 9:30 Industry Perspective on Effective Policies

A successful energy project requires state and federal policies designed to encourage economic development and Montana has worked hard to create a business friendly environment. This panel will focus on Montana's effective policies and also highlight best case practices from other energy producing states.

Moderated by Tom Kaiserski – Program Manager, Montana Department of Commerce, Energy Promotion and Development Division

- Cliff Bradley – Founding Partner, Montana Microbial Products
- Bill Carlson – Principal, Carlson Small Power consultants
- Mel Murphy – Projects General Manager, Power Plant Management Services
- David C. Naccarato, MA – Business Development Manager, McKinstry Company

9:30 – 10:45 Workforce for the Future

Successful energy production requires highly trained workers and brings high paying jobs to areas of economic dislocation. This panel will discuss the future of energy education and workforce training to meet the demands on an emerging industry.

Moderated by Pat Wise – Economic Development Specialist, Governor's Office of Economic Development

- Dr. Brad Eldredge – Director, Institutional Research, Office of the Commissioner of Higher Education, Montana University System
- Bob Johnson – Political Chair, United Steelworkers International, Local 885
- Beth Berlin – Montana Representative, Climate Solutions
- Adam De Yong – WIRED Project Director, Montana Department of Labor and Industry

10:45 – 11:00 Break with refreshments

How do we encourage the development of bioenergy?

Three 45-minute facilitated sessions will be held to identify priority issues and actions for the Governor's office and state agencies to consider when developing bioenergy policy. Your name badge will notate a session group to which you are assigned. With room limitation we ask that you please honor the assigned session as your participation is important in each of the three sessions.

11:00 – 11:45 Session A – How do we encourage the development of bioenergy?

- Developing Biomass Delivery Infrastructure
- Supply Opportunities and Challenges
- Workforce Opportunities and Challenges

Montana Bioenergy Workshop

11:45 – 12:30 Session B – How do we encourage the development of bioenergy?

- Developing Biomass Delivery Infrastructure
- Supply Opportunities and Challenges
- Workforce Opportunities and Challenges

12:30 – 1:30 Lunch and Keynote Address – The Federal Renewable Fuel Standard

Paul Argyropoulos – Senior Policy Advisor, Office of Transportation and Air Quality, Environmental Protection Agency

1:30 – 2:15 Session C – How do we encourage the development of bioenergy?

- Developing Biomass Delivery Infrastructure
- Supply Opportunities and Challenges
- Workforce Opportunities and Challenges

2:15 – 3:00 Report on Facilitated Sessions and Next Steps

The results and recommendations of each of the day's three sessions will be reported back to the entire audience to identify priority actions that can be taken to promote the development of bioenergy.

3:00 – 5:00 Tour of Roseburg

Roseburg is a solid Pacific Northwest company that has made recent substantial investments, many of them environmental in nature. They have zero waste and state of the art air emissions controls and a biodigester. They are working with the landfill to capture methane and use it in their boilers.

Appropriate dress for industrial site required; accommodations limited to the first 50 participants to sign up at the registration table on Monday morning.

Montana Bioenergy Workshop

PRESENTER BIOGRAPHIES

Sherm Anderson

Owner, Sun Mountain Lumber, Inc.

Sherm Anderson owns Sun Mountain Lumber Inc. and formerly served in as a Senator in the Montana State Legislature. He also purchased the Louisiana-Pacific stud mill and finger joint plant in Deer Lodge, MT. Mr. Anderson also is a member of the original technical committee that formulated the Best Management Practices for the timber industry, which are still in effect. He has also served and continues to be active in many civic and business organizations including the Montana Logging Association, American Loggers Council, Montana Wood Products Association, and Montana Auto Museum.

Paul Argyropoulos

Senior Policy Advisor, Transportation and Air Quality, Environmental Protection Agency

Mr. Argyropoulos is responsible for providing advice and analysis to the Office Director on a broad range of transportation program issues with a focus on fuels. He chaired EPA's intra agency work group for the first renewable fuels standard program and currently chairs the workgroup responsible for developing the new renewable fuels standard rule required under the Energy Independence and Security Act of 2007.

Prior to his current position, Mr. Argyropoulos spent 7 years with Hart Downstream Energy Services serving in a number of positions, including as Executive Director of the *International Fuel Quality Center* and Director of US Federal Affairs. Before joining Hart, he spent two years with the American Petroleum Institute (API), where he provided regulatory and policy coordination among API Fuels Committees and related workgroups on national and state fuel regulatory and policy issues.

David Atkins

USFS Northern Region, Woody Biomass Energy Technology

Mr. Atkins works for the State and Private Forestry branch of the US Forest Service. His area of emphasis is in utilization of woody biomass. He is the program manager of the Fuels for Schools and Beyond initiative, which encourages the use of small-scale biomass heating systems, in the western regions of the Forest Service. He has a B.S. in Forest Science from Humboldt State University - 1979 and an M.S. in Forest Ecology from the University of Montana - 1996, where he did a thesis on definitions of Old Growth forests. He has worked as a certified silviculturist, forest ecologist, and regional forest health monitoring coordinator, regional pesticide coordinator, among other positions in his career.

Evan Barrett

Chief Business Development Officer, Governor's Office of Economic Development

Barrett previously served as Executive Director of the Butte Local Development Corporation, a successful economic development organization that has the largest revolving loan fund program in the state. He helped create and retain thousands of jobs and participated in some of Montana's largest industrial recruitment efforts. His activities as Legislative and Public Policy Chair for the Montana Economic Developers Association put him in the forefront of economic development policy in Montana over the last 11 years. Barrett is a graduate of Red Lodge High School. He attended Montana State University, St. John's University where he received his bachelor's degree in government and the University of Montana Graduate School in political science. Barrett and his wife Gail live on the Butte hill with their two children. His two older daughters and two grandchildren live in Las Vegas.

Montana Bioenergy Workshop

Beth Berlin

Montana Representative, Climate Solutions

Beth Berlin has over 20 years experience addressing energy, environmental, socioeconomic, and community development issues for federal, state, tribal and local governments, for profit and nonprofit organizations. Ms. Berlin currently works as the Montana representative for Climate Solutions, a northwest nonprofit dedicated to accelerating practical and profitable solutions to global warming by galvanizing leadership, growing investment and bridging divides. Prior to joining Climate Solutions, Ms. Berlin served as the Program Director for Women's Voices for the Earth, where she oversaw various environmental justice campaigns, as the Brownfield Coordinator for the City of Missoula, as the Coordinator for the City of Missoula's nationally recognized transportation options program, and as the Development Associate for the NW Energy Coalition. She also served as an environmental consultant on socioeconomic and tribal issues for the Yucca Mountain high-level radioactive waste repository project. Ms. Berlin is also on a number of local advisory panels and boards in Missoula that address climate change and air quality and she is also the co-owner of the Sports Exchange, a local outdoor store in Missoula for 25 years.

D. Brad Blackwelder

Senior Research Scientist, Biological Sciences, Idaho National Laboratory

Brad Blackwelder is a Principle Investigator at the Idaho National Laboratory Research Center in Idaho Falls Idaho where he has worked for the last ten years. He holds a B.S. in Biology from the State University of New York Albany and an M.S. in Environmental Science and Management from Idaho State University. His current research interests include optimized harvest, collection, preprocessing and storage of woody and agricultural biomass. Mr. Blackwelder is also involved in developing a uniform format design for the bioenergy industry. He holds patents and has published in various areas of environmental science. Prior to his current career he served in the United States Marine Corps for nine years.

Cliff Bradley

Founding Partner, Montana Microbial Products, LLC

MMP develops and markets applied microbiology solutions for agriculture and bioprocess industries. The company uses proprietary strain selection techniques and innovative culture technology using fungi to produce enzymes and bioenhanced agricultural materials. Mr. Bradley co-directs the company's current projects in microbial enhancement of plant derived protein for aquaculture feeds, biopesticide development, and enzymatic hydrolysis of starch and cellulosic feed stocks for ethanol production.

Mr. Bradley has more than 25 years experience in bio-product development and agriculture. He has a B.Sc. Honours, in Molecular Biology from the University of Adelaide, Adelaide South Australia and B.Sc. in Biochemistry, from the University of Idaho, Moscow Idaho

Adam de Yong

Director, Workforce Innovation in Regional Economic Development (WIRED), Montana Department of Labor and Industry

Adam de Yong graduated from the University of Montana's School of Business Administration in 2003, with an emphasis in Marketing, Management, and International Business. He then went to work on a grant through the UM SOBA that focused on commercializing NASA technology. During this time he also worked as an independent consultant for a small group of angel investors looking at starting a small venture fund in the inland northwest. In January of 2005 Mr. de Yong was hired by Governor Brian Schweitzer to work in the Office of Economic Development, as an economic development specialist. He worked in this office for 2 years before becoming the Director of the Governor's WIRED, Montana's Agro-Energy Plan, initiative. Adam currently lives in Helena with his wife Kiley, son Kaden, and daughter Avery.

Montana Bioenergy Workshop

Ron de Yong

Director, Montana Department of Agriculture

Ron de Yong was appointed as the new Director of the Department of Agriculture. Mr. de Yong owns and operates a 320 acre family farm in Kalispell and teaches agriculture policy and economics at Cal Poly State University. He has been an economist for National Farmers Union, served as a Montana State Committee Member for the USDA Farm Service Agency and has been a State Director for Montana Farmers Union. Mr. de Yong has a bachelor's degree in agricultural science and philosophy from Montana State University and a master's degree in economics from the University of Montana. He is married with three children.

Elizabeth Dodson, PE, PhD

Assistant Professor, Forest Management, The University of Montana

Dr. Dodson is a forester and professional engineer teaching forest operations and conducting research in the area of biomass harvesting, transportation, and planning at the University of Montana. Recent projects include the use of roll-off containers for the harvest and transport of woody biomass.

Brad Eldredge, PhD

Director of Institutional Research, Office of the Commissioner of Higher Education, Montana University System

Dr. Eldredge also manages the states Carl Perkins Grant, which provides federal dollars to support career and technical education at the secondary and post-secondary level. He grew up in Helena and graduated from Helena High School. He has a Bachelor's Degree in Economics from Brigham Young University and a PhD in Economic Geography from The State University of New York at Buffalo. Prior to working at the University System, he was Chief Economist for the Montana Department of Labor and Industry. Mr. Eldredge enjoys spending time with his wife and four children, aged 9 to 10 months.

Angela Farr

Biomass Utilization Coordinator, Montana Dept. of Natural Resources and Conservation

Ms. Farr administers Montana's Fuels for Schools and Beyond program, which promotes the use of waste wood for heat in schools and other facilities. The program has 10 operating projects, and one in design, throughout the state, from small-scale, pellet-fired systems to a 13 million BTU boiler system for the University of Montana-Western campus in Dillon. She grew up in Missoula and graduated magna cum laude from Whitman College in Walla Walla, Washington. She earned an M.S. in Environmental Studies from the University of Montana. Her diverse career has included work on several National Forests, in the US Fish and Wildlife Service, and in State & Private Forestry in the Northern and Intermountain Regions.

Gloria Flora

Executive Director, Sustainable Obtainable Solutions

Ms. Flora directs Sustainable Obtainable Solutions, a nonprofit dedicated to the sustainability of public lands and the plant, animal and human communities that depend on them. As a former supervisor in the U.S. Forest Service, Ms. Flora became nationally known for principled leadership in ecosystem conservation. She founded SOS in 2001 and focuses on public policy and actions related to climate change, sustaining biodiversity and regaining respectful interrelationships with landscapes. She is currently Project Co-coordinator for the State of Alaska's Climate Change Strategy and a leader in biochar promotion as part of climate change mitigation and forest restoration.

Montana Bioenergy Workshop

Bruce Fox

Director of Renewable Resource Management, Northern Region, US Forest Service

Mr. Fox was raised on a ranch in western Idaho. He graduated from the University of Idaho in 1978, with a BS in Rangeland Resources. He served in several positions on the Boise National Forest and Toiyabe National Forest from 1979-1984. From 1984-1989 he served as District Ranger on two different ranger districts on the Targhee National Forest. In 1989, he became the Regional Range Program Leader for the Northern Region in Missoula, Montana. In March of 2005, he was selected as the Director of Forest and Rangeland Management and currently serves as the Director for Renewable Resource Management for the Northern Region.

Mr. Fox is married, has three children and several other strays that he and his wife Barbara still claim. Bruce is an avid hunter and horseman and enjoys reminiscing about his hobbies that he used to have time for.

Tom France

Regional Executive Director and Counsel, National Wildlife Federation, Northern Rockies Regional Center

Tom France received his B.A. in History/Political Science and his Juris Doctorate from The University of Montana. In 1981 Mr. France accepted a position with the NWF and is currently Regional Executive Director and Counsel of the Northern Rockies office. He also supervises the natural resource clinic program, run in cooperation with the University of Montana School of Law. Mr. France has participated on the Advisory Committee to the Congressional Office of Technology Assessment on coal leasing and the Hydro Assessment Steering Committee of the Northwest Power Planning Council. He is a past member of the Montana Environmental Quality Council and past-Chairman of the Missoula Solid Waste Task Force. Mr. France also served on the Missoula Mayor's Roundtable the Governor's Yellowstone Grizzly Bear roundtable. He is a past Chairman of the Board for the High Country News Foundation and is currently Chairman of the Board for the Clark Fork Coalition. He has been involved in campaigns to restore wolves and grizzlies in the northern Rockies, reform hard rock mining in the West, and promote effective private lands conservation through the Farm Bill. He was lead counsel in *Montana Environmental Information Center v. Dept. of Environmental Quality*, which established a fundamental right to a clean and healthful environment for Montana residents and *National Wildlife Federation v. Dept. of Environmental Quality*, which required the full reclamation of hard rock mines, including open pits. He also really likes to coach youth hockey.

Edward E. Gray, P.E.

Owner and President, ANTARES Group Inc.

Edward E. Gray, P.E. is an owner and the president of ANTARES, a consulting engineering firm specializing in advanced energy technologies for industry, power production and transportation. Mr. Gray served as the co-chair of the biomass power supply working group under the Clean Energy Development Advisory Council for the Western Governors. He has had an active role in the development and implementation of biomass and solar energy projects for power generation for 25 years. Mr. Gray was actively involved in efforts to examine the potential for the National Bioenergy Initiative involving the cooperation of the EPA, Department of Energy and Department of Agriculture. As part of the effort he led the development of the Agripower model designed to examine a wide array of impacts for deployment of Biomass Power systems. In particular rural economic benefits and national environmental benefits were forecast for a variety of deployment scenarios. Mr. Gray also led a team of experts (EPRI, Princeton, Westinghouse, and Colorado School of Mines) to prepare a competitive assessment of biomass power generation technologies for the Office of Science and Technology Policy.

Montana Bioenergy Workshop

Bill Hagy

Acting Deputy Under Secretary, USDA Rural Development

Mr. Hagy oversees 6,000 USDA employees in all 50 states, the Virgin Islands, Puerto Rico, and the Western Pacific Territories. He is responsible for all USDA Rural Development utilities, housing, community facilities, business programs, telecommunications, broadband and renewable energy initiatives.

Mr. Hagy has received extensive financial management training and is a recipient of former Vice President Gore's National Performance Review Hammer Award for his efforts in streamlining the Business and Industry Guaranteed Loan Program regulation, which reduced the number of application forms and automated the application process. Mr. Hagy was the recipient of the Secretary of Agriculture Honor Award in fiscal years 2003 and 2007 for Superior Service to the Department in the delivery of Business Programs. In addition, Hagy is the recipient of the 2007 National Rural Economic Developers Association President's Award for recognition of his dedication, time, talent and expertise in support of Rural Development. He holds a Bachelor of Science Degree in Agricultural Engineering from Virginia Tech.

Bob Harrington

Montana State Forester

Bob Harrington's academic travels have taken him from the Bonner Springs, Kansas public school system, to Kansas State University (where he realized he wanted to be a forester), to the University of Montana, where he received a Bachelor of Science in Forest Resource Management in 1983. His work travels have take him from the Clearwater Mountains of North Idaho with the U.S. Forest Service to the areas surrounding Missoula, Whitefish, Helena, Bozeman, and Billings, Montana, where he has worked for the Montana Department of Natural Resources for the past 20 years. His desire to experience a wartime evacuation from foreign lands led him to Tanzania in the U.S. Peace Corps prior to the Gulf War. His personal interests have led him to travels in Nepal, Ecuador, England, Holland, and most importantly China, where he found two wonderful daughters to keep he and his wife tired and happy. He has been the Montana State Forester since 2003.

Pam Inmann

Executive Director, Western Governors' Association

Pam Inmann took over the reins at WGA in 2004. She previously worked as the District Director in State Government Affairs at Altria Corporate Services -- the parent company of Philip Morris USA and Kraft Foods, Inc. and formerly of Miller Brewing Company. Prior to joining Altria, Pam worked for ten years for the Rocky Mountain Oil and Gas Association. At RMOGA she served as Director of Special Projects and Director of the Committee on Oil Shale. Her first job in natural resource development was as a public affairs manager for a new uranium mine in central Colorado. Ms. Inmann is a graduate of the University of Colorado in Boulder in 1975 with a Bachelor of Arts degree in Political Science. She is also an avid golfer.

Bob Johnson

Political Chair, United Steelworkers International, Local 885

Bob Johnson has been an active union member and officer for 30 years. He has been an Industrial Millwright for 25 years and currently employed at Smurfit Stone. His current position is Shift Millwright Leadman and Maintenance troubleshooter and he has been employed in the forest products industry since 1970. Mr. Johnson is an active co-author of USW forest policy for the International Union. He has also been an activist and Lobbyist for the forest products industry for many years including Political Director and Lobbyist for Montana AFL-CIO in the 2009 State Legislature.

Montana Bioenergy Workshop

Tom Kaiserski

Program Manager, Montana Dept. of Commerce, Energy Promotion & Development Division

Tom Kaiserski worked as a Senior Economic Development Specialist with Governor Schweitzer's Office of Economic Development where he concentrated on energy development. Mr. Kaiserski has traveled around the region presenting information on energy policy which promotes developing of all of Montana's energy opportunities. This includes emphasis on developing wind, bio-fuels, coal, oil and gas energy sources that eastern Montana has in abundant supply which is one of the keys to national energy independence and revitalizing the economy of eastern Montana.

Mr. Kaiserski grew up in Los Angeles and has a bachelor's degree in earth science from Montana State University in Bozeman. Prior to coming on board with Governor Schweitzer's office in January 2005 he worked for 7 years as the Economic Development Coordinator for the Beartooth RC&D, a regional economic and community development organization that serves a five county region around Billings, Montana. Mr. Kaiserski also worked as a community planner in Montana for over 10 years. Mr. Kaiserski is married to wife Teresa and has four children ranging in ages from 10 to 20.

Keith Kelly

Commissioner, Montana Department of Labor and Industry

Keith Kelly previously served as a Division Administrator at the Montana Department of Labor and Industry. Kelly was appointed by President Clinton as Administrator of the Farm Service Agency in Washington D.C. He was the Director of the Montana Department of Agriculture under former Governor Ted Schwinden, served as the Deputy Secretary of State under former Secretary Mike Cooney and was the Director of the Arizona Department of Agriculture for 7 years under a Republican Governor. Kelly served with the Army 101st Airborne Division in Vietnam and was awarded the Bronze Star. He graduated from Red Lodge High School, and received his bachelor's degree in Ag Business and his master's degree in Economics both at Montana State University. Kelly is married with 4 children and 4 grandchildren.

Brian Kerns, P.E.

Researcher, Applied Alternative Energy Technologies, The University of Montana
Brian Kerns has managed projects in wind, solar PV, and hydrogen. Mr. Kerns is currently conducting a biomass gasification demonstration project in conjunction with the U.S. Forest Service. He is a registered professional engineer who's worked in the energy industry for over 25 years. He received his Masters of Science degree from Northwestern University and his BS from Penn State.

Bruce Lippke

Professor and Director, Rural Technology Initiative, College of Forest Resources, University of Washington

Bruce Lippke is also the current President of a consortium of 15 university and professional research organizations known as CORRIM (the Consortium for Research on Renewable Industrial Materials). CORRIM is developing environmental performance measures for every aspect of wood materials and their uses from forest regeneration, harvest, processing for construction products or fuels, construction, building use and disposal.

Mr. Lippke has over 30 years of experience in economic forecasting, industry analysis, environmental impact assessment, market research and management consulting. His recent research has been focused on the sustainable management of forests for economic, environmental and social values, characterized by market and non-market value systems.

Montana Bioenergy Workshop

Todd Morgan, CF

Research Assistant Professor and Director, Forest Industry Research Program, University of Montana's Bureau of Business and Economic Research

Todd Morgan is a Research Assistant Professor and Director of the Forest Industry Research Program at The University of Montana's Bureau of Business and Economic Research. The program focuses on timber harvest and forest products industry trends throughout the western United States. Mr. Morgan has an MS in Forestry from the University of Montana, and a BA in Philosophy and BS in Forest Science from Penn State University. He is an active member of the Society of American Foresters, a past chair of the SAF Ethics Committee and a past chair of the SAF Philosophy and History Working Group.

Mel Murphy

Projects General Manager, Power Plant Management Services, LLC

Mel Murphy has 33 years of power generation experience. In Mr. Murphy's current position he is responsible for day to day management of operating power plant projects owned under the Energy Investors Fund family of funds, including oversight of a third party O&M provider. Technologies utilized include natural gas (including Dry Low NO_x) and naphtha fired Combustion Turbine and Combined Cycle facilities, and Biomass Fired Fixed Grate Boilers.

Mr. Murphy recently served as the Vice President and General Manager of Quixx Power Services in Amarillo, TX. Facilities operated and maintained consisted of power generation and steam generation facilities, with a combined electric generation capacity of approximately 520 MW and included union and non-union labor forces. Technologies include natural gas and dual fuel Dry Low NO_x Combustion Turbine and Combined Cycle facilities, Biomass Fired Circulating Fluidized Bed Boiler, and Natural Gas Fired Boilers. Other roles include Plant Manager at a 34.5 MW Combined Cycle Cogeneration Plant in California, Plant Operator at a 25 MW Biomass Fired Circulating Fluidized Bed Boiler in California, and a 15 year career in the US Navy, serving on-board four different nuclear powered submarines.

Richard Oppen

Director, Montana Department of Environmental Quality

Oppen previously served as Executive Director of the Missouri River Basin Association, a commission comprised of governor-appointed representatives of eight states and the Indian tribes in the Missouri River Basin. The commission is based in Lewistown, Montana. Prior to that he worked as the Executive Director for the Missoula-based Northern Lights Institute. Mr. Oppen received his bachelor's degree in agricultural sciences from Oklahoma State University and his master's degree in soil science in 1979 from Montana State University. His research emphasis was in mine reclamation. He is married to Sally Mueller; they have one son, Isaac.

Debbie Page-Dumroese

Supervisory Research Soil Scientist, Rocky Mountain Research Station.

Debbie Page-Dumroese is located in Moscow, ID where she has been doing long-term soil productivity research for the last 25 years. She is involved in the North American Long-Term Soil Productivity study, has study sites worldwide to help determine the impacts of forest management on below-ground processes, and has just completed a standardized forest soil disturbance monitoring protocol which can be used to describe pre- and post-harvest soil conditions. In addition, Ms. Page-Dumroese is working on evaluating the impacts of intensive biomass harvesting impacts on soil chemical, physical, and biological properties and the consequences of adding bio-char to forest soils. Last year she received the National Field Soil Scientist Award from the USDA Forest Service.

Montana Bioenergy Workshop

Craig Rawlings

Forest Business Consulting Manager, Montana Community Development Corporation

Craig Rawlings is an entrepreneur whose family spent years in the timber industry. He has over 30 years experience in business ownership. Working for MCDC, Craig establishes connections with wood products business owners. His approach is to look for even the smallest way to connect one business to another, or to find a research or financing resource that could move forest businesses forward just a little, working the “middle ground” between business, research, new markets and the US Forest Service. In this way, and by focusing on projects with viable business potential at commercial scale, Craig and his partners have been successful.

Steven W. Running, PhD

University Regents Professor of Ecology, University of Montana

Dr. Steven W. Running is trained as a terrestrial ecologist, receiving B.S. (1972) and M.S. (1973) degrees from Oregon State University, and a Ph.D. (1979) in Forest Ecology from Colorado State University. He has been with the University of Montana, Missoula since 1979. His primary research interest is the development of global and regional ecosystem biogeochemical models by integration of remote sensing with climatology and terrestrial ecology. Dr. Running is a Team Member for the NASA Earth Observing System, Moderate Resolution Imaging Spectroradiometer, and he is responsible for the EOS global terrestrial net primary production and evaporative index datasets. He has published over 240 scientific articles. Dr. Running has recently served on the standing Committee for Earth Studies of the National Research Council and on the federal Interagency Carbon Cycle Science Committee. He is a Co-Chair of the National Center for Atmospheric Research Community Climate System Model Land Working Group, a Member of the International Geosphere-Biosphere Program Executive Committee, and the World Climate Research Program, Global Terrestrial Observing System. Dr. Running shared the Nobel Peace Prize in 2007 as a chapter Lead Author for the 4th Assessment of the Intergovernmental Panel on Climate Change. Dr. Running is an elected Fellow of the American Geophysical Union and is designated a Highly Cited Researcher by the Institute for Scientific Information.

Gordy Sanders

Resource Manager, Pyramid Mountain Lumber, Inc.

Gordy Sanders is a Society of American Foresters (SAF) Certified Forester. He received his B.S. in Forest and Range Management at the University of Minnesota in 1971. From 1972-1993, Mr. Sanders worked as the Procurement Manager, the District Land Manager, and Forester for Champion International Corporation. While working at Champion, Mr. Sanders obtained his Masters in Forest and Range Management from Washington State University. After Champion sold in 1993, he worked for Plum Creek Timber Company where he served as Senior Forester and Manager of Log Planning and Procurement. Mr. Sanders has been with Pyramid Mountain Lumber, Inc. since 1996.

Over the years, Mr. Sanders has been actively involved in the Society of American Foresters. He is currently the Chair of the Montana SAF Policy Committee, past member of the National SAF Committee on Forest Policy, and has served as the Montana State Chair. He is an SAF Fellow and has been recognized as the Outstanding SAF Citizen and Forester of the Year.

In addition to his involvement with SAF, Mr. Sanders has served as Program Manager of the National Tree Farm Convention. He has also served as an NWCG Instructor in Prescribed Fire Management. He is a member of both The University of Montana College of Forestry and Conservation Advisory Board and the UM President's Advisory Council. Mr. Sanders was also the coordinator for the Western Governor's Association, Conference Montana Field Day and serves as the team leader/auditor for Forestry Best Management Practices Audits in Montana. He currently Co-Chairs the Steering Committee of the Montana Forest Restoration Committee.

Montana Bioenergy Workshop

Alex Schroeder

Program Director, Nuclear Waste, Transportation Fuels and Energy, Western Governors' Assoc.

Alex Schroeder joined the Western Governors' Association (WGA) in 2005. Prior to joining WGA, he worked for a consulting firm where he assisted in financial analyses and strategic planning for electric utilities. Mr. Schroeder's background includes experience in economic policy development and analysis, industrial process design, and applied field research. He holds an M.S. in Engineering and Technology Management from the Colorado School of Mines and a B.S. in General Engineering from the University of Illinois. He enjoys skiing, biking, and is an avid Denver Broncos fan.

Governor Brian Schweitzer

Governor, State of Montana

Brian Schweitzer is a farmer and rancher who held no elected office prior to January, 2005, when he was sworn in as the first Democratic Governor to serve Montana in 20 years. The grandson of Montana homesteaders, he grew up on his folks' cattle ranch in the Judith Basin. Governor Schweitzer went on to earn a Bachelor of Science degree in international agronomy from Colorado State University, and later earned a Master of Science degree in soil science from Montana State University.

Governor Schweitzer brings a unique global perspective to his job as Governor. As a young agronomist with an advanced degree in soil sciences from Montana State University, he worked overseas for a decade on agricultural projects in the developing world. In Africa, Asia, Europe, and South America, and during seven years in Saudi Arabia, he oversaw large-scale irrigation projects and the construction of some of the world's largest dairies.

The Schweitzers returned to Montana in 1986 to raise a family and begin ranching, and Governor Schweitzer became active in farm and rural policy. In 1993 he was appointed by the Secretary of Agriculture to serve on the USDA Farm Service Agency state committee for Montana, and later served on the National Drought Task Force and the Montana Rural Development partnership Board. He and his wife Nancy have raised three children and a now-famous border collie, Jag.

Mary Sexton

Director, Montana Department of Natural Resources and Conservation

Mary Sexton has a long history of public service; she has most recently been a County Commissioner in Teton County. Additionally, she is involved with her family's farm/ranch operation and the Stage Stop Inn in Choteau. Ms. Sexton worked as the Administrator and Education Director for the Nature Conservancy's Pine Butte Preserve and spent over ten years teaching high school English and German in Hamilton. She has been a member of the Choteau Chamber of Commerce, Governor's Council on Public Wildlife/Private Lands, BLM Resource Advisory Council and State of Montana Shared Leadership Committee. Ms. Sexton attended CM Russell High School in Great Falls, received her bachelor's degree from Stanford University and her master's degree from the University of Montana. She is married to Rich Clough and has one daughter, Maggie.

Brian Spangler

Business and Community Assistance Program Manager, Energy and Pollution Prevention Bureau, Montana Department of Environmental Quality

Brian Spangler is a graduate of the University of Idaho with a Bachelor of Science in Business Management and was an U.S. Army Officer (ROTC) distinguished Military Graduate. Brian has over 20 years of experience in sales, marketing, operations and management with the US Army as an officer and an employee of a Fortune 100 petroleum company before being employed at the DEQ. He has received numerous awards from the Army and Corporate America. In September 2004, he received the "Top Performer" award at the DEQ and the Governor's "Performance Excellence" award for his efforts in business development of recycling.

Montana Bioenergy Workshop

Don Stevens

Senior Program Manager, Energy Directorate, Pacific Northwest National Laboratory

Dr. Stevens has over 25 years of RD&D experience in the area of biomass energy systems. In his current position, he is responsible for developing programs with DOE and industry to convert biomass resources to chemicals, fuels and electricity. PNNL's work in this area focuses on the use of thermal catalysis and biotechnology to create fuels and higher value products from biomass residues. The biofuels help the nation meet its goals of reducing imports of petroleum, and the bio-based products are important in providing economic return in the integrated biorefineries of the future. Dr. Stevens is also involved in programs on biofuels sponsored the International Energy Agency and serves as a Director for the Biomass Energy Research Association.

Over a 25-year period, he has conducted research and performed analysis on a variety of bioenergy systems. Dr. Stevens is the author or co-author of numerous publications and has been an editor of three books on biomass energy. He received his Ph.D. Degree in physical chemistry from University of Utah in 1976 and conducted postdoctoral work on biological membranes at the University of Illinois Champaign-Urbana.

Dr. R. Paul Williamson

Dean, Hydrogen and Alternative Energy Research and Development, The University of Montana

Dr. Paul Williamson directs the activities of the University of Montana's Alternative Energy Technologies (AET) working with hydrogen, wind, solar, magnetic levitation, conservation and biomass. He is a South Dakota native, attended the University of South Dakota and earned his doctorate from West Virginia University in Technology Education. He has worked in sustainable and alternative energy for much of his career. He presently works with the U.S. Departments of Transportation, Energy, Agriculture and Defense to foster national alternative energy developments in Hydrogen Safety Training, Hydrogen Membrane Technology, Hydrogen-powered, maglev, Public Rapid Transit, biomass to energy and fuels and other related technologies.