



**BIG THOMPSON
WATERSHED
FORUM**

2015 14th Watershed Conference

~ THE FUTURE OF WATER QUALITY IS IN OUR HANDS ~



*From Flood
to Future
~
Rising from
Mud & Ashes*



FIRESIDE CAFÉ ~ GROUP PUBLISHING BUILDING
Loveland, Colorado
Thursday, September 24, 2015

**Our mission is
to protect and improve water quality
in the Big Thompson River Watershed
through collaborative monitoring,
assessment, outreach, and
restoration projects.**





Conference Agenda

Thursday, September, 24, 2015
(8:00 AM - 4:00 PM)



| | |
|----------|---|
| 8:00 AM | Registration and Continental Breakfast |
| 8:40 AM | Welcome: Cecil Gutierrez, Mayor, City of Loveland |
| 8:50 AM | Opening Remarks: John Matis, BTWF Board Chairman |
| 9:00 AM | <i>Session I: 'Your River & Who Runs It ~ Functionality & Monitoring in the C-BT System'</i> |
| | James VanShaar, Water Resources Group Lead, U.S. Bureau of Reclamation |
| | Esther Vincent, Water Quality Manager, Northern Water |
| | Zack Shelley, Program Director, Big Thompson Watershed Forum |
| 9:40 AM | <i>Session II: 'The 2013 Flood ~ Impacts to Operations & Infrastructure'</i> |
| | Chris Matkins, Water Utility Manager, Water & Power, City of Loveland |
| | Amy Johnson, Project Manager, Northern Water |
| | Mark Peterson, Civil Engineer, Larimer County |
| 10:35 AM | Break & Refreshments |
| 10:50 AM | <i>Session III: '2015 State of the Watershed Water Quality Report'</i> |
| | Christine Hawley, Environmental Engineer, Hydros Consulting |
| 11:50 AM | ~Italian Buffet Luncheon~ Dave Cole Environmental Scholarship, Award Presentations, Acknowledgements |
| 1:00 PM | <i>Session IV: 'From Flood to Future ~ Plenary Panel Part I'</i> |
| | Chris Carlson ~ Panel Facilitator Civil Engineer, Public Works, City of Loveland |
| | Chris Sturm, Stream Restoration Coordinator, Colorado Water Conservation Board, CDPHE |
| | Gordon Gilstrap, President, Big Thompson Conservation District |
| | James White, Forester & Flood Recovery Team, U.S. Forest Service |
| 2:20 PM | Break & Refreshments |
| 2:35 PM | <i>Session V: 'From Flood to Future ~ Plenary Panel Part II'</i> |
| | Chris Carlson ~ Panel Facilitator Civil Engineer, Public Works, City of Loveland |
| | Bob Kimbrough, Associate Director, U.S. Geological Survey |
| | John Giordanengo, Restoration Ecologist, AloTerra Restoration |
| | Ben Swigle, Biologist, Colorado Parks & Wildlife |
| 3:55 PM | Wrap-Up and Closing Remarks - John Matis and Zack Shelley, BTWF |
| 4:00 PM | Adjourn |

Speaker Abstracts & Bios

SESSION I

Your River & Who Runs It ~ Functionality & Monitoring in the Colorado-Big Thompson (C-BT) System



James VanShaar

**Water Resources Group Lead, Eastern Colorado Area Office,
U.S. Bureau of Reclamation**

With its headwaters in the gorgeous Rocky Mountain National Park, the Big Thompson River (Big-T) provides innumerable public benefits. Careful management by government and irrigation entities facilitate public use of the river while producing clean hydropower and essential water supplies.

Except during very high flow, the Big Thompson River is affected significantly by the operation of the Colorado - Big Thompson Project (C-BT). The state's largest transmountain diversion, the C-BT brings an average of 230,000 acre-feet of water from the Colorado River to the Front Range using natural and man-made facilities to convey and control flows. This water may be delivered at the mouth of the canyon or stored in Carter Lake or Horsetooth Reservoir to be further conveyed or delivered to municipal, industrial and agricultural users, generally providing other benefits along its way. Reclamation and partner Northern Colorado Water Conservancy District collaborate on C-BT management.

East slope runoff can also be affected by C-BT management through hydropower "skim" operations. Water is diverted from Wind River at East Portal Dam and from the Big Thompson at Olympus Dam (Lake Estes) and Dille Diversion Dam (3 miles upstream of the canyon mouth). Environmental flows bypass these diversion points. After generating hydropower, diverted flows not belonging to the C-BT or excess capacity contract holders are returned to the River near the canyon mouth. These diversions and subsequent in-channel flows are administered by the River Commissioner and further managed by non-federal water management entities.

James VanShaar serves as Lead of the Water Resources Group at Reclamation's Loveland Office. Among other things, this group plans for and schedules water movement for the Colorado-Big Thompson Project. James has degrees in Civil Engineering from Utah State University (1998) and University of Washington (2000) with focus on water resources management, hydraulics and hydrologic modeling. Moving his family to Fort Collins in 2000, he accepted a consulting position and built simulation and forecasting models for more than 120 river / reservoir systems. James joined Reclamation in early 2012, bringing his desire to innovate and modernize water management to that federal office. James acts as Reclamation liaison to the South Platte Basin Roundtable and served similarly at the Loveland Emergency Operations Center in September 2013. A 2014 graduate of the Colorado Water Leaders program, James finds great satisfaction in applying leadership qualities to his roles at home and church.



Esther Vincent
Water Quality Manager, Northern Water

This presentation will discuss the role of Northern Water in water resource management in the Big Thompson Watershed. It will describe how the operation of the Colorado-Big Thompson Project is interconnected with the river.

Esther is the Water Quality Manager with the Northern Colorado Water Conservancy District in Berthoud, Colorado. She completed her Masters degree in Civil Engineering in 1999 from the National Superior School of Hydraulics and Mechanics of Grenoble, France and is a registered Professional Engineering in the State of Colorado. She has been with Northern Water since 1999 where she started as an intern working on water resources planning and forecasting. Her responsibilities then expanded to the areas of water quality and water conservation. She now manages Northern Water's water quality program. Esther is also on the board of the Grand County Water Information Network and is a previous board member of the Big Thompson Watershed Forum and WaterWise Council. Esther was born and grew up in Paris, France and went to college in the French Alps where she became an avid skier. She lives in Old Town Fort Collins with her son.



Zack Shelley
Program Director, Big Thompson Watershed Forum
(Zack's bio is noted under Forum staff and board section)

In the late 1990's, the Forum created a Cooperative Monitoring Program and a Volunteer Monitoring Program to target water quality and related ecological concerns throughout the Big Thompson River Watershed. This presentation will be discussing some of these program goals which include: (1) increasing community awareness, understanding and consideration of water quality issues and watershed stewardship; (2) comparing and analyzing in-situ sampling data with existing water quality standards and classifications; (3) determining temporal and spatial water quality trends on a watershed scale; and (4) the collaborative effort that exists between the Forum and stakeholders within the watershed.

SESSION II

The 2013 Flood ~ Impacts on Operations and Infrastructure



Chris Matkins
Water Utilities Manager, Water & Power Department, City of Loveland

Rainfall and the resulting Big Thompson River flows during the Flood of 2013, while less than historic peak 'flash flood' intensities, were unprecedented in duration. The unrelenting, grinding erosion sustained along the river corridor during this event wreaked havoc in many areas, including the operations of the Water Utility. Resulting property damage far exceeded prior events, including the Big Thompson's 1976 Flash Flood.

During this flood emergency, Loveland Water and Power faced high stakes decision-making with incomplete information, conflicting field reports, and inaccurate news and social media rumors. Through

on-the-fly consensus-building, leadership throughout the organization, from the Field Crews to the Emergency Operations Center, made strong decisions and safeguarded the water supply for nearly 70,000 customers throughout the event and recovery efforts. This presentation will re-live some of the key moments of this event, and how Loveland Water and Power thrived during this chaotic event.

Chris Matkins is the Water Utilities Manager for the City of Loveland and manages both Water and Wastewater enterprises. This includes raw water; water treatment production and distribution; waste water collection, treatment, and discharge to the Big Thompson River. His areas of expertise include utility operations and financial management, engineering management, planning and development, and hydraulic engineering. Chris was integral in managing the utilities during the Flood of 2013; ensuring the community's water supply was never disrupted. Chris has worked in the water industry for over 20 years, primarily in Northern Colorado. Prior to the City of Loveland, Chris worked in private consulting and grew up working on a farm. Chris is a registered professional engineer, and received B.S. and M.S. degrees in Civil Engineering from the South Dakota School of Mines and Technology. Chris enjoys bicycling, backpacking, fishing, kayaking, skiing, and enjoying Colorado's natural beauty.



Amy Johnson
Project Manager, Northern Water

Northern Water was impacted by the flooding of 2013. Fortunately, we were able to shut the canals down and did not have to deliver water between the flooding in September and completion of the repairs in December. Affected pipelines remained in service throughout the repair efforts. Six separate locations (which made up 12 "sites") were affected and required repair. Northern Water crews were able to complete most of the repairs with internal resources working overtime. Repairs included silt removal in canals, complete canal reconstruction on the Boulder Feeder Canal near Lyons, road reconstruction, channel re-alignment, and replacement of eroded bedding and cover material on the Southern Water Supply Pipeline at the Little Thompson and St. Vrain Rivers. Approximate cost of the 2013 recovery efforts is about \$1,000,000.

To date we have received \$500,000 in reimbursements from FEMA. We are still working on the FEMA reimbursement process, and small project closeout. Northern Water has learned several lessons resulting in institutional improvements for better documentation of labor and equipment for the FEMA process as well as procurement rules that meet FEMA standards. Additionally, internal Emergency Response procedures have been developed to assist in future emergencies.

Northern Water was also involved in the development and administration of the CWCB Flood Recovery Grant Program with CWCB. This program has consumed a great deal of staff time (covered by Northern Water's general funds) to assist the State in distributing \$2,555,000 in grant funding to ditch companies, municipalities, and diverters of water from flood affected rivers. Over 110 sub-grants were issued and are still being reimbursed.

Amy Johnson is a Project Manager and Water Resources Engineer for the Northern Colorado Water Conservancy District and has been with the District for 7 years. Her current work includes pump station design, hydraulic modeling, irrigation canal improvements, hydraulic structure design, engineering support, project management, permit writing, and administration of the CWCB Flood Recovery Grant Program and numerous Wildfire Risk Reduction Grants. Amy worked in private consulting for 10 years on water resources projects prior to working for Northern Water. Amy is a Board Member of the Four States Irrigation Council and an active member of the Ditch and Reservoir Company (DARCA), American Society of Agricultural and Biological Engineers (ASABE), and American Society of Civil Engineers (ASCE). She received her BS in Agricultural Engineering from Colorado State

University (Go Rams!) and her MS in Agricultural and Biological Systems Engineering from the University of Nebraska-Lincoln and is a registered Professional Engineer in Colorado and Wyoming.



Mark Peterson
Civil Engineer, Larimer County

The Flood of September 2013 caused widespread and extensive damage to Larimer County infrastructure, severely damaging or destroying 65 bridge and culvert crossings of major streams and obliterating more than 20 miles of roadway. Many areas, such as County Road (CR) 44H and CR 27 along Buckhorn Creek, CR 43 to Glen Haven along the North Fork of the Big Thompson River, CR 47 to Big Elk Meadows along the West Fork of the Little Thompson River or Fish Creek Road along Fish Creek in Estes Park were left completely impassible. County staff, working closely with our contractors, had temporary access restored to most residents within two months.

Permanent recovery efforts, however, are a much more involved and time consuming process and work will continue on some projects for several years. The total cost to repair Larimer County's roads and bridges is expected to be between \$100 million and \$120 million. One of the major challenges is that most all of the federal money being provided through the Federal Emergency Management Agency (FEMA) or the Federal Highway Administration (FHWA) is to be used primarily for the reconstruction of the transportation system. Where opportunities allow, permanent repairs are focused on not simply replacing what was damaged or destroyed, but on constructing infrastructure that considers the river environment and will better withstand and survive future floods.

Mark Peterson has been the County Engineer for Larimer County for the past 17 years. At Larimer County, he oversees a staff of about 30 engineering technicians, surveyors, engineers and construction management personnel. The Engineering Department's main responsibility is the design and construction of capital improvements to roadways and bridges within the County's 900 mile mainline road system. The department also administers floodplains, provides traffic engineering and manages public improvement districts. Mark is a long-term resident of Larimer County and obtained both his Bachelor's and Master's degrees in civil engineering from Colorado State University. Prior to his work at Larimer County, he spent 17 years in the consulting engineering profession working on a variety of floodplain and river engineering projects located throughout the western and southeastern United States.

SESSION III

2015 State of the Watershed Water Quality Report



Christine Hawley
Environmental Engineer, Hydros Consulting

The Big Thompson 2015 State of the Watershed Report, developed by Hydros Consulting and the Forum, presents and assesses water-quality data collected in the Big Thompson watershed. The report considers 2000-2014 data from flowing water sites collected by the Forum's two major monitoring programs: UGSS (cooperative) and USEPA8 (volunteer). The flowing water sites include the mainstem river, major tributaries, and canals. The analysis identified spatial and temporal patterns, including statistically-significant long-term trends for nutrients, metals, coliforms, and other general parameters. Indications of

short-term and on-going water quality effects from recent major fires and the September 2013 flood were noted in the report. Data were also compared to relevant current state water quality standards.

Ms. Christine Hawley is an M.S. environmental engineer at Hydros Consulting in Boulder, Colorado with 19 years of experience. Her primary focus is numerical modeling of temperature and water quality in lakes/reservoirs and rivers. She has also worked with international and local teams of experts on high-profile projects evaluating contaminant transport in groundwater, surface water, transition zone water, and sediment. In addition to a management role on these projects, Ms. Hawley has performed extensive field work, hydrologic and water-quality model development, and complex data interpretation. Ms. Hawley specializes in clear communication of complicated findings to clients, stakeholders, and regulators, ranging from local watershed groups to local governments, state governments, and federal agencies. In addition to her recent work for the Big Thompson Watershed Forum, Ms. Hawley is currently working on water quality projects in Cherry Creek, Clear Creek Canyon, Rocky Flats, Grand Lake, Shadow Mountain Reservoir, Granby Reservoir, and the Poudre River.

SESSION IV

From Flood to Future ~ Plenary Panel Part I



Chris Carlson ~ Panel Facilitator

Civil Engineer, Public Works Department, City of Loveland

Chris Carlson is a civil engineer, certified floodplain manager, and manager of the City of Loveland Stormwater Capital Improvement Program. A Colorado native and graduate of CSU, Chris has designed and managed numerous capital improvement projects, river and floodplain projects, conducted hydrologic studies, and designed a large variety of stormwater quality treatment measures. He currently has 23 years of professional experience in both the private and public sectors. Chris was in the Emergency Operations Center during the 2013 Flood then immediately shifted to flood recovery work, which he has continued with full time since the flood. He currently leads the City's River Team, coordinating the design and construction of flood recovery projects affecting the river through the City. Chris has also been involved with the Big Thompson River Restoration Coalition since its inception in October 2013 at the Elkhorn Fly Shop.



Chris Sturm

Stream Restoration Coordinator, Colorado Water Conservation Board, CDPHE

The Colorado Water Conservation Board (CWCB), the Colorado Department of Transportation (CDOT), and the Colorado Recovery Office (CRO) have been leading recovery efforts involving damaged/relocated streams and damaged highway corridors since the September 2013 floods, which affected most of the northern Front Range urban corridor of Colorado. The strategy has focused on building local watershed coalitions, enabling watershed scale master planning, and implementing stream restoration projects. The foundation of this approach is based on the CWCB Colorado Watershed Restoration Program. The Program exists to provide grant funds and technical assistance for stream restoration projects designed to protect or restore the ecological processes that connect land and water while protecting human life and property. This philosophy is integral to all stream restoration activities in which the CWCB is involved. The flood recovery team responsible for these actions, known as the Stream Recovery Team, formed shortly after the September 2013 floods. The team included many state and federal agencies as well as technical consultants. The focus of the team was to implement emergency channel stabilization

projects, develop watershed coalitions, award master planning grants, participate in regular coalition meetings, and provide technical support. The watershed coalitions have completed the master plans, and they are prioritizing stream restoration projects. The Stream Recovery Team now exists to identify funding opportunities, coordinate multi-objective projects in order to leverage resources, and facilitate the implementation of flood resilient projects.

As one of its centerpieces, CDOT and CWCB are working collaboratively to treat stream restoration and highway recovery as a single process, rather than as separate activities. This allows for design and construction that not only complements the related environments, but also can save valuable taxpayer money while resulting in a more resilient design that will allow for both streams and highways to function better during the next flood. By focusing solutions on a watershed-based level, upstream and downstream activities are coordinated for better overall system design and operation. This presentation will demonstrate how treating rivers and highways as one system can reduce overall costs and result in more resilient designs. It will also show how DOTs and DNRs can work together to achieve shared goals.

Chris Sturm obtained his bachelors and masters degrees from the University of Georgia. He worked for several years in education around natural resources, until he landed at the City of Thornton, where he served as a Senior Water Resources Analyst for seven years. That job led him to his current position with the Colorado Water Conservation Board, an entity formed in 1937 to engage in water policy formation and water planning for the state. At the CWCB, Chris serves as the Stream Restoration Coordinator, a position he has held since 2007. In this capacity, he leads the CWCB's activities related to watershed restoration and flood protection. On Oct. 7, 2014, Governor John Hickenlooper recognized Chris's tireless actions since the flood by issuing a proclamation designating Oct. 7, 2014 as "Chris Sturm Day."



Gordon Gilstrap
President, Big Thomson Conservation District

The advantages of having landowner driven coalitions are well known but building these coalitions can be difficult. This session will focus on lessons learned from building the Little Thompson and Big Thompson coalitions including progress to date and next steps.

Gordon has been on the Big Thompson Conservation District board for 6 years and is currently President of the Board. He is also chairperson for the Big Thompson River Restoration Coalition and was the Chairperson for the Little Thompson Watershed Restoration Coalition until August of this year. Gordon's background includes thirty years of international management at Hewlett-Packard.



James White
Forester and Flood Recovery Team Lead, Arapaho & Roosevelt National Forests & Pawnee National Grassland, U.S. Forest Service

During the Colorado 2013 Flood the Roosevelt National Forest had 232 roads, 70 trails, four bridges and 42 facilities damaged or destroyed. Recovery has brought more than 50 partnerships to the Forest, working to restore and reestablish where reasonable while understanding that some sites cannot be rebuilt.

Numerous major transportation corridor projects are in all stages of permanent reconstruction. The largest projects are within the Big Thompson Watershed where three major efforts to rebuild and increase the watershed's resiliency are underway including the Idylwilde Dam site, U.S. Highway 34, and Larimer

County Road 43. The partnerships and personalities are ensuring a long-term resilient recovery of the road and river in conjunction with the road's final alignment.

Many of the National Forest System Roads will not be restored in their historic locations. Originating before National Forest lands were designated, these roads often accessed mines and timber sites and utilized river and stream floodplains. Current policy and environmental stewardship does not allow these roads to be reconstructed in the floodplains and stream channels and places the additional challenge of determining if and where a new road might be located to access Forest lands.

The Flood of 2013 has unveiled discrepancies in jurisdiction, ownership and financial responsibilities. The partnerships that continue to establish from the Federal to individual levels have allowed many of these issues to be resolved quickly and to the benefit of all as we fully realize the magnitude of this event. The Forest Service is committed to partnering for the long term to recover in this changed landscape.

James has been with the U.S. Forest Service on Colorado's Front Range since 1995. His primary focus has been in wildland fire management. A Colorado State University graduate in Natural Resources Management and Forestry, he is very interested in the complexities of managing an urban forest along the Front Range. Concerned with limited public access, fragmented landscapes and increased resources pressure, the opportunity to assist with the flood recovery effort was a welcomed challenge. James has been on the Arapaho and Roosevelt National Forests Flood Recovery Team since the event, first as one of many-headed out to a changed landscape to assess damage, then as the Community and Partnership Liaison, and now as the Flood Team Lead.

Session V

From Flood to Future ~ Plenary Panel Part II



Chris Carlson ~ Panel Facilitator

Civil Engineer, Public Works Department, City of Loveland



Bob Kimbrough

Associate Director, Hydrologic Data, U.S. Geological Survey

Excessive rainfall resulted in major flooding during September 9-18, 2013 in a large part of the South Platte River Basin, primarily north of and downstream from Denver. Flood-peak streamflows in the Denver metropolitan area were generally less than peaks from the historic 1965 flood. Although flooding was widespread throughout mountain streams in the Front Range, record flooding was only observed in the St. Vrain Basin, including one of its major tributaries Boulder Creek. A peak streamflow of 16,200 ft³/s was calculated for the Big Thompson River at mouth of canyon near Drake streamgauge, which is the second highest peak in 90 years of record and about one-half the magnitude of the peak of 31,200 ft³/s from July 1976. A streamflow of 60,000 ft³/s in the South Platte River at Fort Morgan suggests that a new record streamflow occurred in the main stem in the Greeley area, about 45 miles upstream from Fort Morgan. The current peak of record at a State of Colorado streamgauge at Kersey, 6.5 miles downstream from Greeley, is 31,500 ft³/s from 1973.

A network of 60 streamgages operated by the U.S. Geological Survey in the South Platte River Basin helped document the occurrence and magnitude of the flood. The streamgauge network is funded through

cooperative agreements between the USGS and 25 local governments or agencies with cooperators contributing 68 percent of the funding. Historical and real-time data from the network are publicly available from the USGS online database at waterdata.usgs.gov.

Bob Kimbrough is a hydrologist and an Associate Director for the USGS Colorado Water Science Center. He currently manages the USGS hydrologic monitoring program in Colorado that includes an extensive network of streamgages and water-quality monitoring stations. Bob has experience in collecting streamflow data in the plains and mountain environments of Colorado and in coastal streams in the Pacific Northwest. He is currently finalizing a report documenting peak streamflows from the September 2013 flood at 80 sites in eastern Colorado. Bob has a degree in Watershed Science from Colorado State University.

Robert Kimbrough, U.S. Geological Survey, Colorado Water Science Center, Denver Federal Center, MS-415, Bldg. 53, Lakewood, CO 80225. rakimbro@usgs.gov, 303-236-6902



John Giordanengo
Principal & Restoration Ecologist, AloTerra Restoration

As many land owners, agencies, and coalition volunteers and staff are still unearthing themselves from the unimaginable work of post-flood recovery, it is difficult to give pause to reflect on how we got where we are let alone where we are headed. This talk is an attempt to summarize the history of the formation of the Big Thompson River Restoration Coalition, Current Status, and (looking through the fog) a path towards the future. The role of the Thompson Watershed Alliance will be provided, as well as historic data from the Estes Valley Watersheds and current plans of the Big Thompson River Restoration Coalition.

From 18 years of applied and academic experience John has developed a broad skillset in the field of Ecological Restoration. Having begun his restoration career planting riparian shrubs and trees along the Green River in Washington State, he completed his MS degree in Restoration Ecology from Colorado State University in 2000. He has helped to plan and implement over 180 restoration-related projects, including riparian and wetland restoration, wetland delineation and ACOE permitting, road closure and obliteration, post-fire restoration, and alpine restoration. He is the lead author of a willow and cottonwood restoration guide and training for Colorado Front Range systems, and has co-authored several professional papers in the field of Ecological Restoration and natural resource research. John's contribution to the practice of riparian restoration earned him the Colorado Riparian Association Excellence in Riparian Management Award in 2010. John has served on the board of directors for the High Altitude Revegetation Organization, Colorado Native Plant Society and dozens of restoration and natural resources committees across the Front Range of Colorado. Responding to some of Northern Colorado's most severe natural disasters, John co-founded the Coalition for the Poudre River Watershed and the Big Thompson River Restoration Coalition.



Ben Swigle
Biologist, Colorado Parks and Wildlife

Severe flooding impacted rivers and streams in the Colorado Front Range during September 2013. Following the flood, rebuilding infrastructure was given top priority and permitting processes were suspended or expedited to facilitate reconstruction activities. In many cases, emergency reconstruction activities led to degradation of stream functions and aquatic habitat. Degradation was often associated with the creation of trapezoidal and heavily armored channels. Initial monitoring following the flood

showed variable impacts to fish populations, with changes in trout abundance ranging from -58% to +69% impacted by flood flows but not further altered during emergency reconstruction. Monitoring sites that underwent substantial channel alterations during emergency reconstruction had an average change in trout abundance of -95%.

Contrary to understanding flood flows did not decimate trout populations in the Big Thompson drainage, rather post-flood channel reconstruction was the primarily conduit responsible for the diminished abundance. This presentation will build upon results from initial pre-flood monitoring efforts by incorporating post-flood fisheries data collected immediately after the flood as well as 1-year post flood during the fall of 2014. Providing an emergency river channel blueprint that addresses natural channel design and dimension prior to the next major flood could greatly improve the efficiency and effectiveness of emergency flood response while reducing long-term maintenance and stream restoration costs.

Ben Swigle, a fishery biologist with Colorado Parks and Wildlife, is responsible for sport fish management in all public waters within the Big Thompson, St. Vrain, and Boulder Creek drainages. Ben has served as the primary representative from CPW directing river restoration work in the Big Thompson. Prior to joining CPW in 2005, Ben was a fishery biologist with the USGS in Klamath Falls, OR. Ben received a BS in Biology from the University of Notre Dame and a MS in Aquatic Ecology from the University of Nebraska-Lincoln.

*Benjamin Swigle, Colorado Parks & Wildlife 317 W. Prospect Road, Fort Collins, Colorado 80526,
ben.swigle@state.co.us*

Forum Staff, Board of Directors, Volunteers, & Scholarship Award

Forum Staff



Zack Shelley, Program Director

As the Forum's Program Director, Zack coordinates the Forum's education, outreach and water quality monitoring and assessment programs, data analysis, and reporting strategies. Before moving to Colorado in September 2006, Zack worked for the Florida Department of Environmental Protection (FDEP) in their Watershed Assessment Section. With FDEP, he developed sampling and analysis plans and conducted intensive field surveys of fresh and marine surface waterbodies and watersheds to determine potential impairment and corrective solutions/practices. In this capacity, he became familiar with water quality analyses, compliance with federal and state water quality standards, and the development of Total Maximum Daily Loads (TMDLs), 303(d) lists and 305(b) plans under the USEPA Clean Water Act and Florida Watershed Restoration Act. Zack's educational background includes a M.S. in Environmental Science and Policy from Johns Hopkins University and a M.S. in Health and Safety Management from West Virginia University. Zack resides in Loveland with his wife and daughter.



Tim Schmitt, Watershed Specialist

As the watershed specialist, Tim calibrates and maintains water quality sampling equipment and prepares field kits for the Forum's USEPA Volunteer Monitoring Program. Since June of 1998, Tim has worked full time as a technical advisor and trainer for Hach Company, a manufacturer of equipment and reagents for water quality testing. At Hach Company he has worked with a broad range of equipment used for sampling and analyzing water and as a trainer for other companies to utilize analytical laboratory equipment, use proper analytical techniques, as well as troubleshooting analytical procedures and equipment problems. Prior to moving to Colorado in 1997, Tim worked as a Wetlands Biologist for an environmental consulting firm in Nebraska, as well as working on a variety of limnology and water quality related projects as a research aide at the University of Nebraska. Tim graduated from the University of Nebraska - Lincoln, with a M.S. in Forestry, Fisheries and Wildlife, and a B.S. in Natural Resources - Water Sciences. Tim currently serves as the President of the Board for the Spring Canyon Water and Sanitation District, and has served on the Board since 2002. Tim resides in Fort Collins with his wife, daughter and son.

Forum Directors



John Matis, Chairman
U.S. Bureau of Land Management (ret.)

John served as geologist & hydrologist, environmental scientist, and manager in organizations dealing with pollution control & waste disposal operations; energy and mineral development; and environmental impact analysis. He served as Associate Director of the Colorado Alliance for Science while on loan from the US Bureau of Land Management (BLM); and concurrently served as Regional Education Officer for the US Department of the Interior at the Colorado School of Mines. He was assigned as BLM HAZMAT Program Lead in Denver, and subsequently served as Group Supervisor for Information & Communications Group with the National Applied Resource Sciences Center. He chaired National Recruitment Team for the BLM; served as primary BLM Lead and Coordinator for Tribal College programs; and served as SW Regional Recruiter for the BLM in Santa Fe, NM. Completed Federal Service with BLM in Santa Fe as Special Projects Officer & Geologist for the NM BLM Division of Mineral Resources. John also served as Faculty with the University of New Mexico, University College Sophomore Seminar Program; and served as Treasurer & Hydrogeologist for the Eldorado Area Water & Sanitation District (Santa Fe, NM).



Chris Harris, Vice Chairman
Tri-Districts-Soldier Filter Canyon Plant

Chris is the Plant Manager for the Soldier Canyon Filter Plant. The Soldier Canyon Filter Plant provides water to the Tri Districts. The Tri Districts consist of the East Larimer County Water District, Fort Collins-Loveland Water District and North Weld County Water District. Chris is a Colorado native with 13 years of experience in water treatment.



Gabri Vergara, Treasurer
Weld County

Gabrielle (Gabri) graduated from the University of Northern Colorado in 1994 with a Masters in Public Health. She lives in Greeley with her husband and two children. Gabri has been an employee with the Weld County Department of Public Health and Environment for the last 11 years. As the Solid & Hazardous Waste Education Specialist she works with the community in addressing the detrimental effects of improper disposal of solid and hazardous waste to the environment and humans. This

includes the promotion and marketing of Weld County's two household hazardous waste facilities and providing presentations to community groups to create a greater awareness of this issue. Gabri has participated in the Big Thompson Watershed Forum since 2003 as a board alternate and, most recently, as a regular board member, representing Weld County. Gabri is also a board member of the Big Dry Creek Watershed.

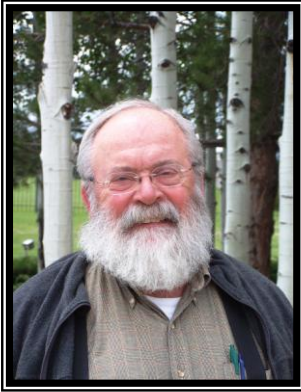


Ed Young
City of Greeley

Ed graduated from the University of Northern Colorado in 1970 with a B.A. in Biology and Chemistry teaching. He has been in the Water Treatment field since beginning as an Operator Trainee in Salt Lake City in December 1972. After working in the Tri-Districts and Loveland Water Plants, he presently holds the position of Plant Superintendent of Greeley's Boyd Lake Water Treatment Plant. In the 1980's, Ed served as an instructor and advisory board member of the Larimer County Vo-Tech Water Operator's training course and was an instructor in the Colorado Operator's Training Course held annually in Boulder. For stress relief, Ed plays keyboards for a local band and is active in his church. Ed and his wife, Deb, live in Loveland, where their four grandchildren keep life from getting too boring. Ed is a founding Director of the Big Thompson Watershed Forum, and has served on the Board since 1997.

Judy Billica
Northern Water

Dr. Billica began working for Northern Water in 2011 as a Water Quality Specialist. Prior to that, Judy worked for the City of Fort Collins for 13 years as Senior Process Engineer/Watershed Manager. Judy has also worked for consulting firms in Fort Collins and California, starting with her first consulting position in 1980 with HDR in Santa Barbara. During Judy's professional career, she has worked on a wide range of water quality-related projects, including managing, designing and conducting water quality studies of watershed and ground water systems; designing water and wastewater treatment processes; conducting full-scale and pilot plant drinking water treatment process optimization studies; and developing numerical models, conducting experiments, and performing tracer tests to better understand the movement of water and contaminants through natural and engineered systems. Judy received her M.S. and Ph.D. degrees in Civil Engineering from Colorado State University and her B.S. degree from the University of California at Davis. She is a registered Professional Engineer in Colorado.



Charles Olmsted
Professor Emeritus, University of Northern Colorado

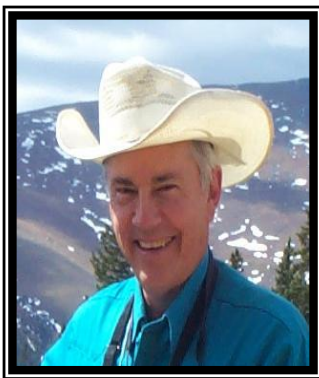
Dr. Olmsted retired from the University of Northern Colorado after 26 years of directing the Environmental Studies Program and teaching courses that focused on how people interact with and depend on the natural world for their long-term welfare. He received his undergraduate Biology degree from Earlham College, a M.S. in Physiological Plant Ecology from the University of Oklahoma and a Ph.D. in Ecosystem Ecology from the University of Colorado. His research interests have emphasized the maintenance of constrained natural ecosystems and how humans can use ecological principles to develop more sustainable patterns of living. He has a long history of involvement with conservation work and environmental education and has served on the Boards of Directors of the Colorado Alliance for Environmental Education, the Colorado Wildlife Federation, the High Plains Environmental Center at Centerra, the Colorado Native Plant Society, Defenders of Wildlife, and the National Wildlife Federation. His interests and involvement with the Big Thompson watershed and its resources span a variety of uses and locations. These include directing research on social trails in upper Forest Canyon and wildlife and tourism impacts in the lower meadows of the Park, fishing the reaches between RMNP and Drake, keeping a sailboat at Carter Lake, domestic use of the BT water supplied by CWCWD for drinking, cooking, etc., and viewing the lower floodplain as a major aesthetic component of the view from the passive solar

house he and his family constructed near the confluence with the South Platte.



Al Paquet
CH2M HILL, INC.

Al is a Senior Project Manager for CH2M HILL INC., with 19 years of experience as a civil engineer specializing in planning, design, and construction management to support water and wastewater treatment facilities. Al has worked on a broad variety of projects throughout Northern Colorado and the Southwest that address customer water quality concerns as well as compliance with State and Federal regulations for drinking water, reclaimed water, groundwater recharge, and treated wastewater effluent discharges. He has worked closely with local utilities to consider watershed and receiving stream water quality in providing sustainable solutions that meet project objectives and regulatory compliance. Al was the former Special Projects Manager for the City of Loveland Water Utilities Group, responsible for management of capital improvement projects for the City's water and wastewater treatment facilities. He has a Bachelor of Science degree from Northeastern University, Boston, MA, and is a registered Professional Engineer in Colorado and California. Al is a resident of Windsor, CO, and enjoys spending time outdoors with his wife and three sons.



David Jessup
Sylvan Dale Guest Ranch

David M. Jessup is co-owner of Sylvan Dale Ranch in Loveland, Colorado, where he introduces cattle and horses to guests, and guests to the ways of the West. He loves preserving open space, battling invasive weeds, catching wild river trout on a fly, singing cowboy songs, and telling stories about the American West – some of them true. Sylvan Dale is a 66 year old, 3200-acre working dude ranch that raises grass-fed beef for local consumption. David has managed two grants from the Natural Resources Conservation Service to implement rotational grazing by developing new water sources and fencing to increase the number of pastures on both private and national forest land, and to install two center pivots on the ranch's irrigated pasture, to conserve water. He worked to place eighty percent of the ranch lands, some 2200 acres, under permanent conservation easements. His dream is to build a sustainable, grass-fed cattle operation that restores health and diversity to the foothills ecosystem. David works with the Colorado Conservation Exchange (CCEX), an initiative to raise funds for conservation practices on working lands. Working with the Big Thompson Watershed Forum, he established a CCEX pilot project to measure and contain nutrient runoff from the ranch's cattle pens. He's a member of the Colorado and Loveland Historical Societies, the Oregon-California Trail Association and the Downtown Loveland Association. He serves on the Board of Embrace Northern Colorado, a regional organization seeking to develop choices about quality future

growth. His debut historical novel, *Mariano's Crossing*, published by Pronghorn Press in 2012, won first place for mainstream, character-driven fiction at the 2009 Rocky Mountain Fiction Writers Contest. He received a BA in Biology at the University of Colorado and an MA in Sociology at the University of California in Berkeley.



Ralph Trenary
US Army, Lt. Colonel (ret)

Ralph H. Trenary, III was born in Hardtner, Kansas near his Grandfather's Cherokee Strip Land Rush homestead farm. Before settling in Arvada, Colorado the Trenary family lived in Oklahoma, Kansas, Nebraska and Montana. Ralph graduated from Arvada West HS and the University of Northern Colorado in Greeley. This is where he met Holly Hershman, a Loveland pioneer family daughter. They were married in Loveland after Ralph's graduation from UNC and his commissioning in the US Army as a Second Lieutenant. Both Trenary children attended Loveland High School. Daughter Caroline is a student in the Business College at Colorado State University, and son Erik will attend the Colorado School of Mines starting in the fall of 2013.

Ralph is a 26-year Veteran of the US Army and Colorado National Guard. He retired as a Lieutenant Colonel in 2006. In 2004, Ralph received his Masters Degree from the US Naval Postgraduate School, Monterey, California. Among his 30 military awards and decorations are the US Air Force Space and Missile Badge,

and two awards of the US Army Meritorious Service Medal. Ralph established 1642 Innovation & Strategies as a sole-proprietor consulting firm in 2008. His specialties include: organizational design, public policy analysis, national security, international relations, local and regional economic development, Colorado water policy and community advocacy. As the President of the Grandview Estates Homeowners Association in Douglas County, Colorado, Ralph was a member of the Issue Committee that won voter approval to form the Grandview Estates Water Conservancy District in 2005. The traditional family get-away is to the cabin at the Hershman family homestead property in the Big Thompson Canyon. Irrigation maintenance and fence repairs are often balanced with hiking, fishing, barbequing and appreciating the wonders of the Colorado mountains.

Ralph's current activities include serving on the Loveland City Council, membership in Loveland's American Legion Post #15, and as a volunteer member of the Colorado Committee on Employer Support to the Guard and Reserves (ESGR). For fun and relaxation he plays trumpet in the Loveland Concert Band and Just for Kicks Big Band Jazz.



Tim Bohling
City of Loveland

Tim Bohling grew up in Loveland and attended college at Colorado State University in Fort Collins. He graduated in 2012 with degrees in Biology and Chemistry with a concentration in Environmental Ecology. Tim is a Water Quality Analyst with the City of Loveland, Department of Water and Power. He has been with the city for

several years. He started working in Open Lands during high school and acquired his position with Water and Power once he completed college. Along with his other duties he is responsible for the City of Loveland's source water monitoring programs. This includes general water quality sampling of the Big Thompson River, Green Ridge Glade Reservoir and preparation for the effects of a forest fire on the watershed. Tim enjoys backpacking and being outdoors. He recently married his college sweetheart and plans on settling down in Loveland.



Jill Oropeza
City of Fort Collins

Jill is the Watershed Specialist for Fort Collins Utilities and has worked in the Source Watershed Program since 2007. She is responsible for managing the source water quality monitoring programs on the Upper Poudre River and Horsetooth Reservoir in collaboration with the City of Greeley and the Tri-Districts to identify and address issues that affect drinking water treatment operations and watershed health. She also serves on the board of directors for the Coalition for the Poudre River Watershed.

Jill holds a Bachelor's degree in Environmental Science from the University of Kansas and Master's degree in Ecology from Colorado State University. Prior to her position with the City of Fort Collins, she worked on natural resource issues in the state of Colorado, including time spent working as an environmental consultant on groundwater pollution monitoring and clean up, several seasons as a field technician working on

ecological restoration and air quality monitoring projects in Rocky Mountain National Park and as a field botanist for the USFS Rocky Mountain Research Station on post-fire regeneration after the Hayman Fire, and as a project coordinator for

the Loch Vale Watershed NADP program (CSU, USGS, RMNP). In her free time, Jill enjoys playing in rivers, camping, skiing and relaxing at music festivals with her two boys and her husband.

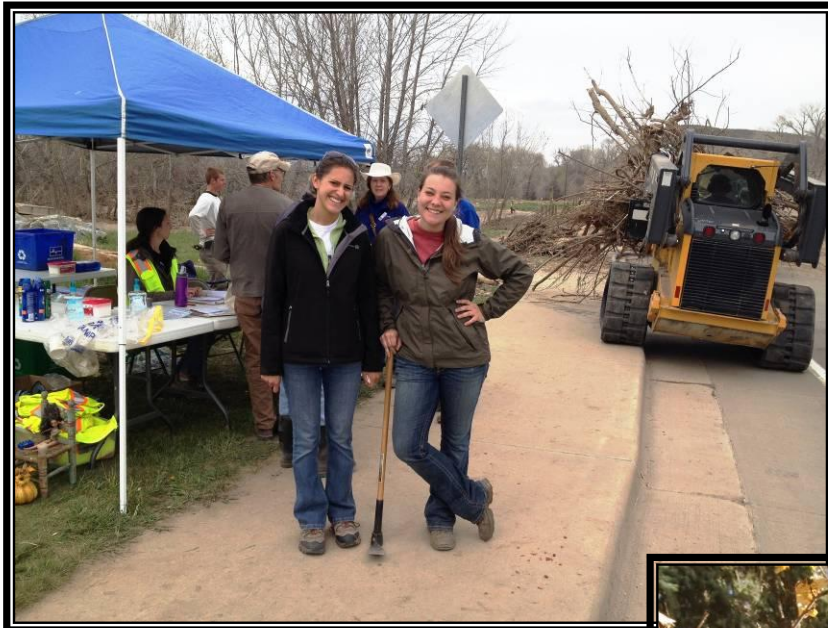
Program Volunteers



From L to R: Tim Schmitt (Fort Collins), Amanda Weber (CSU), Kyrstle Ervin (CSU), Eddie Trevino (Greeley), Robert Alexander (Greeley), Jeri Feil (Wellington), Fred Renner (Loveland), Clint Jones (Fort Collins) & Annelies DeGroot (Loveland).

Note pictured: Jennifer Stephenson (Windsor), Traci Shambo (Fort Collins), Joe Chaplin (Estes Park), Calvin Andrade (Greeley), Crystal Lesmeister (Fort Collins), Nicolette Lind (CSU) and Zach Dahlgren (Greeley).

Dave Cole
Environmental Scholarship Recipients



2013/14

Kali Arenas (left)
University of Northern Colorado
Earth Science Major

Amanda Weber
Colorado State University
Watershed Science Major

2014/15

Krystle Ervin
Colorado State University
Civil Engineering Major



14th Watershed Meeting Attendees

| Name | Title | Organization | Email |
|--|---------------------------------------|-----------------------------------|----------------------------------|
| Forum Board of Directors and Staff | | | |
| Bohling, Tim | Board Director | City of Loveland | tim.bohling@cityofloveland.org |
| Harris, Chris | BTWF Vice Chair | Soldier Canyon Filter Plant | charris@soldiercanyon.com |
| Hartman, Kathy | Watershed Meeting Coordinator | Big Thompson Watershed Forum | dkhumans@comcast.net |
| Jessup, David | Board Director | Sylvan Dale Ranch | davidj@sylvandale.com |
| Matis, John | BTWF Chairman | Retired, BLM, Loveland Resident | johnm80225@yahoo.com |
| Oropeza, Jill | Board Director | City of Fort Collins | joropeza@fcgov.com |
| Paquet, Albert | Board Director | CH2M HILL, INC. | Al.Paquet@CH2M.com |
| Schmitt, Tim | Watershed Specialist | Big Thompson Watershed Forum | tschmitt@hach.com |
| Shelley, Zack | Program Director | Big Thompson Watershed Forum | zshelley@btwatershed.org |
| Stephenson, Jennifer | Alternate Director (for JB) | Northern Water | jstephenson@northernwater.org |
| Trenary, Ralph | Board Director | U.S. Army (ret), City of Loveland | trenaryr3@gmail.com |
| Vergara, Gabri | BTWF Secretary | Weld County | gvergara@co.weld.co.us |
| Young, Ed | Board Director | City of Greeley | ed.young@greeleygov.com |
| Meeting Speakers | | | |
| <i>Conference Welcome ~ Mayor Cecil Gutierrez, City of Loveland</i> | | | |
| <i>Session I: Your River & Who Runs It ~ Functionality & Monitoring in the C-BT System</i> | | | |
| VanShaar, James | Water Resources Group Lead | U.S. Bureau of Reclamation | jgould@usbr.gov |
| Vincent, Esther | Water Quality Manager | Northern Water | evincent@northernwater.org |
| Shelley, Zack | Program Director | BTWF | zshelley@btwatershed.org |
| <i>Session II: The 2013 Flood ~ Impacts on Operations & Infrastructure</i> | | | |
| Matkins, Chris | Water Utilities Manager | City of Loveland | chris.matkins@cityofloveland.org |
| Johnson, Amy | Project Manager, Water Resources Eng. | Northern Water | ajohnson@northernwater.org |
| Peterson, Mark | Engineering Technician | Larimer County Engineering Dept. | mpeterson@larimer.org |
| <i>Session III: 2015 State of the Watershed Water Quality Report</i> | | | |
| Hawley, Christine | Environmental Engineer | Hydros Consulting, Inc. | hawley@hydrosconsulting.com |
| <i>Session IV: From Flood to Future ~ Plenary Panel Part I</i> | | | |
| Carlson, Chris | Civil Engineer | City of Loveland Water & Power | crhis.carlson@cityofloveland.org |
| Sturm, Chris | Stream Restoration Coordinator | Colorado Water Conservation Board | chris.sturm@state.co.us |
| Gilstrap, Gordon | President | BigThompson Conservation District | gordon@bigthompson.org |
| White, James | Forester/Flood Recovery Team | U.S. Forest Service | jamesawhite@fs.fed.us |
| <i>Session IV: From Flood to Future ~ Plenary Panel Part II</i> | | | |
| Carlson, Chris | Civil Engineer | City of Loveland Water & Power | crhis.carlson@cityofloveland.org |
| Kimbrough, Bob | Associate Director | U.S. Geological Survey | rakimbrow@usgs.gov |

| Name | Title | Organization | Email |
|--------------------------|-------------------------------------|--|------------------------------------|
| Giordanengo, John | Restoration Ecologist | AloTerra Restoration | john@aloterraservices.com |
| Swigle, Ben | Biologist | Colorado Parks & Wildlife | ben.swigle@state.co.us |
| Meeting Attendees | | | |
| Alexander, Bob | Industrial Pretreatment Technician | City of Greeley WPC Facility | bob.alexander@Greeleygov.com |
| Anderson, Dave | Water Quality Engineering Tech III | Northern Water | danderson@northernwater.org |
| Ashe, Dominique | Student, Freshman | Ecosystem Sciences & Sustainability | domaav@gmail.com |
| Aungst, Diana | | Weld County Planning, Building, Insp. Dept. | daungst@weldgov.com |
| Baker, Dennis | Distribution System Dept. Manager | Northern Water | dbaker@northernwater.org |
| Beehler, Diana | Water Quality Manager | Town of Estes Park | dbeehler@estes.org |
| Boles, Jeff | Water Superintendent | Town of Estes Park | jboles@estes.org |
| Call, Jeremy | | Logan Simpons Design | |
| Carol Webb | Water Resources & Treatment Manager | City of Fort Collins, Water Resources | cwebb@fcgov.com |
| Carpenter, Jean | Vice President | Friends of Larimer County Parks & Open Lands | jeancarpenter@mac.com |
| Carpenter, Wayne | | Friends of Larimer County Parks & Open Lands | jeancarpenter@mac.com |
| Cole, Dave | Dave Cole Scholarship Committee | Retired BTWF Director | mapguycole@aol.com |
| De Gregorio, Mark | Education / Outreach Specialist | Rocky Mountain National Park | Mark_De_Gregorio@nps.gov |
| Dewey, Greg | Civil Engineer | City of Loveland, Water & Power | greg.dewey@cityofloveland.org |
| Dickmeyer, Scott | Water Treatment Plant Manager | City of Loveland Water and Power | scott.dickmeyer@cityofloveland.org |
| Ervin, Krystle | CSU, Jr. | Environmental Scholarship Recipient | krystleervin@yahoo.com |
| Eshelman, Chris | Water Resources | Town of Estes Park | |
| Feil, Jeri | Engineering Technician | Larimer County Engineering Dept. | jfeil@larimer.org |
| Franzone, Leo | Student/Intern | Big Thompson Conservation District | leofranzone@googlemail.com |
| Gandrud, Kristian | Student, Sr. | CSU, Watershed Sciences | kgandrud@rams.colostate.edu |
| Ganzer, Kathleen | Chemist | City of Fort Collins, Water Treatment | kganzer@fcgov.com |
| Gibbens, Jerry | Project Manager | Northern Water | jjgibbens@northernwater.org |
| Greg Smith | Lakewood Field Office Chief | U.S. Geological Survey | gsmith@usgs.gov |
| Griebbling, Scott | Water Resources Engineer | Headwaters Corporation | griebblings@headwaterscorp.com |
| Halley, Alan | Field Services Department Manager | Northern Water | ahalley@northernwater.org |
| Haworth, Kelsey | Hydrologist | Quantum Water & Environmental | kelsey@quantumwaterco.com |
| Heath, Jared | Watershed Technician | City of Fort Collins, Utilities | jheath@fcgov.com |
| Hecker, Ruth | Water Quality Supervisor | City of Loveland Water Quality Lab | ruth.hecker@cityofloveland.org |
| Hickey, Patrick | Water Quality Specialist | Colorado Department of Transportation | |
| Howard, Larry | Water Resources Engineer | City of Loveland Water & Power | larry.howard@cityofloveland.org |
| Hutchinson, Marcella | Colorado Watershed Coordinator | USEPA Region VIII | hutchinson.marcella@epa.gov |
| Janett, Gina | Principal | Gina Janett Consulting, LLC | ginacao@frii.com |
| Joe Chaplin | Stormwater Quality Specialist | City of Loveland-Public Works | chaplj@ci.loveland.co.us |

| Name | Title | Organization | Email |
|---------------------|--------------------------------------|---|-------------------------------------|
| Johnson, Pamela | Educational Reporter | Loveland-Reporter Herald | johnson@reporter-herald.com |
| Jones, Clint | Engineering Technician | Larimer County Engineering Dept. | jonescd@larimer.co.us |
| Kempton, Mark | Water Production Manager | City of Fort Collins, Water Treatment | mkempton@fcgov.com |
| Lind, Nicolette | Intern | Larimer County Engineering Dept. | - |
| Lynch, Tim | Engineering Technician | Northern Water | tlynch@northernwater.org |
| Macsalka, Natalie | District Manager | West Greeley Conservation District | natalie.macsalka@wgcd.org |
| Martin, Michelle | | Weld County Planning, Building, Insp. Dept. | mmartin@weldgov.com |
| Marusin, Nick | Water Quality Analyst | City of Loveland Water Quality Lab | nick.marusin@cityofloveland.org |
| Mauer, Sandy | Water Quality Analyst | City of Loveland Water and Power | erica.mcdaniel@cityofloveland.org |
| McDaniel, Erica | Water Quality Specialist | City of Loveland Water and Power | sandy.mauer@cityofloveland.org |
| McDonald, John | Silver Lake HOA | City of Loveland | jcmcd4july@gmail.com |
| McDonald, Ruth | Silver Lake HOA | City of Loveland | rlmcd2k@hotmail.com |
| McKenzie, Jana | Principal | Logan Simpons Design | jmckenzie@logansimpson.com |
| Mitchell, Randy | Water Treatment Plant Superintendent | City of Greeley Water & Sewer Dept. | randy.mitchell@greeleygov.com |
| Mitros, Tim | Project Manager | City of Colorado Springs | tmitros@springsgov.com |
| Parr, Carol | Environmental Manager | Colorado Department of Transportation | vicki.sladek@state.co.us |
| Peercy, Rachel | Water Quality Analyst | City of Loveland Water Quality Lab | rachel.peercy@cityofloveland.org |
| Petrik, Jen | | Weld County Planning, Building, Insp. Dept. | jpetrik@weldgov.com |
| Petrzelka, Jen | Water Resource Administrator II | City of Greeley Water & Sewer Dept. | jen.petrzelka@greeleygov.com |
| Piske, David | Conservation Chair | Rocky Mountain Flycasters, TU | dpsk@aol.com |
| Raines, Richard | Water Resources Manager | Soldier Canyon Filter Plant/Tri-Districts | rraines@soldiercanyon.com |
| Renner, Fred | Ret.- Big T. Water Commissioner | Retired-Division of Water Resources | frenner@frii.com |
| Schipanski, Nick | Water Quality Specialist | Colorado Department of Transportation | |
| Shambo, Traci | Engineering Technician | Larimer County Engineering Dept. | tshambo@larimer.org |
| Shull, Elizabeth | Student, Jr. | CSU, Watershed Sciences | lizshull@aol.com |
| Smith, Sarah | Water Resources Engineer | Northern Water | ssmith@northernwater.org |
| Stalker, Michelle | Technical Specialist | City of Loveland-Water & Power | michelle.stalker@cityofloveland.org |
| Strazhko, Anastasia | Water Resource Engineer I | City of Greeley Water & Sewer Dept. | anastasia.strazhko@greeleygov.com |
| Tamburelli, April | Student/Intern | City of Loveland Water and Power | |
| Tedder, Cliff | Assistant Water Superintendent | Town of Estes Park | ctedder@estes.org |
| Thornhill, John | Water Resources Operations Manager | City of Greeley Water & Sewer Dept. | john.thornhill@greeleygov.com |
| Treviño, Eddie | Industrial Pretreatment Technician | City of Greeley WPC Facility | eddie.trevino@Greeleygov.com |
| Von Thaden, Ben | Water Quality Intern | Northern Water | bvonthaden@northernwater.org |
| Warren Mesloh | Manager | NFRWQPA | warren.mesloh@nfrwqpa.org |
| Weber, Amanda | CSU, Jr. | Environmental Scholarship Recipient | amandaweber9@gmail.com |

Special Thanks to the Forum's Major Contributors and Laboratory Service Providers

City of Fort Collins
City of Fort Morgan
City of Greeley
City of Loveland
Larimer County
NFRWQPA
Northern Water

Thompson School District R2J
Town of Estes Park
Town of Milliken
Tri-Districts
Weld County
U.S EPA Region VIII
U.S. Geological Survey

*'And Thank You to our Speakers
for sharing your time, knowledge and experience at this year's watershed meeting!'*

PLEASE BECOME OR CONTINUE TO BE A PART OF THE LEADING WATER QUALITY PROTECTION ORGANIZATION IN OUR REGION

With your **tax-deductible** financial support in 2011, we will be able to gather an even wider array of water quality monitoring data, produce better periodic assessments and conduct more community outreach and education.....

We have established several different levels of individual and corporate support:

| | | | |
|--------------|----------------|------------|-------|
| Major Funder | \$1000 or more | Sustainer | \$100 |
| Sponsor | \$500 | Individual | \$25 |
| Patron | \$250 | Student | Free |

Please send a check for your annual donation *along with your email address* to:

***Big Thompson Watershed Forum
800 South Taft Avenue
Loveland, CO 80537
Phone: (970) 613-6163
Fax: (970) 613-6168***

***Email: zshelley@btwatershed.org
Website: www.btwatershed.org***

Your cancelled check may be used as a receipt or we can provide one for you.

Thank You Very Much for Your Support!