FLOW 2008
SCIENCE POLICY PUBLIC DIALOGUE

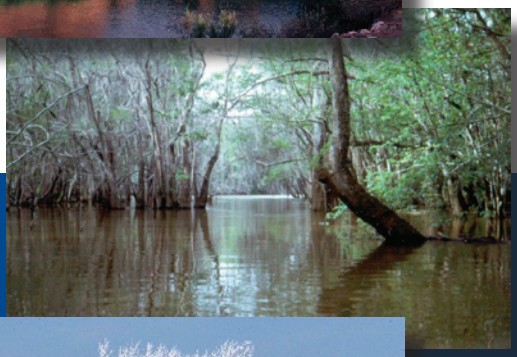
Interdisciplinary Solutions to Instream Flow Problems

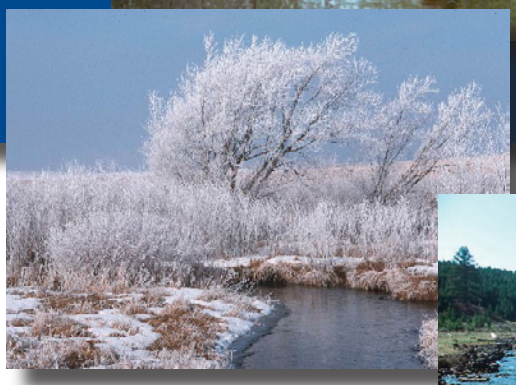
El Tropicano Riverwalk Hotel
San Antonio, Texas
October 7-9, 2008

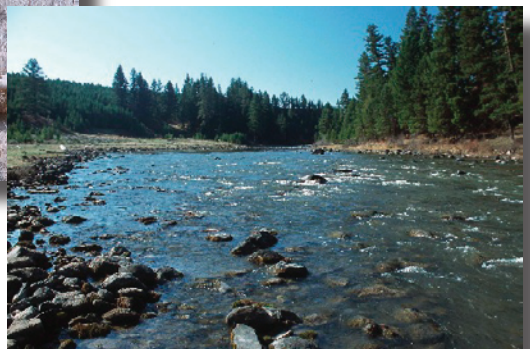
Welcome!

A one-of-a-kind conference:

- Expert speakers
- Interactive sessions
- Collaborative negotiation training
- State-of-the-art panel discussion
- Pre-conference Workshops
- Case studies
- Poster Session
- Exhibits
- Historic San Antonio







***FLOW 2008* is endorsed by:**

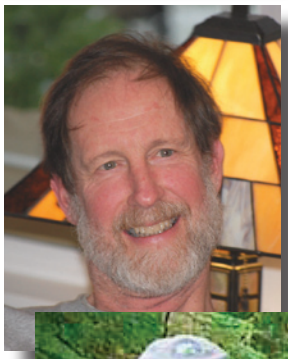
- American Bar Association, Section of Environment, Energy and Resources
- American Water Resources Association
- Canadian Water Resources Association

INSTREAM FLOW COUNCIL

TEXAS PARKS & WILDLIFE

LOCAL HOST

Welcome



From top: Hal Beecher, Peter Aarrestad, Kevin Mayes and Kathleen Williams

From the Planning Committee: Welcome to San Antonio and FLOW 2008!

The Instream Flow Council and Texas Parks and Wildlife Department welcome you to San Antonio and *FLOW 2008*.

We are excited that such a broad array of people from a variety of backgrounds and professional interests has stepped forward to participate in this interactive conference designed to advance our collective ability to integrate instream flow science, policy and public dialogue. By being here, you are demonstrating your commitment to help solve the instream flow challenges we all face, regardless of our individual professional background, educational experience, current career path or geographic location.

We all share the collective responsibility to determine how water management decisions can best provide for our societal needs, including ensuring sufficient waters are provided to sustain healthy aquatic communities and providing for a myriad of water-based recreational uses. We believe bridging the historically common gaps between science, public policy (including laws) and public dialogue in water management and instream flow decision-making is not only possible, but absolutely necessary if we are to be successful.

It is through this over-arching goal that each of you are asked to personally challenge yourself, to actively participate in all facets of this conference, to meaningfully engage and get to know other conference participants from other disciplines, and to contribute to our collective development of the *FLOW 2008* Action Plan. Doing all of these things will not only be personally and professionally rewarding, but will ensure we continue to work together to define the future of the water resources we care so deeply about and that brought each of us to this interactive conference.

Thanks for being bold and participating in *FLOW 2008*!

Hal Beecher
President, Instream Flow Council

Peter Aarrestad
Chair, *FLOW 2008* Planning Committee

Kevin Mayes
Chair, Local Arrangements

Kathleen Williams
Executive Director, Instream Flow Council

Conference Goal

Advance the integration of science, policy and public dialogue related to instream flow and improve the ability of diverse stakeholders to cooperatively solve instream flow problems in the U.S. and Canada.

Conference Sponsors Platinum

THE WILLIAM AND FLORA HEWLETT FOUNDATION

Program At-A-Glance

Tuesday

7:15 a.m.	Breakfast "Meet-and-Greet" with Exhibitors
8 a.m.	Conference Welcome and Overview
8:30 a.m.	Achieving Excellence: Creative Approaches to Collaborative Instream Flow Problem-Solving
11:30 a.m.	Lunch & Keynote Address
1 p.m.	"State of the Art" Panel - Instream Flow Science, Policy and Public Dialogue
3 p.m.	Plenary: Trends, Obstacles and Opportunities Related to Instream Flow Work
3:45 p.m.	What Have We Learned about Overcoming Obstacles and Realizing Opportunities?
5:30 p.m.	Reception

Wednesday

8 a.m.	Experiences and Perspectives - Instream Flow Case Studies #1
10 a.m.	Action Planning #1: How Do We Better Integrate Science, Policy and Public Dialogue to Solve Instream Flow Problems?
12 p.m.	Lunch IFC Awards
1:15 p.m.	Experiences and Perspectives - Instream Flow Case Studies #2
3:30 p.m.	Action Planning #2: Refining the Ideas
7 p.m.	Reception and Dinner: Buckhorn Museum & Saloon Keynote Address

Thursday

8 a.m.	Action Planning #3: The Regional Context
10:30 a.m.	The *"FLOW 2008* Action Plan" Comes Together
12:30 p.m.	Lunch & Closing Keynote Address
2:30 p.m.	Adjourn

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CHARLES STEWART MOTT FOUNDATION

Program ◆ Monday & Tuesday

Monday, October 6

8 a.m. - 4:30 p.m. — **Pre-Conference Workshops**

Romeo & Julieta
Workshop #1: What About Those High Flows? Environmental Flow Requirements for High Flows on Streams and Rivers
Moderator: **Alan Wald**, Washington Department of Fish & Wildlife

Monte Cristo
Workshop #2: Use of the Mesohabitat Simulation Model (MesoHABISIM) for Instream Habitat Assessments
Instructor: **Piotr Parasiewicz**, Rushing Rivers Institute

Trinidad
Workshop #3: The Nature Conservancy's Tools & Methods for Developing Environmental Flow Recommendations
Instructors: **Colin Apse, Tom Fitzhugh, Eloise Kendy and Brian Richter,** The Nature Conservancy

5:30 p.m. - 7 p.m. — **Pre-Conference Social**
Romeo & Julieta

Tuesday, October 7

7:15-7:45 a.m. — **Breakfast "Meet-and-Greet" with Exhibitors**
(*Exhibit booths are located in the La Habana and Bolivar rooms and the posters are located in the Trinidad and Monte Cristo rooms.*)

8 a.m.
Coronado
Conference Welcome and Overview
Phil Durocher, Director of Inland Fisheries, Texas Parks and Wildlife Department
Kevin Mayes, IFC Local Host, Texas Parks and Wildlife Department
Hal Beecher, IFC President, Washington Department of Fish and Wildlife

8:30 a.m.
Coronado
Achieving Excellence: Creative Approaches to Collaborative Instream Flow Problem-Solving
Water allocation issues can pit multiple stakeholders and agencies with contending views against each other. Learn how to assess and build consensus in these situations. **Professor Larry Susskind**, author of *Negotiating Environmental Agreements* (1999) and *Breaking Roberts Rules: The New Way to Run your Meeting, Build Consensus and Get Results* (2006) offers a 2.5-hour highly interactive short course explaining creative methods for finding balance between science, diverse interests, and laws and policies.

11:30 a.m.
Coronado
Lunch - Plenary
Environmental Flow Policy in Texas
Robert Puente, CEO San Antonio Water System, former Texas Legislator

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San Antonio Water System
SAN ANTONIO RIVER AUTHORITY
Water Brings Us Together

Program ◆ Tuesday

1 p.m.
Coronado

Plenary Panel

"State of the Art - Instream Flow Science, Policy and Public Dialogue*"
This three-person panel will summarize each of their three papers prepared in advance. Moderated discussion will follow to build on these leaders' work and expand the context for subsequent conference sessions. The final papers will be submitted for publication as a featured collection in the *Journal of the American Water Resources Association* (JAWRA).

Moderator: Brian Richter, Co-Lead of The Nature Conservancy's Global Freshwater Team ◆ *Interest in instream flow protection is growing briskly in recent years, both here in the U.S. and abroad. Not surprisingly, approaches and concepts pertinent to the science, policy and public dialogue associated with instream flow are evolving quite rapidly. In the interest of bringing conference participants up-to-date on these developments and fostering an exchange of information and ideas, a panel of experts will discuss the "state of the art" in the field of instream flow management.*

Featured authors/panelists:

Science: Geoffrey E. Petts, President, University of Westminster, and Editor of *River Research and Applications* ◆ *The challenge of balancing the growing water demands of increasingly urbanized human societies and the water needs to protect water-dependent ecosystems is forecast to continue to intensify into the foreseeable future. This paper presentation reviews international progress in advancing the science of flow regulation, identifies key obstacles to further progress and seeks lessons from the ways instream flow science is being used in practice.*

Policy: Larry MacDonnell, P.C., water attorney and consultant, former director of the Natural Resources Law Center at the University of Colorado School of Law ◆ *As public demand for healthy rivers grows, we are revisiting long-standing policies promoting various forms of river regulation for economic benefit. This paper presentation summarizes emerging policies for protecting and restoring stream flows in support of this emerging water management goal.*

Public Dialogue: Mark P. Smith, Director, Eastern U.S. Freshwater Program, The Nature Conservancy ◆ *In the crowded arena of public policy it is difficult to have issues "heard" by decision-makers. How can the need for new policies and programs to protect environmental flows rise above the voices of competing issues and agendas? This paper presentation will discuss how people, planning and events come together to set new agendas for the public, agencies and decision-makers.*

2:30 p.m.

Networking Break

Refreshments in Booth/Poster Area

*By "public dialogue" we mean the processes and interrelations of people and interests acting to improve instream flow conditions.

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Alberta Canada

USGS science for a changing world

Program ◆ Tuesday & Wednesday

3 p.m.
Coronado

Plenary: Trends, Obstacles and Opportunities Related to Instream Flow Work and Progress

What do you think are the major trends, obstacles and opportunities that most significantly affect the ability to resolve instream flow problems? Participants have weighed in on this question and others in the pre-conference survey that built on the Instream Flow Council's International Instream Flow Program Initiative. Speakers will present the results of the pre-work and foster discussion to ensure a solid topical foundation for subsequent conference discussions.

Presenters:
Nina Burkardt, U.S. Geological Survey
Tom Annear, Wyoming Game & Fish Department

3:45-5 p.m.
Coronado

What Have We Learned about Overcoming Obstacles and Realizing Opportunities?

Discussion groups (at pre-assigned tables) will identify the most important lessons learned thus far about solving instream flow problems in the U.S. and Canada. Building on the expertise and experience of the conference participants, the goal will be to identify "cutting edge" strategies and resources that others might find helpful in response to particular obstacles and opportunities.

Facilitator: Larry Susskind

5:30-7 p.m.

Reception in Booth/Poster area

Dinner on Your Own/Explore Town

Wednesday, October 8

8 a.m.
Coronado

Experiences and Perspectives - Instream Flow Case Studies #1

Campbell River, British Columbia, and Peace River, Florida

For each of the two case study rivers, panelists will address: the issues that led to the instream flow process/studies, the policy context, the science done, the public dialogue process, the results, the roles each element played in the outcome and lessons learned.

Moderator: Andrew Paul, Alberta Sustainable Resource Development

Campbell River:
Presenter: **Dan Ohlson**, Compass Resource Management Ltd.
Perspective: **Mel Sheng**, Fisheries and Oceans, Canada

Peace River:
Presenter: **Marty Kelly**, Southwest Florida Water Management District
Perspective: **Lisa Beever,** Charlotte Harbor National Estuary Program

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Program ◆ Wednesday

Campbell River, British Columbia
In response to public outcry, the federal regulator took BC Hydro to court over environmental concerns, and both sides were dissatisfied with the results. BC Hydro developed a new plan integrating broad stakeholder involvement and rigorous technical assessments. Previously, the water management planning process had been confrontational and now the new plan is considered one of the most successful in Canada.

Peace River, Florida
"*No significant harm*." This touchstone phrase has led Florida past the threat of increasing water management conflicts into an era of water use practices which respect the ecosystems that sustain responsible economic growth. The river's instream flow studies illustrate the power of public will, legislative reform and sufficient resources for scientific investigation.

9:30 a.m.

Networking Break
Refreshments in Booth/Poster Area

10 a.m.
Coronado

Action Planning #1:
How Do We Better Integrate Science, Policy and Public Dialogue to Solve Instream Flow Problems?
(Facilitated Discussions)
Scientific results can sometimes be difficult to apply. Public policy may not adequately reflect public sentiments. Scientific uncertainty can be difficult to accept in water allocation decisions. People of like interests and expertise tend to communicate more with each other than beyond. Some public policy may not provide for creative solutions. What actions or resources could be initiated or developed to help improve the situation?
Facilitator: Larry Susskind

12 p.m.
Coronado

Lunch (on-site)
IFC Awards
Presenter: Hal Beecher, IFC President

1:15 p.m.
Coronado

Experiences and Perspectives - Instream Flow Case Studies #2
Housatonic River, Connecticut, and Platte River, Nebraska
(see previous description for case study panel format)

Moderator: Peter Aarrestad, Connecticut Department of Environmental Protection

Housatonic River:
Presenter: **Melissa Grader**, U.S. Fish & Wildlife Service
Perspective: **Bob Gates,** FirstLight Power Resources

Platte River:
Presenter: **Ann Bleed**, Nebraska Department of Natural Resources (retired)
Perspective: **Don Kraus**, Central Nebraska Public Power and Irrigation District

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The Nature Conservancy
Protecting nature. Preserving life.™

ONTARIO CANADA

R2 Resource Consultants

Program ◆ Wednesday

Housatonic River, Connecticut
Hydropower is often referred to as "Green Power." However, dams, power canals and impoundments can have an array of ecological effects. The U.S. Congress established two primary policies to balance hydropower development: the Federal Power Act and the Clean Water Act. The river illustrates the interplay of these policies with science and public dialogue.

Central Platte River, Nebraska
The reliance of Colorado, Wyoming and Nebraska on Platte River water for irrigation, power production and drinking water has impacted fish and wildlife resources. The states and the Federal government agreed to implement a recovery program as part of a 20-year evolution of science and policy within the context of federal species protection laws and state water law.

3 p.m.

Networking Break
Refreshments in Booth/Poster Area

3:30-5 p.m.
Coronado

Action Planning #2:
Refining the Ideas
(Facilitated Discussions)
Discussion tables will be organized to consider and refine key proposals emerging from Action Planning #1. What would be needed to implement the idea? Who would need to be involved? How would it need to occur and under what conditions? Ideas will be documented to become the beginning of the "*Flow 2008* Action Plan."
Facilitator: Larry Susskind

7 - 10 p.m.
Buckhorn Museum & Saloon

Reception and Dinner*
(requires purchase of banquet ticket)
Roam this unique San Antonio landmark with your favorite beverage for a selection of delicious Texas cuisine. The dinner will be catered by Don Strange of Texas, Inc. The menu features Don Strange Signature food stations: grilled white wings, goat cheese empanadas and gorditas. Six complimentary food stations and desserts will round out the menu. Guests may purchase alcoholic beverages at their individual expense.

More than just a normal museum, the Buckhorn is five museums in one, including Horns, Fins, Feathers, The Hall of Texas History Wax Museum and regular special exhibits unlike anything seen in the world. Plan on getting close to the world-record trophy mounts and the Buckhorn's collection of oddities.

(*Please refer to the map in your conference binder for directions to the Buckhorn.)

8:30 p.m.
Buckhorn Museum & Saloon
Toepperwein Room

Keynote Address:
Have We Kept Faith with Our Rivers? An Assessment of Legal and Ethical Challenges to Watershed Health
Charles Wilkinson, Moses Lasky Professor of Law, University of Colorado Law School

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Program ◆ Thursday

Thursday, October 9

8 a.m.
Coronado

Action Planning #3: The Regional Context
(Facilitated Discussions)
Many potential improvements to the integration of instream flow science, policy and public dialogue are regionally specific. There may be some ideas that may not be applicable to the full U.S. and Canada. Participants will have their choice of which regional discussion to participate in, to further refine previous Action Plan suggestions to make them applicable to their area, or to develop new region-specific suggestions for the Action Plan.
Lead Facilitator: Larry Susskind

Trinidad
Western U.S. (AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY)
Moderator: Matthew McKinney, Center for the Rocky Mountain West

Romeo & Julieta
Central U.S. (IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI)
Moderator: Jim Henriksen, U.S. Geological Survey (retired)

Coronado
Southeastern U.S. (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)
Moderator: Suzanne Schwartz, University of Texas Law School

Monte Cristo A
Northeastern U.S. (CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT)
Moderator: Mark P. Smith, The Nature Conservancy

Monte Cristo B
Canada
Moderator: Dan Ohlson, Compass Resource Management Ltd.

10 a.m.
Networking Break
Refreshments in Booth/Poster Area

10:30 a.m.
Coronado
The *"FLOW 2008* Action Plan" Comes Together
The evolving "*Flow 2008* Action Plan" will be reviewed and refined through full conference participation. Spokespersons for each proposed action and region will respond to questions and the full group will work to refine the overall plan and related post-conference action on it. An attempt will be made to adopt the Action Plan by consensus.
Facilitator: Larry Susskind

12:30 p.m.
Coronado
Lunch/Closing
Wrap-Up and Next Steps
Raffle Drawing

Closing Keynote:
Imagining and Creating a World in Harmony with Earth's Water Cycle
Sandra Postel, Director of the Global Water Policy Project and Visiting Senior Lecturer in Environmental Studies at Mount Holyoke College

2:30 p.m.
Adjourn - Safe travels

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Warmwater Streams Committee
Southern Division of the American Fisheries Society

Poster Session

Tuesday 8 a.m. - Wednesday 5 p.m.

Trinidad and Monte Cristo

Explore the poster session to learn about recent innovations in instream flow work. The presenters will be available to discuss the issues that led to their project as well as the potential implications of their findings.

Determining differences in streamflow changes for unregulated streams in Kansas and some causes. Jonathan Aguilar, BAE Dept., Kansas State University

Spatial models for predicting the responses of river communities to environmental change. Kurt Anderson, Department of Biology, University of California

The effects of future development on Pocono Creek stream flow and ecological integrity. Charles App, U.S. Environmental Protection Agency Region 3

Pee Dee River instream flow study. Stephen Arnold, Devine Tarbell & Associates

Use of instream habitat modeling for regional drought response planning. Robert W. Burgholzer, Virginia Department of Environmental Quality

Environmental flows for a regulated river under a new hydro scheme. Oscar Calahorra, Comisión Federal de Electricidad (CFE), Boca del Río, Ver., México

An agent-based model for environmental flow assessment in the Songhua River Basin, China. He Chen, School of Environment, Beijing Normal University

Grade Creek Wyoming: the channel reconstruction, flow restoration, and mainstem reconnection of a migratory cutthroat trout spawning tributary. Kirk Dahle, Coordinator, Trout Unlimited's Utah Water Project

Restoring flow to the Santa Fe River: Lessons from an unfinished agenda. David Groenfeldt, Santa Fe Watershed Association

How much water do trout streams need? Philip Harrison, University of Northern Colorado

An environmental flows information system for Texas. Eric Hersh, The University of Texas at Austin, Center for Research in Water Resources

Assiniboine River Instream Flow Study. Joel Hunt, Aquatic Ecosystem Section, Fisheries Branch, Manitoba Water Stewardship

Year 12 of an adaptive management experiment for instream flows in the Bridge River, British Columbia. Dave Hunter, BC Hydro

Nebraska's Niobrara River instream flow initiative: a multidisciplinary approach. Larry Hutchinson, Nebraska Game and Parks Commission

Instream flow setting in the Wenatchee Watershed: a case study of collaborative decision-making in Chelan County, WA. Michael Kaputa, Chelan County Natural Resource Department

Can urbanization reverse ground-water depletion? Insight from a case study in Hebei Province, North China Plain. Eloise Kendy, The Nature Conservancy

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ENTRIX
Environmental and Natural Resource Management Consultants

Poster Session

Tuesday 8 a.m. - Wednesday 5 p.m.

Trinidad and Monte Cristo

Watershed influences and in-lake processes--a regional scale approach to monitoring instream flows to a drinking water reservoir, Lake Houston, Texas. M.T. Lee, USGS, Texas Water Science Center

The organization of instream flow provision. Edna Loehman, Purdue University, Agricultural Economics

A collaborative approach to flow restoration in a large river basin: Connecticut River, USA. Kim Lutz, The Nature Conservancy

The Magpie River ramping study: physical responses to flow alteration. R.A. Metcalfe, Renewable Energy Section, Ontario Ministry of Natural Resources

A method to combine bivariate habitat suitability criteria with 2D hydraulic simulations to better predict habitat versus flow relationships using a GIS spatial analysis tool. William J. Miller, Miller Ecological Consultants, Inc.

Assessing effects of flow and habitat changes after re-licensing at the Tapoco Hydroelectric Project on Cheoah River, North Carolina. Donald J. Orth, Department of Fisheries and Wildlife Sciences, Virginia Tech

Brown trout recruitment variability in a tailwater influenced by daily flow fluctuation. Donald J. Orth, Department of Fisheries and Wildlife Sciences, Virginia Tech

Effects of increased minimum environmental flows on the fishes of the Ouachita River, Arkansas. Jeff W. Quinn, Arkansas Game and Fish Commission

Sustainable water allocation and instream flow policy in the New England Region: understanding the implications of climatic variability and change. Krista Ricupero, University of Maine

Habitat models for definition of protected instream flows for the Lamprey River in New Hampshire. Joseph N. Rogers, Rushing Rivers Institute

Instream flow assessment of a groundwater dependent ecosystem in southern Oklahoma. Titus Seilheimer, Oklahoma Cooperative Fish and Wildlife Research Unit

Developing sustainable watershed management strategies for perennial flashy/ runoff streams. Pamela V'Combe, Delaware River Basin Commission

Integrating all aspects of habitat into decision making for flow regulation. Kenneth J. Wagner ENSR/AECOM CT

Effects of high recreational flows on fishes, amphibians and macroinvertebrates: research results from the pulsed flow program. Paciencia Young, University of California, Animal Science Department

***FLOW 2008* has been approved for up to 17 hours of CLE accreditation by the State Bar of Texas. Texas forms are provided at the registration desk. Attorneys from other states are encouraged to pursue CLE credits through their State Bar.**

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Speaker and Facilitator Biographies

Peter Aarrestad supervises the Habitat Conservation and Enhancement Program of the Connecticut Department of Environmental Protection's Inland Fisheries Division. Since 1989, he has been involved with fish habitat issues and conducted environmental assessments of various regulated activities, including hydropower relicensing and the consumptive use of ground and surface waters that may affect aquatic resources. He is IFC President-elect, General Chair of *FLOW 2008* and one of the authors of the IFC book, *Instream Flows for Riverine Resource Stewardship*.

Tom Annear has been involved with instream flow work since 1981. He helped establish the Wyoming Game & Fish Department's instream flow program and has overseen the filing of 100 instream flow water rights. He co-chaired the IFC Steering Committee from 1995 to 1998, served as the first IFC President from 1998 to 2000, is a member of the IFC Executive Committee, was the senior author of the IFC book, *Instream Flows for Riverine Resource Stewardship*, and is project manager for IFC's International Instream Flow Program Initiative.

Hal Beecher is Section Manager for the Water Team in the Washington Department of Fish & Wildlife (WDFW) Habitat Program's Science Division. Since 1979, he has worked on instream flows, including hydropower and water use, for WDFW. Previously, he worked for The Nature Conservancy in Oregon and Washington. He served as Western States IFC Regional Director in 2002-2004 and is currently the IFC President. He was one of the authors of the IFC book, *Instream Flows for Riverine Resource Stewardship*.

Lisa Beever is the Director of the Charlotte Harbor National Estuary Program in Florida, joining the CHNEP staff in 2002 but participating in its programs since 1995. She presented original research at the first CHNEP Watershed Summit, implemented a native plant restoration grant and won the highly competitive Federal Highway Administration Environmental Excellence award. She earned her PhD in urban and regional planning from Texas A&M University and is a registered landscape architect.

Ann Bleed served as the Director of the Nebraska Department of Natural Resources where she assisted with the decision on whether to grant a number of instream flow rights for fish and wildlife within the Platte River Basin in Colorado, Wyoming and Nebraska. Ann holds a PhD in ecological studies and an MS in engineering and also has taught courses at the University of Nebraska in engineering, forestry, fisheries and wildlife.

Nina Burkardt is a Research Social Scientist with the U.S. Geological Survey in Fort Collins, Colorado. Her research focus includes negotiation, conflict resolution, and the political dynamics surrounding decisions about water use and allocation. She has published results in *Environment Management*, *Wildlife Society Bulletin* and several other journals. She has been involved with IFC for ten years and is considered an honorary member.

Phil Durocher is the Director of Inland Fisheries for the Texas Parks & Wildlife Department. He has led the Texas Freshwater Program since 1993 and has worked with the Texas Parks & Wildlife Department as a Fisheries Manager and Program Administrator for over 30 years. He began his career in Texas in 1974 as a Fisheries Research Specialist. The former Louisiana native received his B.S. degree from Nicholls State University and his M.S. from Southwest Texas State University.

Robert Gates is the Station Manager for Connecticut Hydro, a division of FirstLight Power Resources Services, a management company that oversees the operations of 13 hydroelectric stations, one coal station and peaking combustion turbines. He served as Project Manager for the relicensing of the Housatonic River Project from 1995-2004, when the Federal Energy Regulatory Commission issued the license order. Bob has 27 years experience in the hydroelectric industry. He received his Executive MBA from the University of New Haven and a BS in civil engineering from Norwich University.

Speaker and Facilitator Biographies

Melissa Grader is a Fish and Wildlife Biologist with the U.S. Fish & Wildlife Service's New England Field Office. Melissa holds an MS in Wildlife and Fisheries Conservation from the University of Massachusetts and, for the past 14 years, has worked in the Service's Federal Activities/Hydropower Program. She evaluates the environmental impact of hydroelectric projects, encountering such ecological issues as fish passage, instream flows and water quality.

Jim Henriksen is a principal for Environmental Flow Specialists, Inc., developing tools for stream classification, assessing flow alteration, establishing environmental flow standards and developing flow recommendations. Jim has over 30 years of experience in environmental issues dealing specifically with rivers. He was a member of the U.S. Fish & Wildlife Service's Instream Flow Group in Fort Collins, Colorado, and the U.S. Geological Survey, Biological Resources Discipline, and one of the primary developers of the Hydroecological Integrity Assessment Process (HIP).

Marty Kelly is the Director of the Minimum Flows and Levels Program for the Southwest Florida Water Management District. The program establishes environmental flows and levels on the state's significant water resources to protect them from withdrawals. Marty has been with the district since 1987. Previously, he was an Environmental Scientist with the Illinois Environmental Protection Agency. Marty received his Ph.D. in zoology with emphasis in limnology and aquatic ecology from Southern Illinois University and has a B.A. and M.A. in biology from North Texas State University.

Don Kraus, P.E., is the General Manager of the Central Nebraska Public Power and Irrigation District and has served in that role since 1992. The Central District operates 104 MW of hydro generation and delivers irrigation water to over 100,000 acres in South Central Nebraska. Kraus received a B.S. in electrical engineering in 1971 from the University of Nebraska and is a registered Professional Engineer.

Larry MacDonnell is an attorney and consultant from Boulder, Colorado, who is spending the Fall 2008 semester as a visiting professor at the University of Wyoming College of Law. He served as the initial director of the Natural Resources Law Center at the University of Colorado School of Law between 1983 and 1994 where he co-edited the book, *Instream Flow Protection in the West*. His work and writing focus primarily on water and on sustainable use of natural resources.

Kevin Mayes is the River Assessment Team Leader in the River Studies Program within the Texas Parks and Wildlife Department's Inland Fisheries Division. Since 1989 he has worked on diverse instream flow issues in Texas and he recently led the Department's efforts in the development of the Texas Instream Flow Program. He is the IFC Governing Council member for Texas and is one of the authors on the IFC book, *Instream Flows for Riverine Resource Stewardship*.

Matthew McKinney is the Director of the Public Policy Research Institute at the University of Montana. Prior to his current position, he served as the Founding Director of the Montana Consensus Council for 10 years. During the past 18 years, he has designed, facilitated and mediated nearly 50 public dialogues, including citizen participation and multi-party negotiations on issues related to federal land management, water policy, fish and wildlife, land use planning and growth management, public health and human services, tax policy and campaign finance reform.

Dan Ohlson is a partner at Compass Resource Management Ltd. in Vancouver, British Columbia, where he works on environmental risk management problems that involve multiple resource use conflicts, scientific uncertainty, and environmental and economic trade-off analyses. Trained as both an environmental planner and professional engineer, Dan has facilitated numerous multi-stakeholder planning processes. Dan holds a MS in Environmental and Natural Resources Planning from the University of British Columbia.

Andrew Paul has been working as an aquatic ecologist in western Canada and internationally since 1990. Andrew has published several articles across a diversity of fields that include conservation biology, community restoration, non-native species invasions, population ecology, recreational fisheries and instream flow needs. In 2005, Andrew joined the provincial government of Alberta, as their Instream Flow Needs Biologist.

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American Rivers Thriving By Nature

Speaker and Facilitator Biographies

Geoffrey Petts is serving as President at the University of Westminster, having previously been Pro Vice-Chancellor at the University of Birmingham with responsibility for Resources. His publications include over 100 papers and 20 books, and he is founder and Editor-in-Chief of the *International Journal of River Research and Application*. He has held a number of external appointments including terms as Director of the International Water Resources Association. In 2007, he was awarded the Busk Medal of the Royal Geographical Society for his contribution to river conservation.

Sandra Postel is the founder and Director of the Global Water Policy Project based in western Massachusetts. She also serves as Visiting Senior Lecturer in Environmental Studies at Mount Holyoke College. She is a leading authority and prolific author on international water issues and has written books and numerous scholarly and popular articles on the sustainable use of the Earth's freshwater supply. Her award-winning book, *Last Oasis: Facing Water Scarcity* appears in eight languages and was the basis for a PBS documentary.

Robert Puente is the interim CEO of the San Antonio Water System (SAWS). Previously, he served in the Texas House of Representatives from 1991-2007 where he was chair of the Natural Resources Committee and assisted in developing a comprehensive water policy for Texas, including playing an instrumental role in the passage of the Edwards Aquifer Authority legislation. He is a member of the Texas Water Advisory Council and a graduate of the University of Texas Law School.

Brian Richter is co-leader of The Nature Conservancy's Global Freshwater Team. Involved with river science and conservation for over 20 years, he has provided scientific and technical consultation on more than 90 river projects worldwide. He also has developed numerous scientific tools to support river restoration efforts, including the Indicators of Hydrologic Alteration software used by water managers and ecologists worldwide. He has published many scientific papers and co-authored a book with Sandra Postel entitled *Rivers for Life: Managing Water for People and Nature*.

Suzanne Schwartz serves as the Environmental Program Director at the Center for Public Policy Dispute Resolution, a group at the University of Texas Law School that facilitates collaborative processes and mediates public policy disputes. Prior to her tenure there, she worked as an attorney for Texas state agencies with a focus on water rights and planning.

Mel Sheng has been with Fisheries and Oceans, Canada since 1978 and is currently a Senior Resource Restoration Biologist in the Salmon Enhancement Program. His area of responsibility is Vancouver Island, the Central Coast and the Sunshine Coast regions of British Columbia. He is involved with watershed assessments that identify limiting factors for salmonids and provides advice on instream flow requirements as well as designing habitat restoration projects.

Mark P. Smith is the Director of the Eastern U.S. Freshwater Program for The Nature Conservancy. Prior to joining TNC, Mark spent six years as the Director of Water Policy at the Massachusetts Executive Office of Environmental Affairs and six years with the U.S. Environmental Protection Agency in Boston as the Project Manager for the Casco Bay Estuary Project, part of EPA's National Estuary Program. He has a master's degree in urban and environmental policy from Tufts University and a bachelor's degree from Washington University in St. Louis.

Larry Susskind is the Ford Professor of Urban and Environmental Planning at the Massachusetts Institute of Technology, and the Director of the Public Disputes Program and Visiting Professor for the Program on Negotiation at Harvard Law School. He is the author of *Negotiating Environmental Agreements* (1999) and *Breaking Roberts Rules: The New Way to Run your Meeting, Build Consensus and Get Results* (2006), and the founder and Senior Editor of the journal, *Environmental Impact Assessment Review*. Considered one of the country's most experienced public and environmental dispute mediators, he is also the founder of the Consensus Building Institute and recipient of the Global Environmental Award for outstanding contribution to the field of environmental conflict.

Charles Wilkinson is the Moses Lasky Professor of Law at the University of Colorado Law School. He specializes in federal public land law, Indian law and water law, and is the author of 13 books, including *Blood Struggle*, featured on public radio. He has received the National Conservation Award from the National Wildlife Federation and has served on many special assignments for the Departments of Interior, Agriculture and Justice, including now serving as facilitator in far-ranging negotiations between the City of Seattle and the Muckleshoot Indian Tribe.

Acknowledgements

The *FLOW 2008* Planning Committee thanks the numerous people who helped make this conference possible, including Larry Susskind and all our speakers and facilitators. Also, a very special thanks to the Texas Parks & Wildlife Department for hosting this conference and contributing much to its logistics and materials. Finally, thanks to our variety of generous sponsors who, without their financial assistance, this conference would not have been possible.

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