

MONO LAKE

N E W S L E T T E R

Summer 2021



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[Mono Lake Map](#)

W

hen you look at Mono Lake, what do you see?

Some people see a pristine landscape and others see a place marked by human engineering. Some see it as otherworldly and some see the most beautiful place on Earth. Some see a beloved vacation spot, others see home.

I recently heard about someone who saw Mono Lake as a failure. They walked along the County Park boardwalk, saw the management level sign with the water so far away and thought, “how sad, they couldn’t save Mono Lake.”

Even though this broke my heart, they could be forgiven for seeing the lake this way. Today, 27 years after the State Water Board decision to save Mono Lake, the shoreline is nowhere near the healthy management level. We are forced to see what is happening during this dry year: a lake perilously low and dropping, a lake again pushed to the brink by drought.

Many of us see Mono Lake as an environmental success story. We’re starting a new chapter in this story, one in which we must follow the path set out in case the lake didn’t rise as expected. That path will take us back to the State Water Board for a hearing to determine whether we need to try a different way to raise Mono Lake to the management level.

Those who remember the days of fighting for the lake in hearing rooms may see that happen again. Some people may be tempted to see Mono Lake and Los Angeles as rivals for water, but as LA’s own future water supply planning shows, there is enough for both places.

As you read this issue of the *Mono Lake Newsletter* you’ll see our analysis and plans for this next chapter. And when you visit, I hope you can envision the lake almost 11 feet higher at its healthy management level even while seeing it so low today. For as several articles in this issue put it, the requirement to raise Mono Lake 6392 feet will not change, but the way we reach it might.

—Elin Ljung, Communications Coordinator



As the level of Mono Lake dropped this spring, Mono Lake Volunteer Dave Marquart helped out by rerouting the South Tufa trail to follow the receding shoreline.

Mono Lake Committee Mission

The Mono Lake Committee is a non-profit citizens’ group dedicated to protecting and restoring the Mono Basin ecosystem, educating the public about Mono Lake and the impacts on the environment of excessive water use, and promoting cooperative solutions that protect Mono Lake and meet real water needs without transferring environmental problems to other areas.



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Mono Lake not rising on schedule

Low lake vulnerable to drought & climate change; rule changes needed to accomplish lake protection

by Geoffrey McQuilkin

On a warm fall day in 1994, I walked into the state capitol building alongside a crowd of Mono Lake advocates. We assembled in a distinguished hearing room beneath an epic mural depicting California history to watch the California State Water Resources Control Board vote on their momentous revision of the Mono Basin water rights of the City of Los Angeles.

When we entered, those rights allowed unrestricted water diversions from the tributary streams that feed Mono Lake, restrained only by court orders won by the Mono Lake Committee and allies.

When we walked out a few hours later, those water rights had been transformed. No longer would the Los Angeles Aqueduct carry water away—indeed, entire creeks and streams—without regard to the destructive impacts on Mono Lake, its millions of migratory and nesting birds, and miles of stream habitat and rare wooded wetlands. In the new world that was launched that day, the health of the lake and streams became as important as the benefits of supplying water to Los Angeles.

That day State Water Board member Marc del Piero proclaimed, “today we saved Mono Lake.” The Board had voted unanimously to halt the lake’s diversion-induced decline and to mandate that Mono Lake rise to the sustainable long-term management level that the people of California and Mono Lake enthusiasts throughout the world have been waiting for ever since.

But today, in 2021, that healthy lake level remains

frustratingly out of reach. The Board designed a 20-year transition plan that would swell the lake’s volume by 785,000 acre-feet of water and raise its level the 17 vertical feet needed to achieve ecological sustainability at a lake level that fluctuated around 6392 feet above sea level. Now, even after allowing an extra seven years for that transition, the lake is less than 40% of the way to 6392’. In fact Mono Lake is 11 vertical feet short of the goal, showing that the lake is far from recovering from decades of excessive water diversions.

The low lake is a problem of great concern, leaving danger looming over the unique ecosystem, the future of millions of migratory and nesting birds, and public enjoyment and health in this special place. In fact, the lake is expected to drop lower in this drought year, putting gull nesting islets in potential peril in 2022 (see page 8).

Fortunately, even in a time of hydroclimate extremes and accelerating climate change, the problem can be addressed with advocacy and action, in part because the State Water Board anticipated back in the 1990s that precipitation and runoff might arrive differently than their model projections of the time expected.

Standing at the edge of a cliff

A visit to Mono Lake today is a delight, where birds flock overhead and tufa towers rise from brine shrimp-filled waters. But like standing at the edge of a cliff on a windy day, things are fine until a gust of wind causes catastrophe. The risks of letting Mono Lake linger at low levels are large, as there is little buffer

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A sign at the County Park boardwalk marks 6392 feet above sea level, Mono Lake’s management level, but the lakeshore is still distant.



As Mono Lake drops, more lakebed is exposed to wind that sends harmful dust storms high into the air and far across the landscape.

against dry-year elevation drops causing both swift and long-term ecosystem damage and increased violation of air quality standards. The smart move is to pull back from the brink.

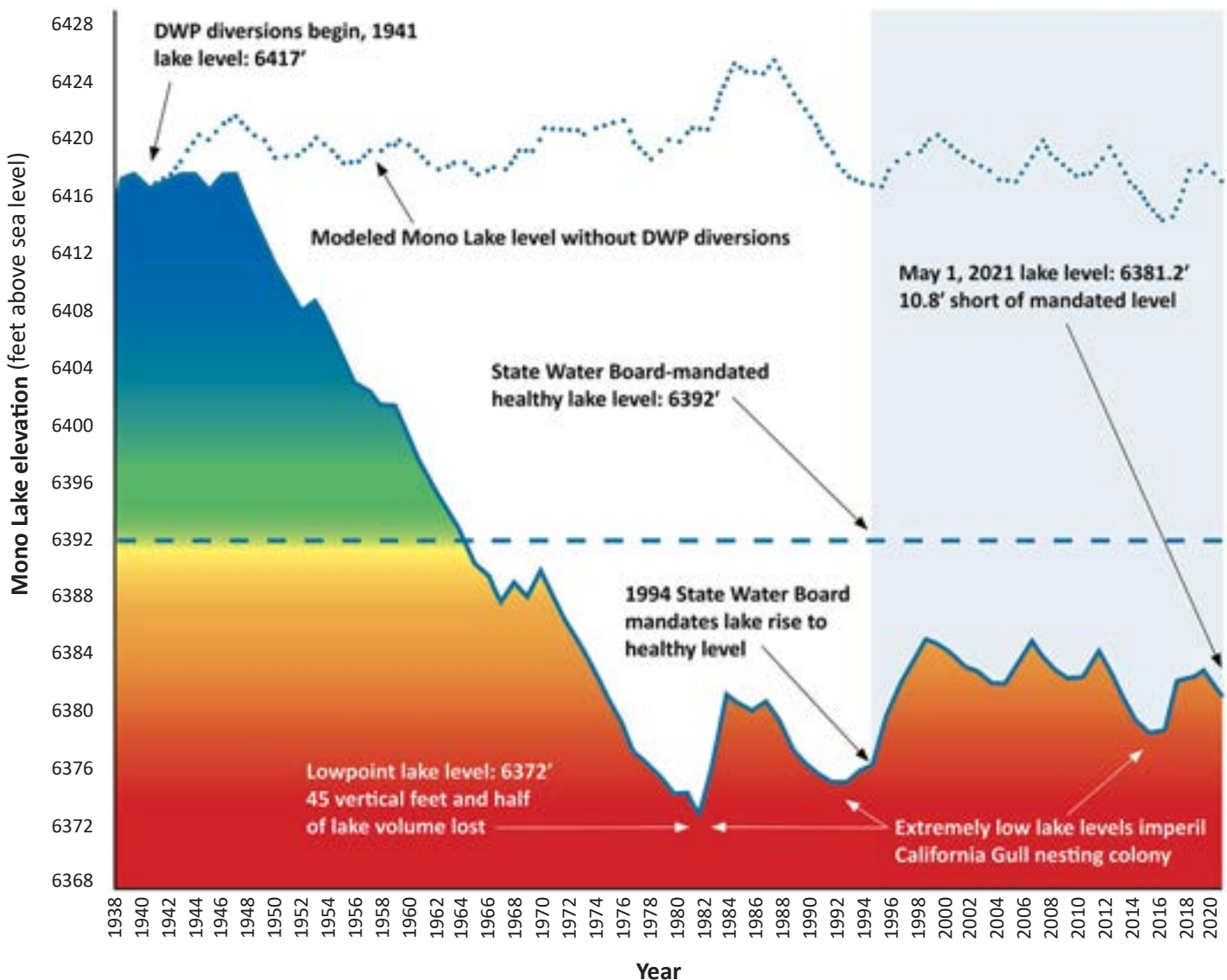
The mandated management level pulls Mono Lake back from catastrophe. When Mono Lake rises to that level, the lower salinity will ensure a productive lake ecosystem of brine shrimp and alkali flies, which in turn provide plentiful food to millions of migratory and nesting birds that depend on the lake. The lake will be high enough to ensure a protective watery moat around the island-based California Gull nesting colony, one of the three largest in the world. It will be high enough to submerge thousands of acres of currently exposed

lakebed, ending the emission of toxic dust that rides the wind and currently violates the Clean Air Act and makes Mono Lake the largest source of PM₁₀ air pollution in the United States.

The lake at 6392' will be high enough to be buffered from the ravages of multi-year droughts and the extreme dry-year swings forecast to increase with climate change. Even though the lake will still be 25 feet lower than it was when Los Angeles Department of Water & Power (DWP) diversions began, the lake's many values—mandated for protection by the state Supreme Court in groundbreaking litigation brought decades ago by the Mono Lake Committee and National

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Mono Lake surface elevation



In 1994 the State Water Board mandated that Mono Lake rise 17 vertical feet in order to achieve ecological sustainability. But today the lake is less than 40% of the way to 6392'. The current low level leaves Mono Lake, millions of migratory and nesting birds, and human health at risk, especially during the current drought. Because the lake is not rising on schedule, the State Water Board will consider modifying DWP's water exports to ensure that the lake returns to health.

Revisiting 1994 State Water Board projections of Mono Lake's rise

by Maureen McGlinchy

The California State Water Resources Control Board issued Decision 1631 in 1994 to restrict the Los Angeles Department of Water & Power's (DWP) diversions from Mono Lake's streams in order to restore the streams and waterfowl habitat and allow the lake's elevation to rise to a healthy management level of 6392 feet above sea level. The State Water Board projected that Mono Lake would attain the 6392-foot level in an average of 20 years, give or take a decade depending on drier or wetter conditions. This year, 27 years later, the lake level is at 6381', 11 feet short of the 6392' management level.

Why is the lake rising more slowly than the State Water Board expected?

The State Water Board's expectations were based on a hydrological model of Mono Lake's inflows and outflows that projected the lake's rises and falls through time. As is standard practice, the model utilized hydrology and climate data from the preceding historical period. The State Water Board was keenly aware that projections are inherently uncertain and was "aware of the limitations of computer modeling hydrologic systems and the probability that future hydrologic conditions may differ significantly from historical conditions."

How did the model assumptions hold up? With available data from the 26 years since Decision 1631 (1995–2021) we can compare the historical 50-year (1940–1989) hydroclimate that was used in the model projections. Placing these two periods in context of the long-term hydrology record for the Mono Basin, the historical period was slightly wetter than average while the recent period was slightly drier than average.

The following comparison focusing on the four largest components of Mono



Sierra Nevada runoff has decreased about 2% between the period of 1940–1989 and the period of 1995–2021, while precipitation falling on Mono Lake and adjacent land has decreased by about 20%.

Lake's hydrology illustrates how less water was available to the lake than projected and the consequent impact on lake level.

Component 1: Sierra Nevada runoff

Despite the 2012–2016 drought, Sierra Nevada runoff has only decreased slightly—about 2% on average—between the historical (1940–1989) and recent (1995–2021) periods. Although swings between very wet and dry sequences have become more common, the recent period is within the range of historical variability for runoff in the Mono Basin, dating back to the late 19th century.

Because Sierra runoff is the major inflow to Mono Lake—accounting for nearly three-quarters of incoming water—this small deficit adds up over time. A 2% decrease over 26 years is the equivalent of about 85,000 acre-feet of runoff. This volume of water equals roughly two feet of lake elevation and

begins to explain why observed lake levels are lower than what was projected.

Component 2: Basin precipitation

Analysis of the precipitation east of the Sierra Nevada indicates a more marked decline. Precipitation at Cain Ranch, southwest of Mono Lake, has decreased 20% between the historical and recent periods, suggesting that snow and rain falling directly on Mono Lake and adjacent land may have significantly decreased. Ongoing analysis of weather stations throughout the region suggests a broader decreasing trend but conclusions remain preliminary.

While basin precipitation contributes far less water to Mono Lake than Sierra runoff, it still accounts for nearly 25% of lake inflows. The precipitation decrease in the recent period could account for a significant reduction in lake inflow and explain upwards of six feet of "missing" lake elevation.

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Wild horse herd reaches South Tufa

by Arya Harp

Wild horses, previously seen rarely and only in remote parts of the Mono Basin, have experienced rapid population growth in the past five years—so much that they have expanded far beyond their home territory near the Nevada state line and now routinely reach South Tufa and the shoreline springs and wetlands at Mono Lake where they congregate to drink brackish water and graze on vegetation.

Horses are magnificent animals and inspire people across the West, but they have expanded out of their historical territory due to the growth of the herd. Their large numbers are proving to cause significant damage to sensitive protected habitat.

Increased impacts on places, habitats, and wildlife that people have been working for decades to protect and restore at Mono Lake have put a spotlight on the horse herd growth and range expansion into the Mono Basin.

Safety along roads in the area—for people and horses alike—is also a significant and increasing concern, as is the safety of visitors who encounter horses and approach them.

Increased horse population

According to the Bureau of Land Management (BLM), the horses in the Mono Basin belong in the Montgomery Pass Herd Management Area—a home range of 50,000 acres of mixed public lands located north of Montgomery Pass off Highway 6, primarily in Nevada, about 30 miles east of Mono Lake.

The BLM lists the sustainable size for the Montgomery Pass herd as 138–230 horses, though that figure is from 1988. Last November the Inyo National Forest conducted a single-day aerial survey and counted 642 horses in the herd, 498 of which were found outside of the herd's regular territory, and approximately 200 of which were in the Mono Lake area. On-the-ground observations have recorded well over

300 horses along Mono Lake's shore.

Management action needed

With the herd population increase and range expansion, the severity of the habitat damage, and the possibility of movement of horses in the direction of Highway 395, management agencies are working to protect both the resources at Mono Lake and the health and safety of horses and people.

The Inyo National Forest is the lead agency for horse management on National Forest System lands in the Mono Basin and is monitoring the situation with urgency due to the rapid migration of the herd westward and the resulting impacts to natural resources

and risks to the horses. Essential to any next management steps is for the agencies to get accurate numbers on the herd size and distribution.

Mono Lake Tufa State Natural Reserve staff have been documenting impacts to the springs, wetlands, and tufa for several years and is working to protect the sensitive habitat and resources in their charge. Because of the extensive wetland habitat degradation, State Reserve biologists are researching and planning a pilot program to test an exclosure fence that would protect some critical spring and wetland habitat while leaving other areas unfenced. The State

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PHOTOS COURTESY OF MONO LAKE Tufa STATE NATURAL RESERVE

The warm spring between South Tufa and Navy Beach was trampled and degraded this past winter when part of the horse herd reached South Tufa. The top photo was taken in December 2020 and the bottom photo in February 2021.

Mono County Supervisors reject problematic Tioga Inn project

Project's significant and unsafe impacts outweighed benefits

by Bartshé Miller

On April 20, 2021, the Mono County Board of Supervisors held their fifth and final hearing on the Tioga Inn Specific Plan Amendment #3. The controversial project was rejected when a Board motion to approve the project failed on a 2–2 vote.

Over the past year the Board spent 36 hours spanning seven days on the Tioga Inn project, deliberating and listening to staff presentations and public comment. The public consistently and overwhelmingly opposed the project. Those who love Mono Lake, Lee Vining, and the small-town rural character of Mono County's premiere gateway community submitted hundreds of written comments and spoke up throughout the hearings.

The project's major impacts on the Lee Vining community, cultural resources, public safety, and Mono Lake had not been fixed, and the Board heard the sincere concerns of residents, the Mono Lake Kutzadika'a Tribe, the Lee Vining Volunteer Fire Department, the Eastern Sierra Unified School District, the Mono Lake Committee, and Mono Lake friends from near and far.

Tioga Inn project failed to correct unacceptable impacts

Over the course of the project's evolution, it vacillated between claiming to provide affordable, community, and workforce housing. In its final iteration, the project offered only private, market-rate housing, prioritized for employees of a future hotel and restaurant, which was approved in an earlier Specific Plan from 1993 but never constructed.

For the Tioga Inn project, like so many other issues that affect Mono Lake and its public trust resources, the immediate answer regarding proposed projects is not “no,” but “how.” The Committee and the community provided an extensive record of thoughtful comments starting with the scoping phase in 2016, through the draft subsequent environmental impact report in 2019, and throughout a year of online hearings.

During the entire process, the Committee and others offered constructive solutions to improve the project and to avoid or mitigate the project's significant adverse impacts. While the project did incrementally improve

in the area of visual impacts, significant impacts remained that undermined public safety, wildlife, the scenic quality of the Mono Basin, and the cultural heritage of the Mono Lake Kutzadika'a Tribe.

Tribe's concerns not addressed

The Kutzadika'a Tribe urged additional project analysis and mitigation and had asked the Board not to approve the project until that work had been accomplished. In October 2020, the Board directed that additional consultation and discussions related to resolving the Tribe's concerns take place. No substantive conversations occurred, and the County neither initiated nor hosted meetings to seek solutions. In early March the Tribe and the Committee submitted a joint letter requesting additional environmental review to address impacts to the Tribe's cultural resources and to consider feasibility of a safe pedestrian route to connect the project with Lee Vining. Mono County did not respond to the letter until the hearing.

Following the nationwide COVID-19 surge, the Tribe and the developer were not able to schedule a meeting until early May. Mono County decided it could wait no longer and that it had satisfied legal requirements and moved ahead with the hearing on April 20. Two of the Supervisors, Bob Gardner and Rhonda Duggan, wanted to allow more time, but a motion to continue the hearing until the Tribe could meet with the developer was defeated by a 2–2 vote. The Kutzadika'a

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The Tioga Inn project, proposed for the Mobil Mart site south of Lee Vining, was denied because it didn't offer enough benefits to outweigh its significant adverse impacts.

Another drought year for Mono Lake

Hydrologic forecast shows lake level dropping into risky territory

by Elin Ljung

As California enters another year of drought, the Mono Lake level forecast for the 2021–2022 runoff year is in, and the outlook is not good. The lake is projected to drop more than a foot, falling to a surface elevation below 6380 feet above sea level by the end of 2021.

Half of the lake level gains made since the last drought have already been lost, and we are once again in consecutive dry years with very little buffer against the severe consequences of low lake levels on Mono Lake, the birds and wildlife that depend on it, and people, too.

At an elevation of 6380', the lake will be just five feet above where it was when the State Water Board issued its decision to save Mono Lake in 1994, and 12 feet below the management lake level of 6392'.

Around 6379' the landbridge between the mainland and the islands where California Gulls nest is exposed enough, and the water crossing shallow and short enough, that curious coyotes are more likely to discover the nesting colony and

prey on eggs and chicks. This year the gull colony is likely safe from coyotes, but even an average winter could put the gulls in grave danger next spring.

In 2017, the Mono Lake Committee undertook the formidable process of setting up a temporary electric fence across the landbridge that deterred coyotes and allowed the gulls to nest safely. The Committee could, and will, do that again, but an electric fence is not always going to solve the problem. If a multi-year drought causes the lake to fall even further, the landbridge will grow in size, creating multiple pathways for coyotes to reach the gulls, requiring additional fence segments and a logistical effort that could ultimately become infeasible. The far better solution is to raise Mono Lake to the required management level to permanently submerge the landbridge.

Mono Lake is the largest source of PM₁₀ particulate air pollution in the United States due to dust blown off of broad swaths of exposed lakebed. Air pollution violations generally increase as the lake level decreases, and the State

Water Board chose 6392' in part because covering the dust-emitting parts of the lakebed with water is the most effective solution to meeting the requirements of the Clean Air Act. Similar to solving the gull predation problem, ultimately, raising the lake level is the best solution.

If the lake turns out to be below 6380' on April 1, 2022, it would mean a reduction in water exports to Los Angeles from 16,000 acre-feet to 4,500 acre-feet. The rules that reduce and even stop water exports were made to protect the lake from dropping deep into risky territory. While these reductions in exports are important safeguards against a perilously low Mono Lake, this would be the third time they have been triggered. This is yet another concerning sign that the lake, at the current artificially low level, is more vulnerable to drought than the State Water Board expected (see page 3) and why it is time to re-examine the rules governing the Los Angeles Department of Water & Power's water exports. ❖



BARTSHE MILLER

Even small drops in lake level expose many acres of lakebed on Mono Lake's low-gradient eastern shore.

DWP's draft Urban Water Management Plan misses opportunities

by Bartshé Miller

The City of Los Angeles has made remarkable progress in reducing water use, using less water today than it did in 1970 despite population growth of 1.2 million. The people of Los Angeles, its leadership, and the Los Angeles Department of Water & Power (DWP) deserve credit for this remarkable, multi-decade transformation.

However, DWP's release of its draft Urban Water Management Plan (UWMP) signals the potential to impede this progress and stall efforts to build a more climate-resilient water future for the city and its water resources.

The Mono Lake Committee together with a coalition of Eastern Sierra stakeholders and Los Angeles community groups submitted a joint letter recommending that DWP make changes to its UWMP to better align with Mayor Garcetti's Green New Deal Sustainable City pLAn, an ambitious blueprint for building the city's climate-resilient water future (see Winter & Spring 2021 *Mono Lake Newsletter*).

The draft plan can do better for LA's water future

The coalition identified where the draft UWMP falls short of the pLAn vision and made specific recommendations for modifying it to better align with the pLAn goals. Notably the UWMP does not consider future local water supplies created by Operation Next, LA's flagship effort to recycle 100% of treated water from the city's Hyperion

Water Reclamation Plant. The UWMP also falls short of acknowledging the recent historical decline of per capita water demand in the city and assumes that water use will flatline instead of continuing to decrease. Statewide, this is a frequent flaw in UWMPs that groups like the Committee are calling out.

The coalition urged that DWP provide a more realistic future water demand scenario, more accurately quantify local water supplies in planning, address equity and affordability for low-income communities, and develop and commit to a regional water management plan for the Los Angeles Aqueduct that includes Tribes, conservation organizations, and communities in the Eastern Sierra.

Interest at both ends of the LA Aqueduct

In addition to the Mono Lake Committee, the letter was signed by a diverse group of 22 stakeholders at both ends of the Los Angeles Aqueduct, including East Yard Communities for Environmental Justice, Our Water LA, Amigos de los Rios, the Mono Lake Kutzadika'a Tribe, Friends of the Inyo, the California Cattlemen's Association, and many others.

With another perilous drought year descending on California, and increasing extremes in precipitation variability due to climate change, there is no more time for complacency. The UWMP needs to set a rigorous standard for DWP to follow to achieve a climate-resilient water future for Los Angeles and the Eastern Sierra. ❖



PHOTO COURTESY OF DDC SEARIS

Hyperion Water Reclamation Plant, located in Playa Del Rey, figures prominently in Operation Next, Los Angeles' water recycling plan, but DWP's draft Urban Water Management Plan does not consider this water as part of the City's future supply, a major missed opportunity.

Policy notes

by Robert Di Paolo, Arya Harp, Claire Landowski, Geoffrey McQuilkin, & Bartshé Miller

Weathered section of South Tufa boardwalk replaced

A portion of the boardwalk at South Tufa received a long-awaited facelift—the cracked and weather-beaten section was replaced with a new, sustainably-sourced redwood walkway.

The old wooden boardwalk, first assembled in the early 1990s, was originally part of the David Gaines Memorial Boardwalk near Old Marina. It was moved to South Tufa in 1999, when the upper section of trail was paved; the lower boardwalk was expected to be a temporary fixture until Mono Lake rose to submerge the lower portion of the trail. But the lake hasn't yet risen to the management level (see page 3), and a portion of the boardwalk had deteriorated beyond repair and had become a tripping hazard.

A community collaboration, the replacement project was initiated by retired State Park Ranger Dave Marquart and completed with support from the DeChambeau Creek Foundation (DCF). The wood was purchased by DCF and the hardware by State Parks. The installation was completed in late April using tools, know-how, and labor from about 20 people representing Mono

County, Friends of the Inyo, State Parks, the Inyo National Forest, the Mono Lake Volunteer Program, and the Mono Lake Committee. The old boardwalk planks were made available to the public to salvage and reuse.

Cattle replace sheep in the north Mono Basin

For the first time in many decades, cattle will graze Conway Ranch this summer. Mono County owns and manages the historic ranch, which is located in the northwest corner of the Mono Basin, just south of Conway Summit.

In February the Mono County Board of Supervisors approved a five-year lease to allow commercial cattle grazing, awarding the lease to the Hunewill Land & Livestock Company from Bridgeport. Under the lease, the Hunewill Company will manage the cattle, fencing, and irrigation.

In 2017 the Supervisors voted to end sheep grazing on the ranch due to the threat of disease transmission to federally endangered Sierra Nevada bighorn sheep. At the time, the possibility of cattle grazing was discussed as a substitute for sheep grazing and a way to address thatch

build-up, fire danger, and the continued management of the property within the bounds of Conway Ranch's conservation easement with the Eastern Sierra Land Trust.

Even though the property is a historic ranch, cattle have not grazed there in decades, and public concern about cattle impacts to riparian and spring habitat and water quality was expressed during the February Board of Supervisors meeting before approval of the lease. The lease requires fencing along riparian areas within Conway Ranch to keep cows out, and the County discussed plans to implement water quality testing in cooperation with the Lahontan Regional Water Quality Control Board.

New fishing regulations add complexity for Mono Basin

The California Department of Fish & Wildlife (DFW) implemented new freshwater fishing regulations statewide on March 1, 2021. The changes were intended to be simple, but for the Mono Basin, the new regulations create a tangled line of new rules and layered seasons.

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News flash: Stream restoration can finally advance

On April 27, 2021, the Los Angeles Department of Water & Power (DWP) Board of Commissioners voted to adopt a Mitigated Negative Declaration (MND) environmental document for the Grant Dam modernization project. The approval is an essential step to moving forward with the landmark 2013 Stream Restoration Agreement (negotiated by the Committee and partners with DWP) and the State Water Board's highly anticipated stream restoration

amendments to DWP's water licenses.

During the Commission meeting the DWP staff presentation caused confusion when staff muddled stream restoration with the important, but separate, issue of the restoration of Mono Lake. The State Water Board in 1994 mandated raising Mono Lake to a sustainable management level, and the lake remains well below that requirement (see page 3). However, lake level issues are a separate matter from the stream restoration actions that were under

consideration at the meeting.

We commend the Commissioners for keeping the necessary studies moving forward and voting to approve the MND. The next step in the process will be at the State Water Board, which is expected to move quickly to mandate the new stream restoration requirements now that the MND is complete. The Committee has been actively engaged in the process, now seven years long, and looks forward to crossing the finish line.

Previously, fishing season for most lakes and streams in Mono County was the last Saturday in April through November 15, with a five-trout daily bag limit and fishing closed for the rest of the year. This is still true for the major lakes along the June Lake Loop: Grant, Silver, Gull, and June. The same goes for Lundy Lake and Virginia Lakes.

All other lakes in the Mono Basin, including those along the Tioga Road (Ellery, Tioga, and Saddlebag) are now open to year-round fishing with a five-trout daily bag limit. Rush Creek downstream of Grant Lake as well as Parker and Walker creeks are also open to year-round fishing, but only with artificial barbless hooks and all trout must be returned unharmed.

Rush Creek between Silver Lake and Grant Lake can only be fished from the Saturday before Memorial Day through the end of September with a five-trout daily bag limit. There is a two-trout daily bag limit for Lee Vining Creek downstream of DWP's diversion from the Saturday before Memorial Day through the end of September, after which only artificial lures with barbless hooks may be used and all trout must be returned unharmed.

All other Mono Basin creeks and creek sections not mentioned here (including Lee Vining Creek upstream of the DWP diversion pond) have a five-trout daily bag limit from the last Saturday in April through November 15, after which only artificial lures with barbless hooks may be used and all trout must be returned unharmed.

During the public comment period for these new regulations, the Committee urged DFW to keep existing zero bag limits below DWP diversion dams and continue the winter fishing closure on Rush, Lee Vining, Parker, and Walker creeks for the benefit of the recovering fisheries (see Summer 2019 *Mono Lake Newsletter*). How these regulation changes impact stream restoration will unfortunately be another variable for stream scientists to unravel.

Remember, you can never possess



A section of the South Tufa boardwalk received a long-awaited facelift in April.

more than double a daily bag limit, even if collected over many days. For more information, visit wildlife.ca.gov/regulations.

DWP appeals court order to maintain Long Valley ranch water until study completed

In May the Superior Court of the State of California issued an order requiring DWP to comply with the California Environmental Quality Act before it would be permitted to make any changes to its historical provision of water in Long Valley. Upon release of the final decision, DWP immediately filed an appeal.

The court order directs DWP to continue to provide water at times and in amounts as it has in the past, until it completes a comprehensive environmental review. Since the ruling, DWP has said it will provide water this year in a quantity that reflects the dry-year conditions, and Long Valley is now being watered accordingly.

The lawsuit was filed by Mono County and the Sierra Club in 2018 in response to DWP's abrupt announcement that it would no longer continue its long-term management practice of providing water to lessees who have, for generations, spread the water over 6,000 acres of cattle ranchland. In addition, the water benefits Bi-State Sage Grouse, which are being studied and actively conserved in the area.

Long Valley is home to historical family ranches, wildlife habitat, and scenic, recreational, and economic resources in southern Mono County.

The Keep Long Valley Green coalition of ranchers, environmentalists, recreationists, local residents, and Tribal governments is asking DWP to provide a binding, annual water supply commitment, adjusted for year type, in order to maintain this historical and beloved landscape in the Eastern Sierra. For more information visit keeplongvalleygreen.org. ❖

Mono Lake to fall below 6380 feet this year

by Greg Reis

Mono Lake is currently at 6381.2 feet above sea level, 1.5 feet lower than at this time last year. This year Mono Lake will drop below 6380 feet for only the second time since 1996. The first time was during the third year of a drought, and it stayed below 6380 feet from 2014 to 2017, when it reached a low of 6377.1 feet.

It is only the second year of the current drought, and Mono Lake is expected to drop below 6380 feet in October. If next winter is dry, it will remain below 6380 feet on April 1, triggering a reduction in the Los Angeles Department of Water & Power's (DWP) water exports in order to protect Mono Lake resources and slow the lake's decline. Air quality and California Gull nesting are degraded at these levels and will be severely threatened if the drought continues (see page 8).

The State Water Board's 1994

Decision 1631 was farsighted in that it permits DWP to export more water from the Mono Basin at higher lake levels, giving DWP a motivation for raising Mono Lake to its future management level. This year, that motivation is stronger than ever—and DWP could choose to reduce its export to make sure Mono Lake will be over 6380 feet on

April 1, 2022, thus ensuring one more year of a 16,000 acre-foot export. If next winter is dry and DWP exports the full 16,000 acre-feet permitted this year, there is a very good chance that Mono Lake will be below 6380 feet next April 1, triggering a reduction in permitted exports to 4,500 acre-feet during the following year. ❖



Mono Lake Committee and DWP staff read Mono Lake's level gauge together every April 1.

BARRISH MILLER

Streamwatch

58% of average runoff means a dry year for Mono Basin streams

by Greg Reis

During the 2020 runoff year (April 1, 2020–March 31, 2021), watershed runoff was 69,000 acre-feet, or 49% of average. This was 27,000 acre-feet (32%) less than DWP's forecast, and 18,000 acre-feet less during the April–September snowmelt period, making 2020 the most over-forecasted runoff year since 1950.

DWP's forecast determines the year-type and minimum streamflows. In 2008, a 20,000 acre-foot over-forecast triggered

annual Rush Creek minimum flows 15,000 acre-feet too high and resulted in draining Grant Lake Reservoir to the point of causing detrimental temperature and turbidity impacts to Rush Creek. In 2020, reservoir impacts from the incorrect forecast were not as bad because under the new and improved Stream Ecosystem Flows (SEFs), the four drier-than-Normal year types all have similar minimum streamflows, and the Rush Creek annual release volume was only 2,000 acre-feet too high.

DWP's runoff forecast for the 2021 runoff year was 58% on April 1. Dry year SEFs amounting to 25,800 acre-feet will be released this year for the first time. SEFs provide a higher flow for Rush Creek riparian vegetation during

the growing season and variability in Lee Vining Creek's flow—both improvements to the previous Dry year flow requirements.

A dry April caused forecast declines of 5–10% in nearby watersheds, indicating this year's forecast might again be too high. DWP also missed the chance to make use of Airborne Snow Observatory flights to collect data, which would have increased accuracy. The forecast also suffered from missing snow surveys in the Rush Creek watershed. A more accurate 2021 forecast would not change the year type or minimum streamflows, but would allow better management of Grant Lake Reservoir, which could be very low next spring unless exports are reduced this year. ❖

6417'

6392'

6381.2'

6372'

Prediversion lake level, 1941

Management lake level

Current lake level

Historic low, 1982

Mono Basin Journal

A roundup of quiet happenings at Mono Lake

by Geoffrey McQuilkin



GEORGE MCQUILKIN

*T*he signs of spring in the Mono Basin are many, often accompanied by snow squalls as winter slowly slips away. The enthusiastic blossoming of desert peach across the basin is a prominent sign, and welcome perfume, marking the transition as nearly complete. The shrubs' bare branches transform in just a few days and suddenly burst forth with showy pink blossoms from top to bottom.

This basin is, of course, a land of contrasts and four thousand feet higher up Tioga Pass remains blanketed in snow. I recently walked out from the road's edge, and the snow cover was complete but thin, a sign of the well-below-average

winter precipitation at nearly 10,000 feet above sea level. In the occasional soft spot, I broke through the surface layer but ended up only knee deep at a time of year when one normally expects much more. Slopes I have skied in May during wetter years are already bare talus fields.

The snow up here will melt and flow to Mono Lake all summer, part of the annual hydrological cycle for this ancient salt lake nestled in its closed basin. In this drought year the lake really needs more than the rapidly thinning snowpack can offer, but the flowers and returning birds still bring a welcome change of season along with hope for wetter years ahead. ❖

Benchmarks



ANDREW YOUSSEF

July 2019: Perfect reflections at South Tufa on a calm summer morning. Mono Lake had risen to 6382.7 feet above sea level for the first time since 2012.



ELIN LUNG

May 2021: After a couple of drier-than-average winters, Mono Lake's level has dropped 1.5 vertical feet to 6381.2 feet above sea level, and the difference along the shoreline is dramatic.



MONO LAKE COMMITTEE

INFORMATION CENTER & BOOKSTORE



MONO LAKE COMMITTEE LOGO TRUCKER HAT

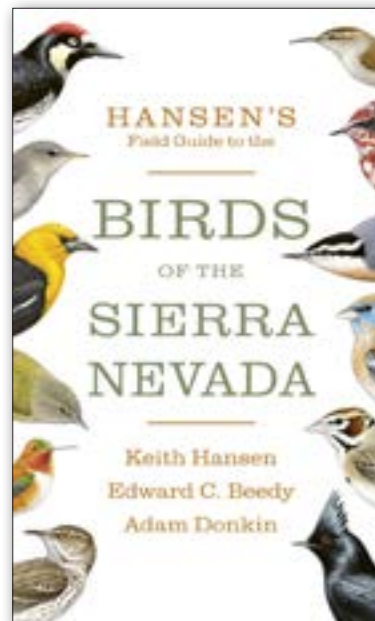
Protect yourself from the summer sun like Lead Naturalist Guide Nora and her fiancé Kevin with this eco-friendly organic cotton and recycled polyester hat embroidered with the Mono Lake Committee logo. This unisex style is a great fit for everyone and is available in deep teal and classic charcoal grey. *Mono Lake Committee exclusive.*
Mono Lake Committee logo trucker hat, one size fits most, please specify teal or charcoal: \$20.00

HANSEN'S FIELD GUIDE TO THE BIRDS OF THE SIERRA NEVADA

BY KEITH HANSEN, EDWARD C. BEEDY, AND ADAM DONKIN

Featuring stunning and charismatic illustrations of more than 250 Sierra Nevada bird species, along with descriptive text and natural history notes, this brand-new book is an essential addition to any birding or Sierra Nevada collection. Natural historian and illustrator Keith Hansen has been a presenter at the Mono Basin Bird Chautauqua for many years, and this book is the culmination of his 16-year project to illustrate all the Sierra Nevada birds.

Hansen's Field Guide to the Birds of the Sierra Nevada, paperback, Heyday, 320 pages, 5"x 8½": \$28.00



NEW!



MONO LAKE NALGENE BOTTLE

Stay hydrated with this durable and lightweight Nalgene bottle during all of your summer activities. This 32-ounce wide-mouth bottle is made in the USA and features a Mono Lake design of tufa towers and a flock of birds (see below). It has a leak-proof lid, is BPA/BPS free and dishwasher safe, and is available in two colors: seafoam (light clear blue) and surfer (translucent teal).

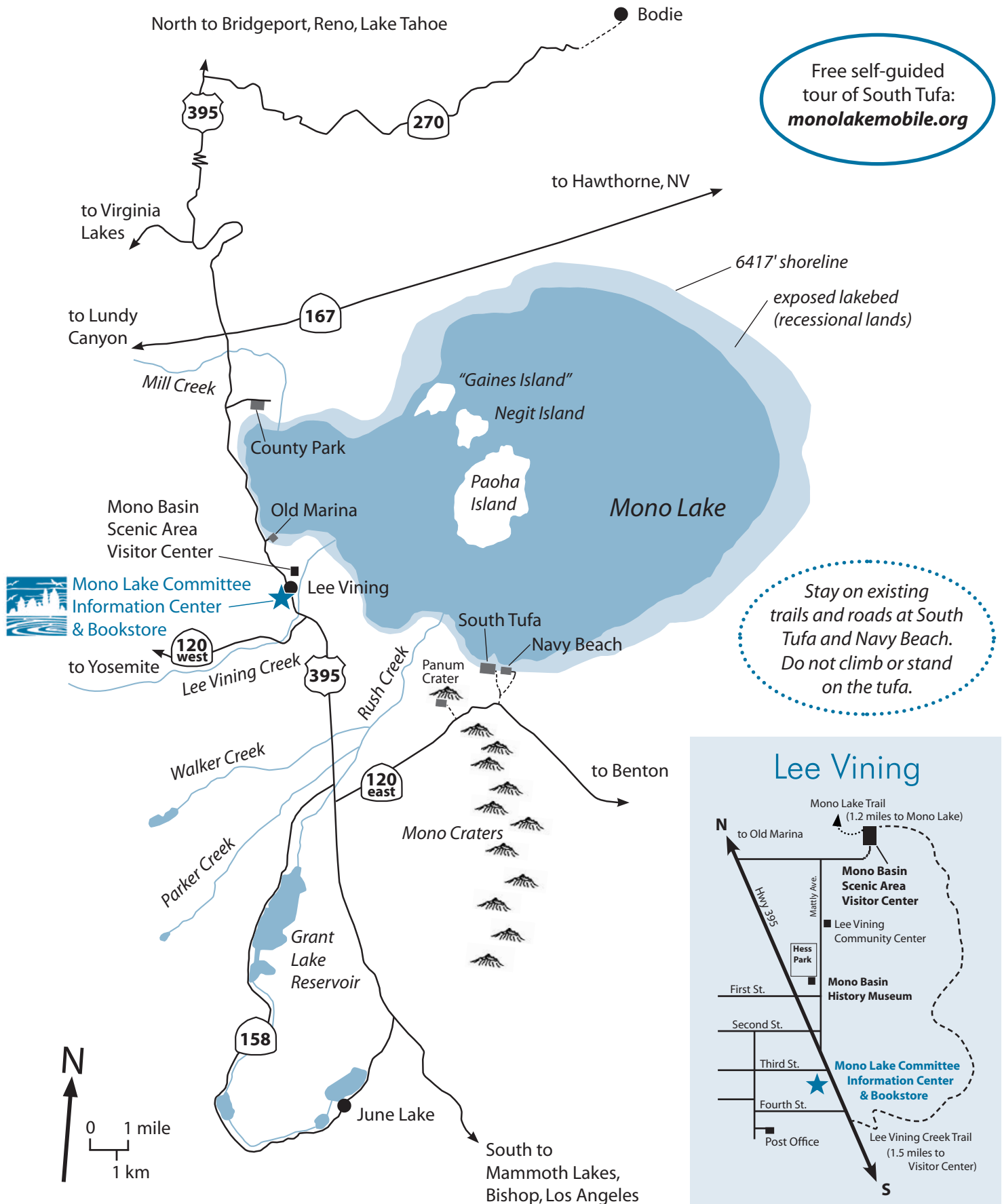
Mono Lake Committee exclusive.

Mono Lake Nalgene bottle, 32 ounces, please specify seafoam or surfer: \$15.00



order at monolake.org/store or (760) 647-6595

Mono Lake map



When you visit Mono Lake

COVID note

Always check monolake.org as bookstore and tour schedules may change on short notice.

Nestled at the edge of the arid Great Basin and the snowy Sierra Nevada, Mono Lake is an ancient saline lake that covers over 70 square miles and supports a unique and highly productive ecosystem. The lake has no fish; instead it is home to trillions of brine shrimp and alkali flies. Freshwater streams feed Mono

Lake, supporting miles of lush riparian forests of cottonwood and willow. Along the lakeshore, scenic limestone formations—tufa towers—rise from the water’s surface. Millions of migratory birds visit the lake each year.

The Mono Lake story begins

In 1941, the Los Angeles Department of Water & Power (DWP) began excessive water diversions from Mono Basin streams. Mono Lake dropped 45 vertical feet, lost half its volume, and doubled in salinity.

The Mono Lake Committee was founded in 1978 in response to the threat of ecological collapse of Mono Lake.



ELIN LUNG

Mono Lake Committee Information Center & Bookstore

- Open daily from 9:00AM–5:00PM during the summer
- COVID-19 safety precautions in place
- monolake.org and (760) 647-6595

See detailed displays about Mono Lake’s political history and the current work of the Mono Lake Committee, “The Mono Lake Story” film, an art gallery, a comprehensive selection of books on natural and local history, T-shirts, maps, and locally made artisan gifts. This is also the Lee Vining Chamber of Commerce.

The Committee set up headquarters in the old dance hall in Lee Vining and went to work spreading the word about Mono Lake. The Committee took the City of Los Angeles to court, arguing that DWP had violated the public trust doctrine, which is “the duty of the state to protect the people’s common heritage of streams, lakes, marshlands and tidelands...” (Supreme Court of California, 1983).

In 1994, after more than a decade of litigation, the California State Water Resources Control Board ordered DWP to reduce diversions and raise Mono Lake to a healthy level of 6392 feet above sea level—twenty feet above its historical low. This was truly an environmental victory. Now, twenty-seven years after the State Water Board’s historic decision, the lake is less than 40% of the way to the healthy management level. There is more work to be done.

Mono Lake’s recovery depends on water conservation in Los Angeles, and the Committee has created solutions to the demand for water by implementing conservation and recycling programs in LA that have saved more than enough water to share with Mono Lake. Today LA is one of the most water-conscious cities in the United States, and the Committee works statewide to promote wise water use for people and the environment.

The Mono Lake story is not over

The Committee works in the areas of public policy, ecological protection and restoration, public education, water conservation, and scientific research. We continue to strive for solutions that balance the needs of people and the environment.

Protection. The Committee defends existing Mono Lake protections to ensure that established rules, orders, agreements, and victories remain active and strong. We make sure that DWP complies with existing rules and agreements, acting as a watchdog when necessary. Challenges facing Mono Lake also include demands for water, poorly-planned development, increasing recreation pressures, underfunded management agencies, and climate change.

Restoration. The Committee works to restore the ecological functions of Mono Lake, its tributary streams and waterfowl habitat, and the watershed as a whole. Our restoration programs work to heal the damage caused by 50 years of DWP’s excessive water diversions. As a result of historic litigation, DWP is required to fulfill its restoration obligations in the Mono Basin as ordered by the State Water Resources Control Board. The Committee plays a critical role as a watchdog, monitor, and science support to transform the restoration requirements into measurable restoration progress.

Education. The Committee offers hands-on programs to share the sense of wonder that Mono Lake evokes. South

you are part of the Mono Lake story

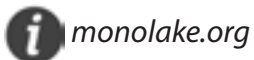
Tufa tours, activities for school groups, Field Seminars, custom guided trips, and the annual Mono Basin Bird Chautauqua all provide ways to learn more about Mono Lake. In addition, the Mono Basin Outdoor Education Center brings students from Los Angeles to learn about the source of their water, educating the next generation of California policymakers.

Science. Scientific research is the basis of our policy work, a guide for restoration, and an inspiration for understanding Mono Lake. The Committee supports and works with researchers, hosts a comprehensive research library, operates a research boat, and runs the Mono Basin Field Station to enhance the scientific knowledge of Mono Lake, its tributary streams, and the surrounding lands.

Get involved at Mono Lake

Mono Lake has a great success story, and you can be a part of it! Add your voice to the 16,000 members who are committed to the protection and restoration of Mono Lake. Your support as a Committee member will be put to hard work for Mono Lake.

Join us on a walking tour, Field Seminar, or custom guided trip. Check out Mono Lake online at monolake.org to stay connected to Mono Lake and help ensure its protection for generations to come. ❖



GABRIELLE REINTERIA

Free naturalist tours at South Tufa

- Daily at 6:00PM starting June 15, 2021
- Reservations recommended: monolake.org/freetours or (760) 647-6595
- Tours are free, but there is a \$3 per person entrance fee to the South Tufa area
- Meet at the kiosk at the South Tufa parking lot
- COVID-19 safety precautions in place

Find out why Mono Lake is salty, taste alkali fly pupae, make tufa, and see migratory and nesting birds on this fascinating hour-long walk. If you can't make a tour, you can take a self-guided tour at monolakemobile.org.

Keep camping safe and happy

Staying in an established campground is the best way to protect our public lands from fires, trash, and trampling. Find your perfect campsite at recreation.gov. However, if you are considering dispersed camping (camping outside of a developed campground), please follow these rules to keep our public lands, forests, wildlife, nearby communities, and yourself, safe.

Follow local fire restrictions. Obtain a mandatory CalFire campfire and camp stove permit: readyforwildfire.org/permits/campfire-permit/. Have a shovel and five-gallon bucket of water available before lighting your campfire in a safe, existing fire ring. Never leave a campfire unattended. Make sure your fire is completely out—ashes and remnants must be cold before you leave.

Plan ahead and know where you may and may not camp, the stay limits, closures, and private property boundaries. Ask at visitor centers to find out where you can camp.

Choose a campsite in an already-disturbed area, at least 200 feet from lakes and streams.

For toileting, find a spot at least 200 feet from any water source and your campsite, dig a hole at least six inches deep to bury waste, and always pack out toilet paper.

Pack it in, pack it out. Local dumpsters may be full. Be prepared to take all trash, including pet waste, with you to dispose of it where you live.

Be prepared for extreme weather conditions and medical emergencies.

The recent increase in dispersed camping in the Eastern Sierra is both a safety and land management issue, and local agencies, businesses, and organizations are working together to spread the word about careful camping in this special area.



Mono Basin research ramps back up

by Claire Landowski

As the world closed down in March 2020 in response to the worsening coronavirus pandemic, research groups working in the Mono Basin also packed up and went home. Though a few people were able to return later in the year for isolated work, the Mono Basin Field Station was relatively quiet throughout 2020.

Spring of 2021 brought winds of change, though, and this year the Field Station is almost completely booked for the summer. The Mono Lake Committee's research boat is also in high demand. The Committee is glad to support eight research projects this year, a mix of long-term studies and newer research efforts.

Piecing together the paleoclimate of the Mono Basin

The Mono Basin is known as an excellent place to study geology thanks to its visible glacial evidence, volcanic activity, and ancient and modern lake level terraces. Guleed Ali, a Research Fellow with the Earth Observatory Singapore, has been investigating the fluctuations of Mono Lake's level throughout the last ice age. His studies particularly focus on the extreme high and low levels of the lake.

Bi-State Sage Grouse monitoring

The Mono Basin is one of the primary ranges of the Bi-State Sage Grouse, a genetically distinct population of the Greater Sage Grouse. For over a decade, the US Geological Survey and Great Basin Bird Observatory have collaborated to send a group of researchers to observe and count the Bi-State Sage Grouse during their leks, or mating displays. In 2020 the early part of the breeding season observation work was cut short, though a few researchers were able to return in the fall for late-season

counts. This year, the team is six members strong, and is staying at the Field Station from March to mid-August.

White-crowned Sparrow behavior

Begun in 1968, this project investigates the physiology and behavior of White-crowned Sparrows that breed in Tuolumne Meadows. Jessica Malisch, from St. Mary's University in Maryland, and Carly Hawkins, from UC Davis, lead a group that arrives as the sparrows ascend to their alpine breeding grounds to build nests; the team plans to stay through at least fledging season in July.

Spotted Sandpipers in the Mono Basin

A new project, part of doctoral work by Jessica Schaefer from UC Davis, will study Spotted Sandpipers at Mono Lake and in surrounding areas. She will be comparing the behavior of high-elevation populations in the Mono Basin to low-elevation populations studied elsewhere.

Volcanic heat flux in Mono Lake

In late March, after deferring the trip because of coronavirus, researchers from the US Geological Survey and Southern Methodist University, with field support from Committee staff and boat, installed a sensor in the sediment of Mono Lake, near Paoha Island, to measure the heat flux at the sediment-water interface. The heat is produced by the magma system beneath the Mono Craters Volcanic Chain—previous studies using other methods have estimated it to be approximately six kilometers below the surface at Panum Crater, and this study will be the first to estimate the depth of magma beneath Mono Lake itself.

Continued on page 19



In March, with field support from Mono Lake Committee staff on the Committee research boat, USGS and Southern Methodist University researchers installed a sensor in Mono Lake's sediment near Paoha Island to measure the heat flux at the sediment-water interface.

Wild & Scenic Film Festival goes virtual and breaks records

by Andrew Youssef

Each March, a group of Mono Lake Committee staff typically travel to the southern end of the Los Angeles Aqueduct to host the Wild & Scenic Film Festival in LA and connect with members and supporters in the region. This year, in light of the pandemic, we decided to go completely virtual, and more than 1,000 people joined us from across 30 states for a series of inspiring short films about environmental justice, adventure, and community. The films we chose to screen this year were dynamic and diverse, and featured people across races, abilities, and sexualities who are often not heard, especially in outdoor spaces.

Committee staff made appearances between films to talk about our current work at Mono Lake and highlight the Mono Basin Outdoor Education Center (OEC). The virtual format also allowed us to have a special guest speaker, Ashley Hernandez from Communities for a Better Environment, who talked about her time at Mono Lake with the OEC and

was featured in the final film of the lineup, “District 15.” For those who watched the event live, there was a chat box with Committee staff where people shared their favorite memories of Mono Lake and their reactions to the films, which was a fun way to connect with familiar faces and new supporters.

In total, the event raised nearly \$12,000 for the OEC, which will allow us to provide transportation grants to groups visiting this year and will help fund some exciting new OEC landscape upgrades (see page 21). This year’s festival had the second-highest attendance of any virtual Wild & Scenic Film Festival, out of more than 130 virtual events, and we couldn’t have done it without you. Thank you to everyone who bought tickets, spread the word, donated raffle prizes, and made extra donations to the OEC to help us reach our goal and support this important program. If you have any questions about the film festival or ideas for next year, please contact (760) 647-6595 or andrew@monolake.org. ❖

Mono Basin research from page 18

Phalarope counts

Ryan Carle from Oikonos Ecosystem Knowledge will be continuing phalarope research for the third year. He’ll be using the Committee boat periodically throughout the summer to conduct counts of migrating phalaropes on Mono Lake. This work, conducted along with Dr. Margaret Rubega, is part of an international effort to understand the population health of phalaropes, which winter in South America and nest in the northern Great Plains, with an important stopover at Mono.

Osprey and Black-Crowned Night Heron banding

California State Parks will be sending a crew out on Mono Lake to band Osprey chicks for the study’s 14th year. This year, for the first time, they plan to band Black-crowned Night Heron chicks as well.

Intestinal microbiome of California Gulls

Amy Parsons and Scott Shaffer from San Jose State University will be working on a study to compare the microbiome of California Gulls’ digestive systems at Mono Lake to birds living in the San Francisco Bay and other California coastal locations. They will access the nesting islands with field support from Committee staff.

The number of research projects and the variety this year is exciting, especially in the wake of a year of cancellations and uncertainty. If you are a researcher looking for housing or other support for Mono Basin studies, please contact (760) 647-6595 or claire@monolake.org for information and availability. ❖



PHOTO COURTESY OF SARINAH SIMONS

State Parks biologist Ashli Lewis with a newly banded Osprey chick.

Mono Lake philanthropy in a pandemic

Varied and generous contributions shape a successful year despite many challenges

by Anna Christensen

While the COVID-19 pandemic disrupted travel and activities in 2020, Mono Lake Committee members provided steady financial support that allowed the Committee to keep all staff employed and continue our work of protection, restoration, education, and scientific research without a hitch.

Membership renewals fluttered into our post office box in Lee Vining every week and month of the year. For members supporting the Committee through monthly giving, Guardians of the Lake contributions arrived like clockwork. Staff members who would have been greeting guests in the bookstore switched to provide ample phone coverage, welcoming incoming calls to renew memberships, take mail orders, and keep people connected to the latest happenings in the Mono Basin through friendly conversations.

Friends became creative. We received bundles of stamps to defray the cost of thank you notes and written correspondence. Artists shared their work for us to use in digital slideshows, for merchandise in the bookstore, and to hang on the walls of our office and field station. These unexpected gifts arrived generously and with sincere intentions to assist the Committee's work.

Craig & Marya Phillips of Riverside increased their support with a specific goal in mind: to enhance Committee outreach programs for videos and virtual experiences. This gift came at a perfect time for Committee staff to upgrade technology for the Mono Lake Moments video series—which captured Mono Lake through the seasons—to fulfill the increased demand for virtual tours of the lake for students around the state, and now put to use for virtual Field Seminars. While the Phillipses have been supporters of the Committee for twelve years, they chose 2020 to support “little dream projects” and get them off the ground.

Gifts from donor advised funds remained strong in 2020 as members directed this support to be sent

to the Committee. In addition to traditional donor advised funds, members also sent donor directed funds through local community foundations. The Committee also accepts donations of stock and received several transfers last year. Matching gifts remain a popular giving option for members whose employers provide this generous benefit.

A steadily increasing number of members chose to send contributions directly from their IRA accounts, which count toward required minimum distributions and reduce taxable income. These gifts can be advantageous for donors in their 70s and are growing in popularity because the process is relatively simple.

We are grateful to receive tributes and memorial contributions from members honoring and remembering dear friends and family members. In a year when mourning and celebrating could not take place traditionally, these contributions felt particularly significant and meaningful.

To our members, we offer heartfelt thanks. For your steadfast support, for your thoughtful gifts, we are honored you share what you can.

For more information about these giving options, or to discuss a gift to the Mono Lake Committee, please contact (760) 647-6595 or anna@monolake.org. ❖



Thanks to members Craig & Marya Phillips, virtual tours are possible for school groups that cannot travel yet.

Watershed moments

news from the Mono Basin Outdoor Education Center
by Rose Nelson

OEC sprouts back for 2021

The Outdoor Education Center (OEC) hibernated as usual through winter, but unlike last year, this summer will be greeted by the stories, laughter, and love of OEC participants. To say there is overwhelming excitement is an understatement.

The Mono Lake Committee and OEC groups are taking every precaution to ensure COVID-19 safety for this year's visitors and our community with health screening measures, smaller group sizes, and a limited number of groups. The Mono Basin has always been a place of healing and we look forward to making that possible this year more than ever. OEC participants will hopefully find some respite at the shores of Mono Lake from the hardships of the pandemic and the weight of ongoing social injustice.

A yearlong closure of the OEC coupled with a record snowstorm means there was a lot to do to prepare for the return of participants to the OEC building itself. We have been hard at work fixing fences, watering thirsty trees, washing equipment, and developing plans for exciting landscape upgrades. We are grateful that our long-term relationships with groups in LA make it possible for them to again make the annual migration from Los Angeles, along the aqueduct, to Mono Lake.

MONO BASIN
Outdoor
Education Center



Our mission is to build understanding and appreciation for the Mono Basin/Los Angeles watershed through education programs and muscle-powered recreational activity; to demonstrate that balanced solutions are possible for meeting the water needs of people and the environment; and to kindle stewardship through service projects that restore and improve the quality of the Mono Basin watershed.

monolake.org/oec
facebook.com/mono.oec

With gratitude

Thanks to the generosity of OEC supporters and the success of the Wild & Scenic Film Festival, we can give every OEC group a transportation grant this year! While the Committee offsets most program costs, groups still need to raise funds for transportation and food, so these grants are crucial to making the trips happen.

Our gear-lending closet is now overflowing with gear thanks to Sonja Williams, leader of longtime OEC group LA WYLD.

A special thank you goes out to Outward Bound Adventures Master Instructor Kenny Preston—longtime OEC program leader, mentor, friend and lifetime advocate for connecting urban youth to nature. Kenny, pictured above, passed away this year and will be missed.



We are thrilled and proud to have the following groups on the Outdoor Education Center calendar for the 2021 season:

- Port of Los Angeles High School (2 groups)
- Homeboy Industries, Los Angeles (3 groups)
- East Los Angeles Performing Arts Magnet School, East Los Angeles (2 groups)
- Outward Bound Adventures / Gang Intervention Crew, Pasadena
- Outward Bound Adventures Youth Group, Pasadena
- East Yard Communities for Environmental Justice, City of Commerce
- Community-based family groups (2 groups)
- Camp Cricket, Modesto
- Pacoima Beautiful, Pacoima
- Generation Green, John Muir and Franklin high schools, Pasadena
- Communities for a Better Environment, Huntington Park
- California State University, Northridge, Chicano/a Studies, San Fernando Valley

2021 Field Seminars



Mono Basin Natural History: Aquatic & Terrestrial Habitats

July 9–11 • David Wimpfheimer
\$182 per person / \$167 for members

Mountain Botany & Ecology

July 23–25 • Michèle Slaton
\$182 per person / \$167 for members

Mono Basin Mammals

August 6–8 • John Harris
\$182 per person / \$167 for members

Falling for the Migration: Bridgeport, Crowley, Mono

August 20–22 • Dave Shuford
\$182 per person / \$167 for members

Restoring Sierra Nevada Bighorn Sheep

September 10–12
John Wehausen
\$182 per person /
\$167 for members

Geology of the Mono Basin

September 24–26 • Greg Stock
\$182 per person / \$167 for members

Arborglyphs & Aspen Natural History

October 2–3 • Richard Potashin & Nancy Hadlock
\$172 per person / \$157 for members

Find more
information online:
[monolake.org/
seminars](https://monolake.org/seminars)

Field Seminar Information

Visit monolake.org/seminars to see complete itineraries; view cancellation, refund, and pet policies; learn about our COVID-19 guidelines and protocols; and register for a Field Seminar.

All Field Seminars and custom trips operate under Inyo National Forest and California State Parks permits.

Questions? Email fieldseminars@monolake.org or call (760) 647-6595.

Naturalist notes

by Nora Livingston

Each equinox and solstice in the Mono Basin is a joyful celebration of the passage into the next phase of nature's magnificence. The basin warmed up from winter, and spring slid away into summer at impossible speed. The snow on the ground has melted, with only teeny patches in the most north-facing and shaded nooks of the low hills and shrinking caps on the mountains that loom atop the Sierra escarpment. The air has warmed to a point where the temperature doesn't drop dramatically in the shade and the days feel luxuriously long already, with even more minutes of light building each day. There are, of course, the late spring snow flurries and wind-driven cold fronts every so often, but the theme, in general, is warmth and renewed life.

As spring springs forward, migration has brought thousands of voices back into the trees and shrubs and on the apex of houses and strung along telephone wires like twinkling lights. Red-winged Blackbirds belt out their love-yells from every tall willow branch off the County Park boardwalk, and songbirds with, dare I say, more beautiful melodies are warming up for their many moments of being star of the show. Wildflowers have uncurled and gently painted the basin with the familiar and lovely pinks and yellows (desert peach and bitterbrush) with the occasional shock of neon red (desert paintbrush) and dark violet (larkspur) mixed in with the sage greens.

Of the many notable wildlife encounters since winter faded away, I loved one in my own yard the most. On a sunny March afternoon, a rare and out-of-place short-tailed weasel in a white winter coat peeked out from a pile of bark and became curious about the humans sitting out enjoying the sunshine. The weasel, or ermine, investigated us while darting in and out of bark tunnels, and tolerated our gasps and quiet squeals of excitement. Eventually, the majestic mustelid skittered across the porch and under the house, hopefully heading up into the



NORA LIVINGSTON

The short-tailed weasel in its winter coat in Nora's yard.

mountains where the best habitat awaits. Soon, that white coat will be replaced with a rich milk chocolate brown with a creamy white underside, a mark of summertime.

Summer means dipping in chilly creeks after a long hot day, floating effortlessly in Mono Lake among the brine shrimp clouds, hearing California Gulls and Osprey call out in the blue skies above the water, watching Yellow Warblers feed their big-mouthed squalling chicks amidst brightly glowing willow leaves, feeling the pull of the granite that beckons to be admired, and enjoying warm, breezy nights while watching the sunset sky turn to twilight, feeling grateful for this season and being fully present in it. Summer is the tall nourishing sunflower in the bouquet of all the wonderful Mono Basin seasons. ❖

Nora Livingston is the Committee's Lead Naturalist Guide. She once stood still in Mono Lake long enough to be surrounded by phalaropes; perhaps they thought she was just another tufa tower.



EIN LIANG

May wildflowers paint the Mono Basin landscape: arrowleaf balsamroot (yellow), paintbrush (red), lupine (purple), and phlox (white-pink).

Audubon Society—will be protected. Those values include a healthy lake ecosystem. And all of us who love Mono Lake can rest easy knowing that our grandchildren will have a chance to see tufa towers through clean air at sunset, watch thousands of phalaropes in flight dipping and turning in unison, and experience all the wonders of a living, thriving Mono Lake.

Saving Mono Lake

In 1994 the State Water Board acknowledged that its transition plan to raise the lake in about 20 years could be thrown off schedule by actual climate and hydrology in the years following the decision (see page 5). They wisely put a date two decades later, in 2014, onto the calendar and said that if the lake had not risen as expected, they would hold a hearing to see if the water exports allocated to DWP might need adjusting to solve the problem.

In other words, the State Water Board's lake protection requirement would not change over the years, but the rules for achieving it might.

The slower-than-expected lake rise scenario, unfortunately, has materialized. And the Board's once-distant calendar date passed nearly seven years ago. On that day, the lake stood 12 feet below the management level, and the Committee agreed to give the lake six more years to climb out of drought. Yet last fall, on the sunny morning of September 28, 2020, the lake stood at 6381.5 feet above sea level, still more than ten feet below the expectation we had back on the same day in

1994 when we watched the Board mandate a healthy lake level requirement.

The timing of the hearing has not yet been set, but Committee preparation is well underway. Updating the lake level forecast model, for example, is essential to providing the analysis needed to consider new rule scenarios, and the Committee team has years of intensive work already complete.

There are also collaborative paths to explore. The goal of raising and managing Mono Lake at the healthy 6392-foot level is endorsed by everyone from air quality regulators to land management agencies to fellow conservation organizations to the Mono Lake Kutzadika'a Tribe to DWP itself.

DWP's vast water diversions in the last century drove Mono Lake down 45 vertical feet and pushed the ecosystem to the edge of a cliff. But with concerned citizens raising the alarm, the State Water Board changed the outlook for Mono Lake and charted the path to a sustainable future that returns the lake and its birds and wildlife to health. All we have to do is follow that path. It is in everyone's interest to step back from the brink by raising Mono Lake to the mandated healthy level. Now, 27 years after the State Water Board took action, it is more urgent than ever. ❖

Geoff McQuilkin is the Mono Lake Committee's Executive Director. He was at the State Water Board vote in 1994 and at Mono Lake's shore to measure the lake level in 2020 with the Committee team. You can see the video online at monolake.org/September28.

Component 3: Evaporation

Lake evaporation is the primary outflow from Mono Lake. Unfortunately, estimating evaporation from saline Mono Lake is challenging, and long-term records are not available. Preliminary analysis of regional data suggests evaporation rates may have increased marginally between the historical and recent periods. If Mono Lake has experienced a similar increase in evaporation rates, modeled results would have underestimated cumulative evaporation outflow by up to 100,000 acre-feet or roughly two feet of lake elevation.

Component 4: DWP stream diversions

In addition to natural processes, the model incorporated DWP stream diversions and Grant Lake Reservoir operations into its Mono Lake level projections. The model assumed that DWP would be unable to divert all of the streamflow allowed in some years due to operational constraints. Since 1995, however, DWP has been able to fully divert all authorized exports each year. This difference accounts for more than a foot of "missing" lake elevation.

It all adds up

In addition to these four primary water components, other

unresolved factors like groundwater recharge also explain why the lake is rising more slowly than expected. The takeaway is that over time, what may seem like relatively small changes in the main components of Mono Lake's hydrology can add up to hundreds of thousands of acre-feet of water and can explain why the State Water Board expected that their management rules would result in a lake level higher than we see today.

If recent hydroclimate trends remain steady into the future, Mono Lake's recovery will remain stalled. Because the Board recognized the limits of model projections and anticipated that Mono Lake might rise more slowly than expected, they built in a hearing process to review the rules that govern DWP's stream diversions—the only part of Mono Lake's hydrology that can be controlled. While the State Water Board's requirement to protect Mono Lake by raising it to 6392' will not change, it's time to consider whether the stream diversion rules should. ❖

Maureen McGlinchy is the Committee's Hydrology Modeling & Membership Specialist. She has enjoyed two spring seasons watching cliff swallows nest outside her home office window but is excited to get back to her desk at the Committee office.

Reserve is also concerned about the destruction of unique tufa resources which, unlike trampled and overgrazed vegetation, cannot be restored.

Many visitors know of the warm spring between South Tufa and Navy Beach on the south shore of Mono Lake. Over the winter, State Reserve staff documented severe encroachment by 200–400 horses, leading to damage to the bubbling spring, tufa, and surrounding wetland.

In light of the wildlife habitat, freshwater springs, and tufa damage, the Mono Lake Committee has been monitoring the issue since 2015 and supports quick and careful agency action. Additionally, visitors should be aware that these are wild, not tame, animals, and people should never approach or attempt to pet or feed these horses.

More to the story

If you see wild horses at Mono Lake, it is important to know that they bring with them a complicated story. Horses are protected by federal law and their numbers are dramatically increasing across the West. Regionally, the multiplying horse population has pushed these iconic creatures out of their regular range, putting them into direct competition with the diverse bird life at Mono Lake such as wetland

dwelling shorebirds, ducks, and songbirds, as well as causing inadvertent but significant impacts to rare alkali meadows, wetland habitat, and world-renowned tufa towers.

The Mono Lake Committee supports the Inyo's and State Parks' urgent investigation of this issue, as well as projects to protect the tufa, springs, wetlands, and wildlife on the shores of Mono Lake. ❖



PHOTO COURTESY OF JACK & PETRA CLAYTON

Horses are an increasing danger to people driving on Highway 120 East in the Mono Basin.

Tribe's effort to achieve satisfactory analysis and mitigation, and their hope to establish a more formal government-to-government consultation process for this project, was rejected.

A serious threat to pedestrian safety

The Tribe, the Lee Vining community, the fire department, and the Committee had all strongly advocated for pedestrian and bicycle safety, asking the County to require a pedestrian route linking the project with Lee Vining as a condition of project approval. Walkable communities and pedestrian safety improvements are a fundamental component of the Mono Basin Community Plan and the Land Use Elements within the Mono County General Plan.

Without a pedestrian route the project site would continue to be isolated by a high-speed, four-lane highway. Kids in town or at the project site would be unable to safely walk, skateboard, or ride a bike to visit friends, go to or from school, sports team practice, or the market unless they traversed a major intersection and half a mile of dangerous highway shoulder. The loss of Lee Vining's existing walkability was a major concern, and the community urged that visitors and residents of all ages should not have to live in a town

effectively split in two by a highway corridor unsafe for pedestrians and bicyclists.

Project impacts outweighed benefits

After a five-year process, hundreds of written comments, and overwhelming public and local criticism, the developer of the Tioga Inn proposal was unwilling to commit to a project that avoided or carefully mitigated significant impacts. As a result, the Mono County Board of Supervisors were pushed to make a difficult decision. With one Supervisor recused due to a conflict of interest, a 3–1 or 4–0 vote was required for approval. The final 2–2 vote that resulted in project denial reflected the failure of the developer to offer a project that outweighed the negative impacts and benefitted the public and the Mono Basin.

The Board's vote affirmed the value of protecting public safety, respecting Tribal concerns, and preserving the character of Lee Vining, the scenic integrity of the Mono Basin, and Mono County's premiere gateway to Mono Lake and Yosemite National Park. ❖

Staff migrations

by Claire Landowski

The arrival of Osprey, Green-tailed Towhees, and Yellow-rumped Warblers in the Mono Basin signals another migration: the arrival of our seasonal staff for summer work. By the time this *Newsletter* arrives in your mailbox, our four interns will have nested in Lee Vining and will be greeting members and friends at the bookstore counter.

As birds and interns alike migrated to Mono Lake for the summer we rounded out the intern crew. We were pleased to welcome Mono Lake Intern **Bree Salazar** to the Mono Lake Committee. Bree is from the Los Angeles area and has worked in the Mono Basin previously, at the Eastern Sierra Interpretive Association bookstore in the Mono Basin Scenic Area Visitor Center. She most recently worked for REI and as an ambassador for Latino Outdoors' Inland Empire chapter. We are thrilled have Bree on the team alongside interns **Ryan Garrett**, **Will Hamann**, and **Trevor Lemings**.

Flexible and creative COVID-modified operations continue

This spring Mono County moved from California's red tier to orange to yellow in response to improved access to COVID-19 vaccines and a dropping positive test rate. Though officially these changes lifted many of the restrictions in place for retail operations like our Information Center & Bookstore and for offices, we plan to make changes slowly and deliberately, with science and safety at the forefront of our decision making, as always.

We increased the store capacity to ten people, and will likely raise that number again sometime in early summer if it becomes safe to do so. Our rigorous sanitation procedures



ELIN LJUNG

The Mono Lake Committee Information Center & Bookstore is open 9:00AM–5:00PM seven days a week this summer.

and other COVID-19 safety precautions are still in place. Our office operations are also continuing in much the same pattern as they have for the past year: most staff members will remain at their home desks for the foreseeable future, but some will rotate into the office a few days per week to help support bookstore staff and greet members and friends.

We're also very happy to say that all of our permanent staff members have now been fully vaccinated, and the Mono Lake Interns were all vaccinated by Memorial Day. We are both grateful to and proud of Mono County for the efficient vaccine roll-out, and we're so excited to be able to hug our extended families and friends again.

If you're planning to visit this summer, please keep in mind:

- Space on tours will likely be limited, so call or sign up online early: monolake.org/freetours
- COVID-19 safety precautions will remain mandatory for all bookstore visitors and tour participants
- We are not hosting visitors to our back office area, but phone calls or emails are encouraged for both general information and specific questions: (760) 647-6595 or info@monolake.org

We look forward to seeing you this summer or in the future if you migrate through the Mono Basin. ❖

Claire Landowski is the Committee's Office Director. She helped replace the South Tufa boardwalk in April and is planning to reuse some of the old boardwalk sections for garden beds—maybe next year the local chipmunks will share some kale with her.



ELIN LJUNG

South Tufa tours are back up and running. Reserve a spot on a daily 6:00PM tour at monolake.org/freetours.



From the mailbag

News from members and friends

by Ellen King

Mono Lake is important to migrating birds, but also to people who visit, wanting to reconnect with places they love. This year in particular that reconnection takes on added meaning. Thank you to everyone who sent contributions in honor or in memory of friends and loved ones. Your support is what makes our work to protect this special place possible.

In honor

Peggy & Ron Cecchetti of Placerville sent a contribution in honor of the birthday of **Jan Le Pouvoir**. **Diane Estrella** of South Gate gave a gift in honor of the birthday of **Madeline Bryant**. **Dawn Harris** of Carson City, NV made a donation in honor of her grandson **Jaxon Memphis Pau**—"may you be able to witness and explore the beauty of this special place." **Linda Krop** of Santa Barbara sent a contribution in honor of **Dana Jacobsen**. **Richard & Sharon Marcus** of Berkeley gave a gift in honor of **Isobel Marcus & Dylan Chappel**. **Angela Moskow** of El Cerrito made a donation in honor of **Peter Vorster**. **Gayle Petersen** of Petaluma sent a contribution in honor of **Fran Hunt**.

In memory

Pam Albers of San Diego gave a gift in memory of her mom **Jane Bressler**. **Caryn Bailey** of Alamo made a donation in memory of **Harold Bailey**. **Mary Jane Baird** of San Anselmo sent a contribution in memory of **John Hetzner**. **Lyn Ballam** of Tucson, AZ gave a gift in memory of her mother **Rosalind Limbaugh**: "My mother always gave a yearly donation. Near the end of her life, we were able to take a trip to Mono Lake. The altitude really affected her, but she was determined. One day we walked to the water's edge and the next day we took a guided canoe trip. I will forever be grateful for the kindness of the staff who carefully helped her in and out of the canoe." **Bob Battagin** of Woodacre made a donation in memory of **Rich Stallcup**.

Jamie Brooks of Carmel sent a

contribution in memory of **Gilbert & Carol Ashor**.

Dale Dickau of Yorba Linda gave a gift in memory of **Sandra Irwin**. **Steve Evitt** of Somerville, MA made a donation in memory of **Bill & Gisela Evitt**. **Richard Feldman** of Los Altos sent a contribution in memory of **Carl Feldman**. **Jim Flores** of Lomita gave a gift in memory of **Gloria Flores**. **The Golden Trout Natural History Workshop, Inc.** sent a contribution in memory of **Ginny Harrington**, "who is remembered for her deep love of family and friends, and how much they loved her in return." **Deborah Hickey** of Ridgecrest gave a gift in memory of **Dennis Arndt**. **Nancy Johnston** of Seattle, WA made a donation in memory of **Al Johnston**. **Patrick Kennedy** of Culpeper, VA sent a contribution in memory of his wife **Alice Kennedy**, "who fell in love with the beauty and serenity of the Eastern Sierra and Mono Lake."

Terry Kosaka of Los Angeles gave a gift in memory of **Jackie White**. **Thomas Leary** of Dover, MA made a donation in memory of **Evelyn Oswald**. **Carol Mathews** of Walnut Creek sent a contribution "in loving memory" of **Robert Mathews**. **Wendy Norman** of Irvine gave a gift in memory of her sister **Gail Kingsley**. **Kathryn Rogers** of Cumming, GA made a donation in memory of **Terry Molano**. **Phyllis Smoyer** of Hockessin, DE sent a contribution in memory of **Michael Colpo**. **Chris Swarth** of Mariposa gave a gift in memory of **David Gaines**. **Jennifer Talhelm** of Albuquerque, NM made a donation in memory

of **Alan Talhelm**. **Bruce Tiffney** of Santa Barbara sent a contribution in memory of **J. Robert Haller**, "a teacher, researcher, and friend who introduced us to this extraordinary place."

Lynne Tracy of Menlo Park sent a contribution in memory of **Timothy Tracy**. **Carol Wardle** of San Jose gave a gift in memory of **Chris Wardle**. **Jason Welle** of Ventura made a donation in memory of **Tony Welle**. **Bruce Wearda** of Bakersfield sent a contribution in memory of **Alexandria Mata**. **Richard Wiebe** of Clovis gave a gift in memory of his wife **Billie Jean Wiebe**. **Jennifer Winn** of Palm Desert made a donation in memory of her husband **Eugenio Aburto**. **Kathy Young** of Chula Vista sent a contribution in memory of **Virginia Stilphen**.

We received gifts in memory of **Tad Borek** from **Virginia Barton** of San Francisco, **Tom Burch** of Greenbrae, **Katie Kelly** of San Anselmo, **Michael Mahony** of Santa Fe, NM, **James Notarianni** of Philadelphia, PA, **Alyssa & Pat Plicka** of Los Gatos, and **Kevin Psonak** of Longmeadow, MA.

We received gifts in memory of **Bill Collins**—"an enthusiastic photographer who loved Mono Lake and vigorously supported its protection"—from **Dee & Allan Abrahamse**, **Ellen Butler**, **Sandra Kroll**, **Elisabeth Moore**, **Renee Simon**, and **Sydney Simon**, all of Long Beach, and **James Hall** of Laguna Beach. ❖

Ellen King is the Committee's Membership Coordinator. After a year of working at home she is looking forward to the hum and bustle of working at the office.



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Reserve your spot at monolake.org/freetour.

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