



OCTOBER 2009

CLARION

A Publication of the Colorado Lake and Reservoir Management Association

Sustaining Colorado Watersheds: Thriving in Challenging Times October 7-9 2009, Vail Cascade Resort and Spa, Vail, CO

The fourth annual Sustaining Colorado Watersheds conference in Vail was a huge success. Despite a government furlough day, nearly 200 participants attended. The numbers were slightly down from last year, but we exceeded our goal of 150. Thank you to those of you who attended!

In acknowledgement of today's tough economic climate, the 2009 conference theme was Thriving in Challenging Times. The conference began with a multi-perspective panel with state and federal agencies. Allen Green, State Conservationist at NRCS, Alexandra Davis, Assistant Director for Water at DNR, and Steve Gunderson, Director of the WQCD each discussed how their agencies are being impacted by state and federal budget deficits. The panel was moderated by a lively Chris Trees of the Colorado River District. The evening took on a lighter note when Ken Wright, Wright Water Engineers, gave a slide show on the ancient irrigation systems of Machu Picchu. Taylor Hawes, Director of the Colorado River Program with The Nature Conservancy, gave a keynote lunch presentation on how non-profits can be effective by doing more with less. In a slight change of pace, Thursday evening we moved to the Donovan Pavilion for food and drinks with the Eagle River Trout Unlimited Chapter. The beer was donated by New Belgium Brewery.



Vic Lucero listens intently to Greg Naugle, WQCD, discuss water quality standards.

CLRMA was the conference chair this year. In return for this honor, CLRMA president Sarah Sauter gave the opening remarks and facilitated by-weekly conference calls with members from the partner organizations: Colorado Watershed Assembly, Colorado Riparian Association, Colorado Foundation for Water Education, and AWARE Colorado. Travis Bray, CLRMA past-president, organized the silent auction which included lift tickets, wine, and Patagonia waders amongst other things. Elizabeth Brown, CLRMA secretary, played a critical role in coordinating all the speakers. Thanks to Travis, Elizabeth and the partner organizations for making this year the best conference yet.



We are still working on next year's date and location. The conference committee is considering moving the conference back to the first week of November. We are also looking at alternative locations such as Steamboat Springs and Copper Mountain. If you have any preferences, please send Sarah Sauter an email (sarah@coloradowater.org).

Please join us next year for another wonder fall conference. Stay tuned, the date and location will be announced shortly.

President's Doc – Fall 2009 by Sarah Sauter

How quickly time flies when you're having fun! It is hard to believe that the year is nearly over. The aspen have dropped their leaves and snow is starting to stick in the high country. We've had a great year, but we're not done yet. Tuesday, November 10 is the CLRMA Fall Conference & Annual Awards Luncheon at the Thornton Recreation Center. If you haven't done so, please register at www.clrma.org.

CLRMA's 2009 events included a Spring Luncheon, Lake Appreciation Day at Ridgway Reservoir and Barr Lake, a Rockies game, and the Sustaining Colorado Watersheds conference. Thank you to all the CLRMA members who made these events possible – especially Elizabeth Brown, Steve Lundt and Shelley Stanley. We still have one event coming soon, our fall conference. Thanks must go to Laurie Rink for her efforts in putting the program "In-Lake Management Techniques" together. The meeting will occur on November 10th at the Thornton Recreation Center. The agenda and registration form is located on the CLRMA website under the "Events" tab at the top of the home page.

This year, CLRMA decided not to provide student scholarships. Instead, we worked with the Colorado Foundation for Agriculture to co-sponsor an issue in the Colorado Reader. This issue, entitled Colorado's Water Supplies at Risk will focus on aquatic nuisance species; will be published in February 2010. Please keep your eyes out for this great resource. Thank you to CLRMA members Shelley Stanley, Sarah Clements, and Elizabeth Brown for the hard work and creativity you put into this issue. I can't wait to see the final product.

A notable event of the year in the lake management world is the first issued permit for alum treatment in Colorado. This summer, the WQCD issued a permit for the Big Elk Meadows Association to add alum to two of their lakes to treat eutrophication. CLRMA supports in-reservoir alum treatment if done correctly and as part of a comprehensive nutrient management plan. Thank you to Steve Lundt for being so active on this cutting-edge issue.

You may have noticed that CLRMA has a new website. Sharon Campbell has been working with our webmaster to give the website a facelift. Please check out the new website and let us know what you think. CLRMA is also looking for a student intern to help us integrate the Colorado Volunteer Lake Monitoring database with the CLRMA website. The internship will focus on building an interactive map that highlights lakes with volunteer data. If you know of any qualified students, please send them our way.

Finally, with changing years comes changing faces. After five years as a board member, Travis Bray will be stepping down. Thank you Travis, for all that you've done for CLRMA. New and second term board members for 2010 will be confirmed at the fall conference. Shelley Stanley will step in as next



year's CLRMA President. CLRMA is lucky to have such a talented and dedicated president. I know Shelley will be great.

CLRMA is fortunate for the amazing volunteers who help keep the organization running. We're now in our thirteenth year and the future looks great. Thank you, to all the Board members (past and present) who have donated their time to making this a successful organization. As president, I have enjoyed working with you all.



REFLECTIONS: An Interview with Pat Raney, Grand Lake, Colorado, by Sarah Clements, CLRMA Western Slope Director

I first meet Pat Raney in Grand Lake the summer of 1996. I credit her and Stoddard White (please see article below) for the citizen-based volunteer water quality monitoring program on Grand Lake and introducing me to NALMS and CLRMA. Pat Raney continues to be a strong voice in the Grand Lake community for water quality and is currently involved in CLRMA's Colorado Volunteer Lake Monitoring Program through Grand County's Volunteer Secchi Program.

How did you get involved with taking Secchi disk measurements and water quality monitoring on Grand Lake?

I started doing water quality sampling when I first moved to Grand Lake in June of 1996. I had been living in Colorado Springs where I developed a middle school curriculum for the Colorado Springs Water Department. Through my research I learned all about trans-mountain diversion, the history of water in Colorado, and about water-waste water treatment issues. Before I moved to Colorado Springs, I had lived in the Midwest so I was fascinated by the way water was managed in the West.



I met Stoddard White at a water quality meeting in Granby and began helping him do water sampling on Grand Lake. Stoddard was a volunteer who was trained by the Water Quality Control Division. They supplied him with the necessary equipment and provided sample testing. While we took Secchi measurements, we did much other sampling as well using a probe to measure temperature and dissolved oxygen down to 65' below the surface. We would go out on the lake every Friday morning at 8 am. I still try to get out to do the Secchi sampling once a week during the summer and early fall.

After the town of Grand Lake put in the storm drain in the late 1990s, Stoddard and I also took samples of the run-off into Grand Lake under the supervision of the Water Quality Control Division. These samples were analyzed by the Water Quality Control Division. Luckily the town is now in the process of installing a proper storm drain system to replace the late 1990s one. This is a very important commitment from the town to protect Grand Lake.

I have been involved in the Three Lakes Watershed Association activities since 1996, and am now also a member of the Greater Grand Lake Shoreline Association. I have attended two NALMS conventions -- one in Banff, Canada and one in Madison, WI. I always enjoyed those gatherings and learned a lot about water quality issues in other areas.

What changes have you observed over the years in water quality and clarity in Grand Lake?

I have definitely noticed that the water quality of Grand Lake was degrading in the past 14 summers. When we moved to Grand Lake (1996), we could see the rocks on the bottom of the lake very clearly. I remember this because our first summer on the lake, when my daughter-in-law's sunglasses fell into the water off the end of the dock, we could clearly see them resting on the bottom. We tried to dive down to retrieve the sunglasses, but the water was too deep. The sunglasses are still on the bottom of the lake, but we can't see them any more.

We now have weeds growing in the shallow areas around our dock and in our boat house. The rocks are also covered with a fuzzy, slippery scum (algae) so my grandchildren don't like to walk into the water anymore. We no longer can keep our ladder in the water because it would also get covered with the slippery scum (algae).

What actions do you think need to occur to improve the water clarity in Grand Lake?

*Interviewer's Note: Pat Raney asked that I include some of John Stahl's information on clarity in Grand Lake and the proposed tunnel options. A link will be set up on the CLRMA website to the Greater Grand Lake Shoreline Association website where the noted information can be reached.

How can other people (the community) get involved in helping to improve water clarity in Grand Lake?

The community of Grand Lake can help by learning about how the water diversion system works and becoming aware of the problems. They are welcome to join the Three Lakes Watershed Association and/or the Greater Grand Lake Shoreline Association for more information on how to get involved.



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Ask the *Lakespert* by Steve Lundt



Q: *It seemed like we had a wetter and cooler summer this year; were the lakes and reservoirs also cooler this year?*

Thanks, Cool Hand Luke (Wideawake, CO)

A: The logical answer would be yes. However, the thermodynamic properties of water are such that it takes lots of energy to either cool or heat water. A “cooler” summer may be true for air temperature but the angle of the sun, the infrared waves, and the length of day during the summer did not change and these solar properties really determine water temperature for large bodies of water, not a perceptive change from the normal seasonal air temperature.

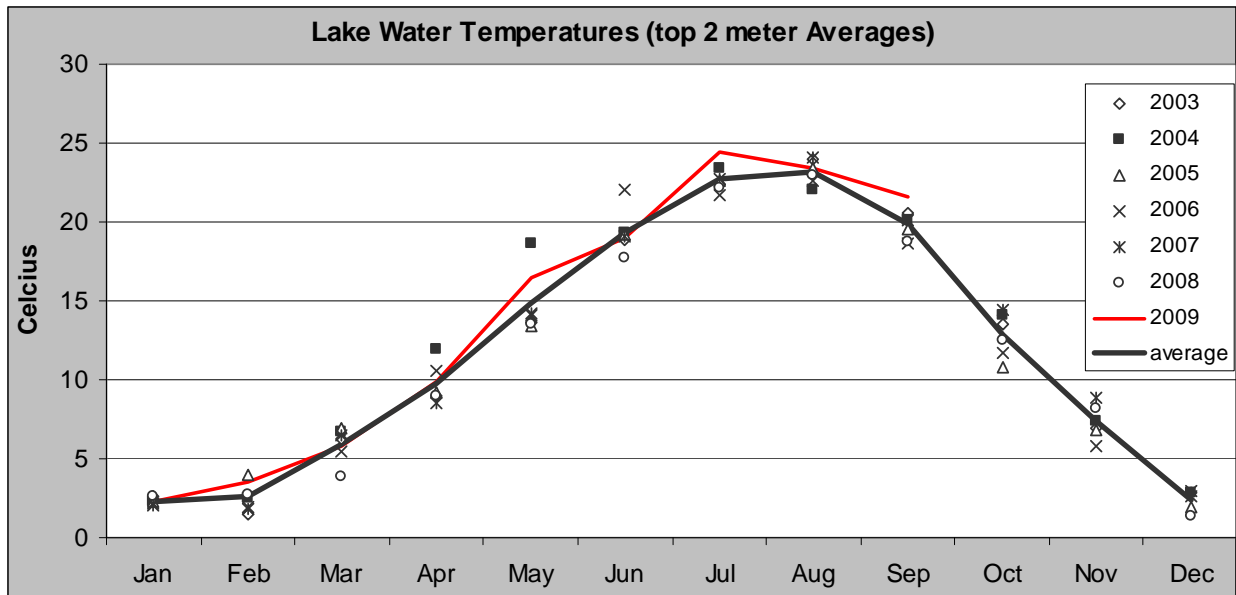
An example of lake water temperature is graphed below indicating that epilimnetic temperatures were not much different from other, hotter and dryer years. In fact, July and September of 2009 were slightly above average for water temperature.



There is slight variability from year to year, but it is not much. This difference from year to year can probably be explained by lake/reservoir management changes in inflow and outflow schedules, rather than by air temperature.

Possibly on any given day at noon, the surface temperature could be warmer or cooler because of air temperature but the overall temperature regime of a lake stays pretty consistent year to year thanks to the relatively consistent orbiting pattern around the sun.

Now we just need to see how this winter will go, cooler or warmer than normal?



CLRMA Spotlight Questionnaire – Craig Wolf, CLRMA 2010 President-Elect

Age: 44

Yrs w/ CLRMA/NALMS: 6 years for both

Yrs in CO: 32

What do you do: I am an aquatic ecologist working with GEI Consultants, Inc, and see a variety of aquatic resource issues cross my desk, but I specialize in those related to limnology.



Family: My wife's name is Michele, and I have two boys – Caleb (7) and Jacob (4). My mother and sister also live in the Denver metro area.



When I'm not working I am... I have been performing an extreme makeover on our house from landscaping to the master bath, which means I spend most of my weekend at Lowes.

Your idea of happiness: Listening to elk bugling on a warm Colorado fall day, camping in the remote places of Colorado, traveling around the south island of New Zealand

Not many people know that... That one day I would like to build a log cabin home

What do I like to do most: I enjoy shooting black powder rifles from my flintlock to my Sharps

If I won the lottery: It wouldn't change my lifestyle, but it would eliminate our debt. I would also help out our family in their financial needs and squirrel away the rest.

Last book I read: Endurance by Caroline Alexander

What political office: I have absolutely no political aspirations

Toughest aspect of my job: Being able to turn the job off at the end of the day

What famous person would you like to meet most: Theodore Roosevelt

CVLM Program – 5th Year of Monitoring a Success – Thank You! By Steve Lundt, CLRMA CVLM Coordinator

The Colorado Volunteer Lake Monitoring Program ended its 5th year in September. Again, a handful of dedicated lake lovers sent in Secchi depth data from June to September. Every year, more and more water clarity readings are being recorded and this year was no exception. CLRMA is very appreciative of the volunteer's efforts, and we thank everyone who participated this year.

The CVLM data will be summarized over the winter and individual lake report cards will be sent out summarizing the data, as well as ranking all the lakes based on clarity. Volunteers, please keep track of your Secchi Disk and paper work. Make sure if you are not participating next year to contact Steve Lundt (slundt@mwr.dst.co.us) or find a replacement.

The Colorado Water Quality Control Division has acquired a couple of In-Situ, multi-parameter probes with the intention of loaning them out to lake volunteers who don't have access to such equipment. Getting water column profile data for temperature, dissolved oxygen, and turbidity on some of these volunteer lakes for the first time will be exciting.

Final note, a new feature has been added to the updated CLRMA website – data entry. Volunteers in 2010 will not be able to send their data by filling out the form on the web. Hopefully this will help with the transfer of data and make it easier for volunteers.

Thanks again for all of the volunteers who helped in 2009.



Cherry Creek Reservoir volunteer Jim Stokes sharing a disk with former Lieutenant Governor Jane Norton.

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Take me out to the ball game..... by Shelley Stanley

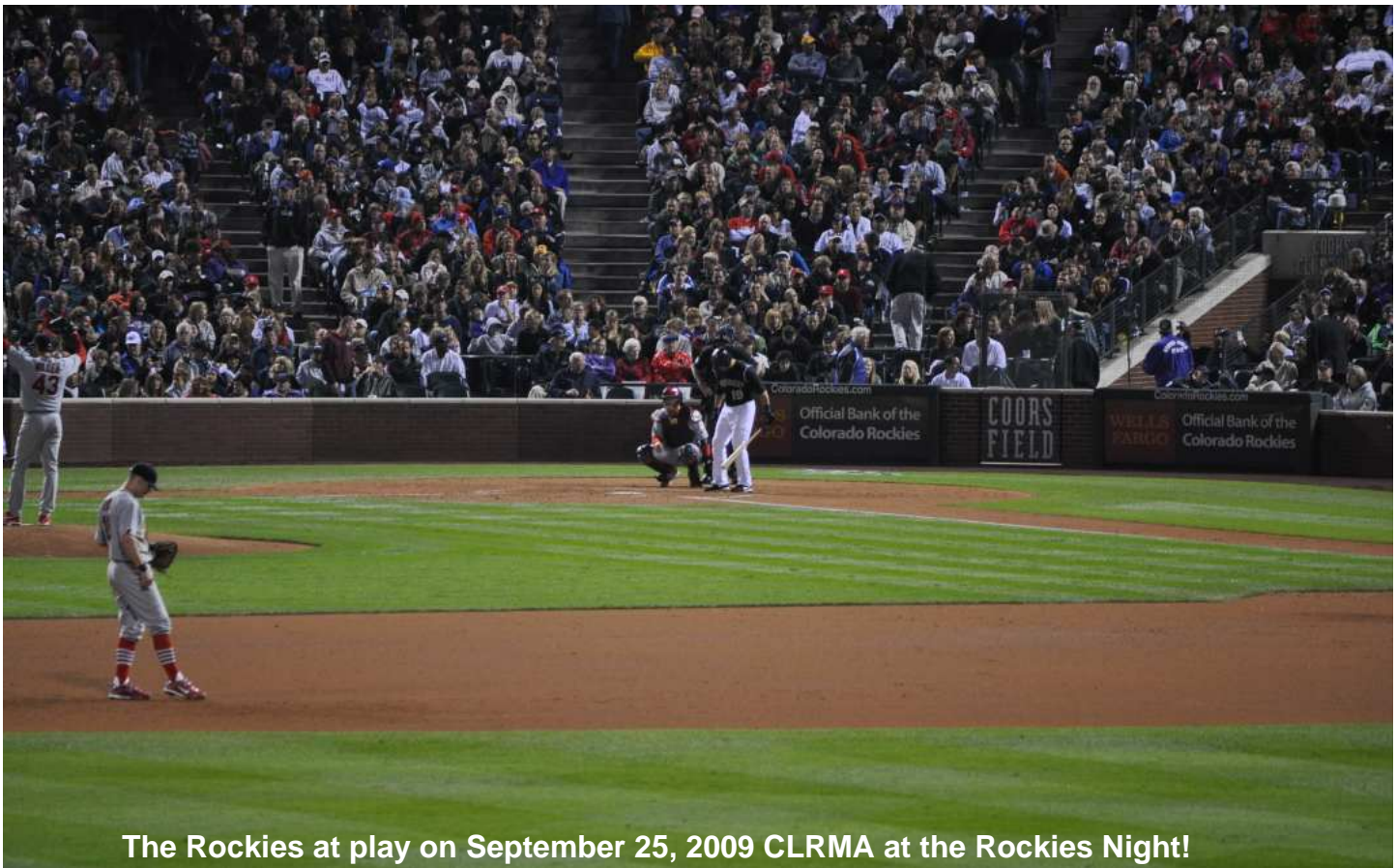
The second annual Fall CLRMA Rockies game was September 25, 2009, Rockies vs. Cardinals. Rocktober was in the air, a play-off spot on the line! With a beer in one hand, nachos in the other, 35 CLRMA members cheered the Rockies on to a nail biter finish. Rockies won by one run in the last inning. The game was well played; the field was beautiful, the summer night was just right. If you are expecting a play-by-play, you might want to quit reading now. When I go to a game (any sports game) I take a more holistic view. This is another way of saying I am in it for the entertainment value, greasy food and a couple of cold ones. Sure, everyone enjoys watching a well played game but I also enjoy the excitement, watching the crowd, shouting at something other than my kid, it's just plain fun and I learned quite a bit too.



I learned that Chris Knud-Hansen could be an umpire; he knows what seemed to me to be all the rules. Chris is also very patient and willing to answer many questions from the not so learned (i.e. the writer). My two cents, I think that four foul balls should be enough, call the batter out already. I learned that teenage boys really do eat their weight in food daily. Note to Travis Bray's boss, if you



are reading this, give the man a raise, his boys ate at least two hot dogs, a burger, nachos, peanuts, and an undetermined number of drinks each. This in a two hour game! I learned that it takes at least one uncle, two aunts, two parents and most of the CLRMA moms to keep an eye on a four year old. This same four year old was doing a great job of building up his immune system by eating peanuts off the stadium floor. My guess is he won't be getting the flu this season. I learned that an eighteen month old girl child can charm the socks off of just about anyone that she bats her beautiful green eyes at, myself included. I learned that grown children still enjoy their parents company and most importantly, I learned that a ball game is a great place to reconnect to friends and family. Oh, the fireworks were pretty spectacular too. Hope to see you next year.



The Rockies at play on September 25, 2009 CLRMA at the Rockies Night!



Travis Bray family



Elizabeth Brown family



Lake Appreciation Month in Grand Lake – Past and Future by Sarah Clements



Summertime in Grand Lake is hard to beat, especially in July during Lake Appreciation Month. Grand Lake means fishing, sailing, boating, fun, a place to walk, socialize, think; be closer to nature; see wildlife; and in general enjoy the great outdoors. For many people, Grand Lake has been a summer tradition dating back to the native Ute tribes who crossed the mountains with travois to reach their summer residence. The Native Americans called Grand Lake, Spirit Lake and held it sacred. Early settlers changed the name to Grand Lake reflecting its designation as the headwaters of the Grand River. Miners came and went up to Lulu City and Teller City, but found few if any riches. After a brief stint as the County Seat, the miners moved on leaving the area to the few remaining year-round residences and the summer tourists once again.

In 1902, the Grand Lake Yacht Club was founded, bringing organized sailing to the lake. Early photos show a mixture of rowboats, dories, and sailboats dotting the lake with the

ladies wearing dresses. In 1915, the creation of Rocky Mountain National Park (RMNP), adjacent to Grand Lake brought more summer visitors. An estimated 1 million people visit RMNP's West Entrance and the Grand Lake area annually. In 1921, the river was renamed the Colorado River for its red color in Spanish. In 1922, the Colorado River Compact set forth Upper and Lower Basin water rights determined in distance states that reached clear to the snow fed rivers and lakes feeding Grand Lake. The 1930's –1950's brought depression, drought, the building of the Colorado – Big Thompson (C-BT) Project, and change to Grand Lake. No longer the only lake in the area, the C-BT created three linked reservoirs carved from the granite and hay meadows.

Grand Lake, Colorado's largest, deepest (268 ft) natural lake is a jewel among jewels and is still held dear to many people. Though most ladies no longer tour the lake in long flowing dresses, summer events like the Wooden Boat Show, Arts and Crafts Fair, the Bluegrass Festival, the Grand Lake Yacht Club Regatta, and the Buffalo BBQ and Western Week are a tradition each year. This year's Western Weekend activities moved down to the lake's shore bringing folks in more direct contact with the lake and water. A 5K run, kid's games, storytellers, live music throughout the weekend, square dance demos, a horseshoe tournament, and of course, the Buffalo BBQ played out to the backdrop of



sailboat races, water skiers, canoes, kayaks, and paddleboats. There truly was something for everyone.

This next year, 2010, will be five years since CLRMA held the First LAM celebration and activities on the shores of Grand Lake. So come join us next July at the CLRMA booth for the LAM celebration during the Buffalo BBQ Western Weekend up in Grand Lake! We'll save some buffalo for you.

