



Fall 2021
C.L.S.P.I.A.

Rumsey, Lake Levels, Rainfall, Water, and Clear Lake State Park

As I walked through the park this past spring and summer, I couldn't help but notice the effects of the drought on the landscape and the fairly rapid drop in the level of Clear Lake and it prompted me to write this article. Although I'm sure that most of you are familiar with how the level of Clear Lake is measured, I thought I would give you a quick refresher on a little of that history, in addition to some significant high and low lake levels, a bit of rainfall data, some information/calculations on just how much water the lake holds, and the effects of the drought on the park's plant and wildlife. Hopefully this article will be somewhat informative and mildly entertaining.

In 1873 Captain Rumsey established the Rumsey Gage to measure the level of the lake. Zero Rumsey, the natural low water level of the lake, was equal to an elevation of 1318.257 feet above mean sea level. So, as an example, when someone says the lake is at 3 ft. Rumsey they mean the lake is 3 ft above zero Rumsey and at an elevation of 1321.257 feet above sea level.

At zero Rumsey the lake has a surface area of 39,170 acres (approx 61 square miles) and contains 842,000 acre-feet of water. One acre-foot of water equals 325,850.943 gallons (often rounded up to 326,000 gallons). When you do the math, 842,000 acre-feet of water equals 274,366,494,006 gallons of water.

At 7.56 ft Rumsey, the lake is considered full and has a surface area of approximately 43,790 acres (approx 68.4 square miles) and contains approximately 1,155,000 acre-feet of water. Once again, if you do the math the lake contains 376,357,839,165 gallons of water.

The average household uses 138 gallons per day (per Google) or 50,370 gallons per year. So if we assume that every last gallon of water in Clear Lake could be used for domestic consumption (which it can't for a myriad of reasons), and we do the math we get the following:

Zero Rumsey at 274,366,494,006 gallons divided by 50,370 gallons equals enough water to supply 5,447,021.92 households for one year.

7.56 ft Rumsey at 376,357,839,165 gallons divided by 50,370 gallons equals 7,471,864.98 households for one year.

Bottom line, there is a lot of water in Clear Lake, but not all the water can be readily used for drinking. An example of just one such limitation was described in a Lake County News article dated 9/17/21. The

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A Message from the President



Hope all is well with you and your family. We are once again in trying times as the Covid variants take to the forefront of our concerns. This has caused us to cancel some CLSPIA meetings and activities. Despite this, the park is open to the public. Campers and walkers have taken advantage of our beloved treasure. Over the past months CLSPIA has requested benches along the trails to make hiking and observing the park wildlife more enjoyable. Comment from a daily hiker, "We have plenty of picnic tables in the campgrounds, but no benches along the trails." This has been a challenge, but we will keep moving forward with our request. We documented 5 areas for benches back in May, and we are now waiting for the paperwork to get the OK from state park management.

Kirk Olsen, our Interpretive ranger, has the visitor center open on Saturdays and has begun presentations and Junior Ranger programs on the weekends. Please check the website link for happenings at the park <https://www.clearlakestatepark.org/august-at-the-park.html>.

Old technology (Chalkboard), for those of us that like to report animal sightings, has been installed at the pavilion. Please have a look and add your sightings and comments on the board. We take a photo once a week and post it on the CLSPIA Facebook site. <https://www.facebook.com/CaliforniaStatePark>

Enjoy the park, be safe! Email me b_schoenherr@yahoo.com any concerns or projects you would like us to attempt. Until next time, happy camping, hiking, and observing

Bob Schoenherr

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health department issued a warning that people on private water systems for their tap water in the Oaks Arm and Lower Arm of Clear Lake should not drink the water because of high levels of cyanotoxin. The health department is concerned that private treatment systems may not be effective in filtering out the cyanotoxin. For reference, I'm writing this article on September 18, and today's lake level according to USGS website is -1.92 ft. Rumsey as of 15:15 PDT. At this significant low many lakeshore residents are unable to launch their boats from their docks and their household water intakes may be in jeopardy of sucking air very soon.

Here are some interesting lake levels from past years (1873 to 2015) taken from the County of Lake Water Resources Department website. Also, keep in mind that the water resources department calculates that the lake has an average summer evaporation rate of 3 feet.

Record high: 13.66 ft January 1890

Significant highs

12.37 ft. March 1876

12.39 ft. March 1878

13.38 ft. February 1909

Cache Creek Dam built 1914

11.32 ft. March 1983

11.34 ft. February 1986

11.44 ft. February 1998

Record low: -3.50 ft. September 1920

Significant lows

-0.60 ft November 1976

-3.39 ft. November 1977

0.32 ft December 1990

0.53 ft. December 2009

0.53 ft. January 2014

-0.83 ft. November 2014

-1.92 ft and heading lower as of September 18, 2021 (USGS)

Another interesting statistic is the historical rainfall totals for Lakeport. The data was taken from the same County of Lake website, but keep in mind that the website did not list Lakeport rainfall totals from 1873 to 1900 and from 2001 to 2021. Nonetheless I think the following information is pretty good.

High 62.04 inches 1983

Low 12.19 inches 1976

I would note that Lakeport, and I would assume Lake County, is currently experiencing a significantly low rain year. The rain year ends September 30, 2021, and as of today's date, September 18, 2021, the Santa Rosa Press Democrat lists Lakeport's rainfall total at 10.45 inches and the Lyons Valley (NOAA, Lakeport) reporting station has the yearly total to date as 14.29 inches. I can't explain the discrepancy between these two rainfall amounts, but I'm hopeful that by the time you read this newsletter the official rain year will have ended and the news will let us all know the correct total.

Now that we know a little about the Rumsey Gage, lake level highs and lows as well as the rainfall high and low, it's time to bring it together and write about a few of the impacts on Clear Lake State Park. If you have been observing the park over this past spring and summer, you are witnessing what may be a historic drop in lake level first hand and its effect on park plant and wildlife. Kelsey Creek has stopped flowing into Clear Lake for sometime. Cole Creek, which has also stopped flowing for a number of months, has gotten so low that the park's launch ramp has been closed and is now at a point

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that you can't even paddle your kayak out to the lake. Old Kelsey Creek Slough is almost entirely drained, with just a couple of small ponds remaining where the fish, crawdads, frogs and turtles have taken what may be an ill-fated refuge. By remaining in these pools they are easy prey for the herons, egrets, kingfishers, hawks, mink, otters, raccoons, foxes and coyotes. You may have also noticed that the number of visible turtles in the slough, both the Western Pond and the Red-Eared Slider, has greatly diminished since early summer. Additionally, many of the trees seem stressed and some appear to have died.

There is yet another change that is taking place at the mouth of Kelsey Creek (see photos). For you birders and others park explorers, you may remember that prior to 2014, when the lake was below 2 ft. Rumsey, you could bushwhack through the willow woodland at the north end of the visitor parking lot, then trail blaze through the tules and emerge on a barren gravel spit that had only two distinct small groups of relatively short willows at the tip of the spit, on the east side of the mouth of Kelsey Creek. In 2014 we had a drought year and the lake got down to -0.83 Rumsey, and it allowed some young willows to gain a sufficient foothold on the spit to withstand any subsequent winter scouring that Kelsey Creek could dish out. Now, 7 years later, those "new" willows are over 20 ft. high and the older willows are well over 30 ft. high and the barren gravel spit is no longer barren (see photos).

Today the mouth of Kelsey Creek is separated from the lake by over 150 feet of dirt and gravel. That dirt and gravel bar already has a good crop of what I will call weeds and a small forest of 2 to 3 ft high young cottonwoods. If we have another mild or dry winter, those cottonwoods will be entrenched and well rooted and on their way to altering the mouth of Kelsey Creek. So I guess we wait and watch and see what Mother Nature has in store for us.

I hope this short article gave you some new information and may have heightened your awareness of the ever-changing park we all love. So keep your eyes peeled and your camera handy for any subtle or dramatic changes that may occur on your next visit to the park.

By Brad Barnwell

These are the old established willows on the spit on the east side of the mouth of Kelsey Creek. My wife, Kathy, took this photo of me standing in front of the willows to give you a sense of perspective. I think these willows are over 30 ft. high.



These are the "new willows" on the spit at the mouth of Kelsey Creek. I believe they are only 7 or 8 years old. I think they are about 20 ft. tall.

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I was standing in the creek bed of Kelsey Creek looking out toward Clear Lake when I took this photo on 8/10/21. For perspective that is my wife standing in the dry mouth of Kelsey Creek. The “small forest of 2 to 3 ft. high cottonwoods” are directly behind her. Clear Lake was at -1.08 Rumsey.



This is the “cottonwood forest” at the mouth of Kelsey Creek. I took this photo on 8/10/21

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I was standing on the footbridge over Cole Creek looking out the channel to Clear Lake when I took this photo on 9/18/21. The lake was at -1.92 Rumsey.



By way of comparison I took this photo (in the rain) of the Cole Creek marina from the footbridge on 2/21/17. The next day the lake reportedly crested at 10.63 ft. Rumsey. Just for reference Cole Creek campground, the group campground, major sections of Kelsey Creek campground and the main road to the beach were all flooded.

2021 Member List

A big THANK YOU to the 66 generous and dedicated paid members listed below! Please check the list for your name to be sure we have your 2021 membership renewal. As a volunteer group, our mission of education and interpretation is funded through membership dues, fundraisers, and sales from firewood, quagga mussel stickers, and our Visitor Center store. Although our programs have been curtailed during the pandemic shut-downs, all of these funding sources have either been reduced or eliminated again this year.

Please help us increase our membership by sharing this newsletter with your friends, and thank you for your continued support. We hope you are able to get out and enjoy the beauty, sights and sounds of autumn in the park!

Kathy Barnwell, Membership

INDIVIDUAL members

Margeret Eutenier
Barbara Harris
Darlene Hecomovich
Bella Kluyt
Elyse Mengle
Eleanor Neumuth
Susan Rode
Verna Schaffer
Susanne Scholz
Janice Stokes
Marilyn Waits

FAMILY members

Bill & Roberta Beat
Cathy Dion
Virginia Graziani
Ron & Anna Hess
Ellen Karnowski-Kuzu
Family
Jeff & Jayne Lyon
Tom & Pam Lyon
Sheila O'Hara & Bill
Fredriksson
Ellie Perinoni & David
House
Paul & Kathy Medlin
Linda Pyers
Patrick & Janet Peterson
Cameron & Sharon Reeves
Kathy Scavone
Stephen & Nancy Stetzer
Judy Stevenson

Chuck & Joan Sturges
Janet & Robert Swedberg
Yvonne Walters
George & Linda Waterstraat
Sharon Weeks & Barry Oselett

BUSINESS members

Joanne Jameson
Twin Pine Casino & Hotel

PATRON members

Bradley & Kathy Barnwell
John & Julie Berry
Henry Bornstein & Gae Henry
John & Betty Brookes
Lynne Bruner
Bernie & Lynne Butcher,
Tallman Hotel
Kim & Olga Clymire
Kelly F. Cox
Kim & Charlie Eadie
Susan Groechel

Bill & Barbara Haddon
Leanne & Jim Harvey
Larry & Kathy Jansen
Bill & Mary Kettenhofen
Susan & Roberto Lozano
Madelene Lyon
Harry & Roberta Lyons
Pam & Gary Maes
John & Vicki Maley
Pat McFarland
Sandy Moura
Tom & Val Nixon
Keith & Denise Petterson
Russ & Joyce Porterfield
Carolyn & Skip Rohner
Deb Sally & Ken Ling
Bob Schoenherr & Anita Benzing
Oleta Simpson
Bob & Nancy Smith
Jay T. Smith
Bobbi & Neil Towne
Lisa & Paul Vartabedian



Clear Lake State Park Interpretive Association's Spring Photo Contest Winners

Thank you to all the participants in our Spring Photo Contest! We had excellent submittals which captured our beautiful park in Spring.

The winners are as follows:

Adult Division: Laurie Scheibner

Female Wood Duck taken in a nest cavity on April 14, 2021 in Kelsey Creek Campground



Senior Division: Herman Strik

Bald Eagle taken May 11, 2021, 8:46 a.m. in a Gray Pine in Lower Bayview Campground



Most Facebook Likes: Herman Strik

Bullock's Oriole in flight taken April 9, 2021, at 10:46 a.m.



Please check out all the Spring photos on the CLSPIA website under the Activities tab (<https://www.clearlakestatepark.org>) and/or on the CLSPIA Facebook Page (www.facebook.com/California-StatePark).

CLSPIA Trail Camera Project Update

Eighteen months later and the trail cameras are still a great addition for observing the animal life at the park. The different water levels and drought conditions have made it more challenging where to keep a camera. Campers for the most part have been very respectful of the project, and so far this summer no one has moved or damaged the cameras.

Cameras are located on the Dorn Wilderness trail where we get great captures of deer, fox, and coyotes. The Lower Bay View area is where the bucks hang out with rabbits and coyotes. The Pavilion camera captures the mink, rats, raccoons, and deer along Cole Creek. The Kelsey Slough camera is the most active of the cameras and has captured all of the types of herons, raccoons, squirrels, a hawk and many more. The camera that was at the group camp ground has been moved multiple times this past three weeks due to the change of the water level along the lake shoreline. Wait till next month's wildlife camera reviews to see where it ends up.

For more up to date information and videos go to our Facebook site:

<https://www.facebook.com/CaliforniaStatePark>

You can see video from the trail cameras and other videos of the animals in the park by going to:

<https://www.youtube.com/playlist?list=PLlt7dpkiufHKItJnP6f9XCj913i-wbAad>

Trail camera Videos only:

https://www.youtube.com/playlist?list=PLlt7dpkiufHLMw6inunaxTdFuAq4_DVzV

By Bob Schoenherr

PARK HIRES LIFEGUARDS



For the first time in more than twenty years Clear Lake State Park hired seasonal lifeguards, Bailey Huggins and Jacob Jensen, for the 2021 summer season. (Photo by Brad Barnwell)

Board Actions

August & September 2021 no meetings were held

April, 2021

The Board approved Bob's proposed trail bench site map.

Terri Lopez (CAL) reported the following:

- No opening date has been set for the Visitor Center.
- Kirk is working on recruitment of volunteers.
- Kirk will conduct campfire programs when they resume.
- No part-time interpretive staff will be hired this summer.
- Kirk will begin "Story Walk" programs Mother's Day weekend.
- The re-naming of the Indian Nature Trail will be a lengthy process, with no estimated completion date.
- Trail bench installation is pending site and installation approval.
- The district is promoting the use of the group campground for the campfire ring, but no further action has been taken.
- Trail and interpretive signage are pending with no time-line or completion date.

May, 2021

The Board approved Ranger Glenn's \$160 request for reimbursement for the new employee orientation training day on April 28.

Terri Lopez (CAL) reported via e-mail the following:

- Trail benches are awaiting photos and GPS from Kirk.
- Covid restrictions remain the same.
- Kirk will set up a 'meet and greet' booth for the public, with the first one Friday, May 21st.
- A modified Junior Ranger program will begin mid-summer.
- Kirk will be conducting an orientation for prospective volunteers.

June, 2021

Terri Lopez (CAL) reported the following:

- Covid restrictions remain the same.
- Since the board decided not to run the Visitor Center store this year, Terri asked us to inventory and box all merchandise for storage.
- Trail benches are still awaiting photos and GPS from Kirk.

Winners of the Spring Facebook photo contest were posted on Facebook and our website.

The board approved up to \$150 to purchase a wildlife chalkboard to be posted on the pavilion.

After agreeing to have our Annual Membership Meeting in July, District notified us that due to the State's Covid restrictions, the CLSPIA Board would have to agree to be liable. The Board agreed to postpone the Annual Meeting until Covid restrictions are lifted.

July, 2021

The Board approved reimbursing Interpretive expenditures for Visitor Center manuals, Story Walk supplies and general supplies in the sum of \$134.20.

Kirk Thomas Olsen, Interpreter, reported the following:

- The Visitor Center will be open on Saturdays beginning July 17th, and Saturday and Sunday during August.
- Kirk will be advertising special programs, including nature walks and evening programs.
- Kirk will send all information for trail benches to Terri July 15th.

Staff Appreciation lunch will be held August 19th.

Due to a surge in Covid cases, after the July meeting it was agreed that we should cancel the Patron Dinner again this year.

August, 2021 – no meeting; September, 2021 – no meeting

In-Person Interpretive Programs are Back at the Park

Since mid-July the on-site interpretive programs have resumed at Clear Lake State Park. In addition, the park's visitor center opened and has already greeted 300 visitors. Some programming and access continue to be limited as the park follows the Covid-19 safety guidelines. The park visitors have been very positive and engaging with the exhibits by utilizing the redesigned Animal List. Many of our visitors are returning with their children and grandchildren as they have fond memories of visiting the park when they were young.

The opening of the Visitor Center is made possible by the wonderful park volunteers: Virginia Graziani, Neil and Bobbi Towne, and new volunteers Cristina and Roy Simpson. The park's camp host Andrea Skelton has helped, too.

Starting this past spring a new program has been hosted each month at the park along the Kelsey Creek Trail. This program, StoryWalk, is being presented to promote literacy and encourage young readers to read and enjoy being outdoors at the same time. StoryWalk was the idea of Anne Ferguson of Montpelier, VT and developed with the assistance of the Kellogg-Hubbard Library, and is a registered service mark owned by Ms. Ferguson.

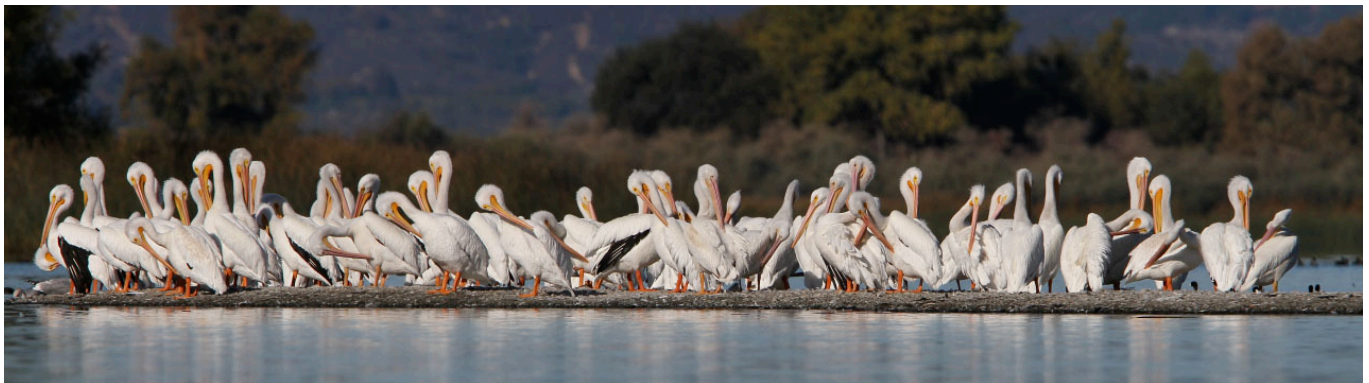


Wonderful crafts provided by our volunteers, Julie Berry and Oleta Simpson.

The on-site programming that was offered over the summer months included Saturday morning Junior Ranger Programs and evening programs at the outdoor Education Pavilion that offered campground visitors and community an opportunity to learn about the Raptors of the local area. The guided nature hike on the Dorn Nature Trail will continue to be hosted every third Thursday of the month.

The return of our park visitors and the increasing attendance each time these programs are offered cannot go unnoticed by the support and appreciation of our park volunteers and Clear Lake State Park Interpretive Association.

Submitted by: Kirk Thomas Olsen-State Park Interpreter



Note: If you are reading Clear Lake State Park Horizons for the first time and find the goals and activities interesting enough to pursue further, we would welcome your inquiry into becoming a volunteer docent. It really is lots of fun, as well as highly educational. If you are interested, please call the Ranger's office at 279-2267.



Clear Lake State Park
Interpretive Association
5300 Soda Bay Road
Kelseyville, CA 95451

2022 CLSPIA Membership Form

Clear Lake State park Interpretive Association (CLSPIA)

NAME _____ PHONE _____

ADDRESS _____ E-MAIL _____

***ANNUAL CLSPIA MEMBERSHIP FEES for 2022** *(Please check those that apply)*

☐ Individual (\$10) ☐ Family (\$18) ☐ Business (\$50) ☐ Patron (\$100) ☐ Contribution ☐ Gift Membership (for another)

PAYMENT *(Please check one):* ☐ **Check** ☐ **VISA Card** ☐ **Master Card** or online at www.clearlakestatepark.org

CARD # _____ EXPIRATION DATE _____

SIGNATURE *(if using credit card)* _____

INTERESTED IN VOLUNTEERING at the PARK? *(Please check any and all)*

☐ Park Newsletter ☐ Board of Directors ☐ Wildflower Brunch ☐ Special Events

Clip and Mail to -- CLSPIA -- 5300 Soda Bay Road, Kelseyville, CA 95451

** MEMBERSHIP CARD ENTITLES MEMBER TO 10% DISCOUNT ON VISITOR ITEMS.*