A male Osprey (Pandion haliaetus) at Mono Lake delivering a fish (not from Mono Lake) to his mate at their nest atop a tufa tower. Osprey can often be seen at South Tufa.

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.

A t 6:30AM every morning a Red-shafted Flicker lands on the railing of the deck outside my bedroom, and pecks with determination. The jackhammering noise always startles me and the vibrations shake the whole house. He arrived in early April, and has come a-tapping every single morning since.

The morning flicker visit is a little bit like how it feels when summer comes knocking on the door of the Mono Basin. You know it’s coming—in fact every year, right around the end of March you start getting excited about things like bare feet. Yet, when it hits, suddenly the summer clouds are overhead and you’re standing there warm to the bone with your T-shirt on, it’s a little bit shocking.

This issue of the Newsletter features one of the most exciting milestones in the history of stream restoration at Mono Lake: the synthesis report. Twelve years of courtroom litigation, rugged field work, collaborative meetings, dedicated monitoring, passionate debate, and steadfast determination on the part of many people have gone into this report. Upon completion, it will point the way for stream restoration in the Mono Basin for the foreseeable future, change the way it recovers from the damage of the past, and determine what it will look like for future generations.

The development of the synthesis report was ordered by State Water Board in 1998. Since the day the order was written the Mono Lake Committee has worked tirelessly to prepare for this moment, and yet, somehow we find ourselves a bit surprised that the day has actually arrived.

To understand the magnitude of what the report means for the Mono Basin, you’ll have to read Lisa’s article on page 3. And there are more of these good surprises in the pages that follow too … a budget solution for state parks … a beaver on Lee Vining Creek … hope for Mill Creek … a new trail to the lake……

And then, get on out there, it’s summertime! Change is afoot, and Mono Lake has infinite surprises in store.

—Arya Degenhardt, Communications Director
Turning research into restoration

Twelve years of research and monitoring chart new course in unparalleled restoration process

by Lisa Cutting

Sixteen years after the precedent-setting decision by the State Water Resources Control Board to save Mono Lake and its tributary streams—and 12 years after detailed restoration orders were issued—Mono’s recovery is again approaching a watershed event.

As called for in 1998 in Order 98-05, the State Water Board-appointed stream scientists (see box on page 5) are in the process of finalizing recommendations to refine restoration flows for Rush, Lee Vining, Parker and Walker creeks. They have been hard at work “synthesizing” all monitoring data, field observations, and current scientific research to inform their recommendations, which are expected to be finalized this summer.

The recommendations and supporting documentation have been released in a draft report that, as of press time, all interested parties including the Mono Lake Committee have reviewed and commented on. Achieving the best outcome for Mono Basin streams is critical to their continued recovery.

This is the most important work the Mono Lake Committee has done for the health and restoration of the tributary streams since winning their rewatering in the courtroom in the 1980s and setting their restoration in motion at the State Water Board in the 1990s.

And for the streams, fish, songbirds, and riparian forests, this is the critical moment that will influence their recovery and health for decades to come.

What’s in a title?

Actually, in this case quite a bit: (Draft) Mono Basin Stream Restoration and Monitoring Program: Synthesis of Instream Flow Recommendations to the State Water Resources Control Board and the Los Angeles Department of Water & Power, lays out exactly where we are in the process of securing the necessary flows for the streams.

The report takes all the information the stream scientists have collected through monitoring and studies throughout the years, and by applying a fairly rigorous analytical strategy, it identifies new flow regimes for the creeks. In general, the flow recommendations call for higher spring peak flows, lower winter base flows, and a much more sophisticated range of intermediary flows that address specific needs of the system, such as riparian vegetation recruitment and flows that stimulate benthic macroinvertebrate production.

The synthesis

The synthesis part of the process was perhaps the most challenging. It’s (relatively) easy to say what flows are needed in the summer for trout or the amount of water needed to move sediment and scour out pools. But when you try to combine all of those necessary flow amounts and address all the different needs of the system as a whole, it becomes significantly more complicated.

The stream scientists used an approach called Number of Good Days (NGD). First, they identified the optimum flow ranges for 14 ecosystem components—these flow ranges would achieve desired ecological outcomes for a range of dates when that particular flow should be delivered. For example, between October 1 and March 31 the optimum flow in Lee Vining Creek for brown trout winter holding habitat is 16–22 cubic feet per second (cfs). Similarly, to achieve floodplain deposition, movement of coarse sediment, and scouring of deep pools on Rush Creek, a flow of between 450 and 600 cfs at some time between April 1 and September 30 is necessary. Years when this threshold is

Continued on page 4
reached would be counted in the Number of Good Years (NGY) analysis. By calculating the NGD and NGY for each biological and physical need of the stream, the scientists were able to synthesize all the information and optimize an annual flow regime for both creeks based on runoff-year type.

The final goal of this process is to refine and replace the existing streamflows that the Los Angeles Department of

Water & Power (DWP) is required to deliver to Mono Basin streams under the State Water Board restoration orders, while simultaneously working within the parameters of maintaining Mono Lake’s continued recovery and rise, and ensuring that DWP is able to achieve its permitted water export.

**The Committee’s mantra**

Throughout this process the Committee’s primary concern has always been DWP’s ability to reliably deliver the new required flows. And this concern is justified. There have been times in the past—both because of operating errors and lack of infrastructure capacity—that Rush Creek and Lee Vining Creek have not received their required flow amounts. In all fairness, the Mono Basin system was designed in the 1930s to divert and export water, not manage stream flows. But as everyone involved now realizes, the absence of the big spring runoff events will “greatly constrain the rate, and likely quality, of long-term recovery.” The Committee will continue to do everything possible to make sure the best flows are both identified and reliably delivered.

Because the past 12 years have demonstrated that the current infrastructure will not be able to reliably deliver some of the recommended flows, the Committee is concerned that the scientists’ recommendations for delivering higher flows will not be possible. The report calls for significant coordination with Southern California Edison (SCE), including changes to its operation of the reservoirs above Grant Lake Reservoir. It may be necessary to change aqueduct facilities on Lee Vining Creek and elsewhere as well. Additionally, to achieve maximum reliability and ensure compliance with the pending order, it may be that DWP will need to add additional infrastructure capacity with new or improved water conveyance facilities that provide greater operational control.

There is also the issue of day-to-day management of the aqueduct facilities. The new flow requirements “shape” the releases over a longer period so that they better emulate a natural hydrograph. The report also specifies Grant Lake Reservoir management levels to maintain colder-water releases longer through the summer. Thus, DWP will have more operational requirements to adhere to while still maintaining its current export operation and its mandate to restore Mono Lake’s level. The Committee will be paying close attention to DWP’s forthcoming operational plan, making sure that the water accounting in the Mono Basin—streams, Mono Lake, water exports—all balance out.

**What the Committee had to say about the draft report**

The Committee’s comments on the draft report were comprehensive and detailed (and over 50 pages long). In addition to our in-house restoration team, we assembled additional devoted Mono Lake experts to help us out and lend their expertise (see page 24).

The Committee’s approach to protection and restoration at Mono Lake has always been based in science—using the best possible science in combination with an adaptive management strategy to consistently inform and refine the application of restoration actions. The synthesis report process has been consistent with that approach, using decades of field data and annual monitoring to track trends and inform recommendations.

While there are always more studies that can be done, the analysis and recommendations within the draft synthesis report are an impressive representation of the creeks and their ecological needs. The Committee is generally pleased and satisfied with the approach taken in the draft report, and recognizes that the individual flow recommendations will change as the process plays out.

*Continued on page 5*
It would be impossible to fit all of the Committee’s comments into this article, so these are the highlights (the full comments can be read on the Mono Lake Website, at monolake.org/streamflows):

- Balancing water diversions more equitably between Rush and Lee Vining creeks is the right thing to do.
- DWP should stop using Lee Vining Creek water to help supply peak flows for Rush Creek.
- Lowering winter base flows is acceptable on the condition that winter flow monitoring continue in order to ensure no unanticipated adverse effects.
- Walker and Parker creeks should remain flow-through (no diversions) in order to contribute flow variability to lower Rush Creek.
- Proper management of Grant Lake Reservoir is critical to Rush Creek’s restoration (to maintain a higher minimum reservoir level for temperature control, and to facilitate spills that will help achieve peak flows) and will require DWP coordination with SCE.
- Monitoring is critical to restoration because it drives the adaptive management process and ensures that restoration is on track. Future monitoring is specifically outlined by the stream scientists, and the Committee has additional suggestions that specifically address remaining areas of uncertainty.
- There needs to be monitoring specific to the effects of climate change. The final report needs to consider and include ways in which climate change is anticipated to affect restoration (e.g. earlier spring peak runoff timing associated with earlier, warmer nighttime temperatures).
- Correct year-type forecasting is critical to identifying the proper flows that should be delivered each year.

Committee staff went through the draft report with a fine-toothed comb, looking for data errors, misinformation, and inaccuracies—anything that might interfere with the legal and scientific record—offering corrections where possible and calling for additional research when necessary. Thirty-two years of experience have taught us that these documents become the map that guides us into the future and they must be accurate. If the map is accurate we will stay on course and restoration will reach the the mandated goals as outlined through termination criteria.

**Termination criteria on the horizon**

Termination criteria are the end-point goals established by the State Water Board in Order 98-07 that DWP and the stream scientists are striving to achieve. The synthesis report is a critical step in achieving goals such as trout size and population numbers, acreage of riparian vegetation habitat, and physical stream components such as channel length and sinuosity. While restoration of the creeks will take decades to reach, meeting the termination criteria will signal that restoration is progressing and some of the intensive monitoring that DWP is required to do can be scaled back.

Termination criteria are based on conditions that existed prior to diversions and are an indication of a healthy, functioning system. It is possible that the creeks may never achieve some of the specific targets, but for now the termination criteria continue to drive the restoration program.

**It’s all a (very long) process**

The Committee and other interested parties including California Trout, the California Department of Fish & Game, and DWP have filed comments to the State Water Board on the draft synthesis report. As this Newsletter goes to press, the

*Continued on page 24*

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**The State Water Board-appointed scientists**

The scientists behind the draft synthesis report recommendations

Realizing that the restoration program at Mono Lake would have its challenges, the State Water Board had the foresight to hire a team of experts to lead the way.

Bill Trush, PhD, UC Berkeley, principal of McBain & Trush, Environmental Conservation & Ecological Services, was selected to oversee the physical geomorphology and riparian vegetation components. Chris Hunter, Chief of Fisheries for Montana Fish, Wildlife & Parks, was chosen to guide the fisheries recovery. In 2009, Hunter retired from the appointment and Ross Taylor, who worked closely with Hunter for years on Mono’s stream restoration program, assumed the lead fisheries role.

While these scientists have their specific areas of expertise, they and their team of experts have always worked together as a group, blending knowledge and recommendations into the on-the-ground restoration that we see at Mono Lake today.

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PHOTO COURTESY OF ROBERT VESTAL

**The State Water Board-appointed scientists with DWP and Mono Lake Committee staff at the March 16, 2010 restoration meeting.** These meetings provide a venue to discuss upcoming operational activities and State Water Board-related requirements such as the synthesis report.
State budget crisis continues to threaten Mono Lake, Bodie state parks

by Morgan Lindsay

Summer brings many seasonal travelers to the Mono Lake Tufa State Natural Reserve, from California Gulls returning to their island nesting grounds to human visitors from all over the world eager to hike, birdwatch, and experience Mono Lake. Unfortunately, the summer sunshine also heralds the heating up of this year’s state budget negotiations. Once again, the governor’s budget cuts place all state parks in peril, including Mono Lake and Bodie.

Last year, the budget battle for California’s state park system lasted into September and ended with the governor’s decision—in response to strong public pressure—to keep all state parks open, but with drastic cuts totaling $14 million. As a result, over 60 parks statewide were forced to shut down part-time. Bodie and Mono Lake remained open, but just barely, with deep reductions in staffing.

Last year’s emergency was only the latest in a long series of budget cuts responsible for state parks’ current $1 billion backlog in necessary maintenance and repairs. At nearby Bodie State Historic Park this means crucial “arrested decay” projects to patch roofs and shore up leaning buildings are delayed until it becomes even more costly to preserve these historic structures.

Governor Schwarzenegger’s proposed 2010–2011 state budget strips all funds away from state parks. The governor’s proposal then offers to “backfill” or return funds to state parks if, and only if, the state sees new revenue come in from a hotly debated and as-yet unapproved oil drilling project off the coast near Santa Barbara. But Mono Lake and Bodie—and the entire state park system—already stand tall on their own merits as popular public destinations; they shouldn’t be used as pawns in other political games.

To the rescue: State Park & Wildlife Conservation Fund Act

There is an alternative to the endless cycle of planned park shutdowns and last-minute reprieves. The proposed State Park & Wildlife Conservation Fund Act creates a new, reliable source of funds through a vehicle license fee increase. In return, all Californians would receive free entrance to state parks, and a dedicated funding source for state parks would be protected from yearly cuts and political maneuvers. This measure, which the Mono Lake Committee supports, is on track to appear on the ballot this coming November.

The state’s financial crisis is real, and still escalating. But cutting funds from state parks doesn’t help solve the problem and in the long-term only worsens the budget gap. Parks are a vital centerpiece of California’s tourist economy with more than 75 million visits from travelers who spend over $4 billion every year. In this way, California’s state parks act as economic engines, generating far more in park-related tax revenue than they cost to operate. One study found that on average, state parks generate $2.35 tax dollars for every dollar spent to keep them open.

What can I do to help?

Looking ahead, the governor’s May 15 budget revision will determine what actions will be needed to support state parks this summer. Stay tuned to the state park action alert center at monolake.org/savestateparks, where we post new developments as they arise and make it easy for you to express your support for state parks—especially Mono Lake and Bodie.

Thank you award-winning Mono advocates

Thanks to the enthusiastic response from dedicated members like you, the Mono Lake Committee delivered thousands of letters and petition signatures to key Sacramento decision makers last summer in support of Mono Lake, Bodie, and all California state parks.

In recognition of this timely and impressive effort, the Committee was one of 120 organizations recognized as a State Parks Grassroots Champion by the California State Parks Foundation. Sacramento Policy Associate Betsy Reifsnider accepted the award for the Committee. Last summer, Betsy was instrumental in hand-delivering literally hundreds of pounds’ worth of concerned letters speaking up for Mono Lake.

We are honored by this award, but the credit really belongs to all the Mono Lake Committee friends and members who spoke up in defense of state parks. We couldn’t have done it without you.

Morgan Lindsay is the Committee’s Project Specialist. She recently appeared in “Fiddler on the Roof,” her third community theater adventure this year.
Discussion continues on the Los Angeles Department of Water & Power (DWP) concept for a “solar park” to be located on Los Angeles-owned lands and the dry lakebed of Owens Lake. The solar park would cover up to 80 square miles of land, generate a vast amount of solar power—up to 5,000 megawatts’ worth, more than twice the output of Hoover Dam—to supply Los Angeles, help replace coal as a power source, and commendably lower the city’s greenhouse gas emissions.

The potential for renewable power to be generated in a responsible manner that is mutually beneficial for the City of Los Angeles and the environment and people of the Eastern Sierra is intriguing, yet DWP’s long and often contentious history in the Eastern Sierra raises many issues. With this in mind, I joined with representatives from other Eastern Sierra conservation groups in March for a trip to Los Angeles to discuss the solar park with DWP General Manager David Freeman.

Our goal was to have a discussion about a set of conservation-based principles, jointly developed by our Eastern Sierra groups, that describe how a renewable energy vision might be approached successfully by DWP.

Based on our organizations’ combined extensive experience with the unique challenges of working with DWP, we called for ambitious master planning that is visionary, comprehensive, transparent, and inclusive. Additionally, we discussed the need for a solar park to operate under strong and reliable long-term oversight, deliver multiple benefits, and complete existing City commitments throughout the Eastern Sierra.

The results? The meeting was an opportunity for a frank conversation and an early phase of a much longer discussion. While some points, such as DWP meeting its existing environmental commitments, gained Freeman’s immediate support, others did not.

For example, we offered general support for the vision of producing renewable low-carbon solar power that contributes to achieving the City’s renewable energy goals. Freeman, however, emphatically underscored that DWP’s concept goes much farther—DWP seeks to produce power far beyond LA’s needs and to supply that power to Southern California Edison, Pacific Gas & Electric, and other California utilities.

The challenges ahead will likely be in areas that are often difficult for DWP: collaborative and comprehensive planning, transparency, and inclusion of the Eastern Sierra as an equal partner in the process. The Committee will continue to be involved as this project develops.

Planning for Owens lakebed advances, offers a model

On a separate track, DWP kicked off an Owens Lake master planning process just a few days after my visit to Los Angeles, showing that collaborative planning can be done and offering a model that could be used for the solar park.

The facilitated process involves a group with diverse interests in Owens Lake and the process is designed to develop a master plan for the lakebed—a plan which will identify how different zones will be managed. This will hopefully lead to the permanent protection of habitat areas that greatly benefit wildlife. A master plan will also facilitate progress in the ongoing effort to control toxic dust storms at the lake and will identify areas where DWP might utilize solar panels to simultaneously generate power, control dust, and possibly even save water.

I attended the initial meeting to offer lessons from habitat protection at Mono Lake, but Committee participation in the Owens process will be limited. Our friends at Eastern Sierra Audubon, California Audubon, the Owens Valley Committee, and the Sierra Club are the lead representatives of the bird, wildlife, and conservation interests in the process.

This process at Owens Lake—which is focused solely on the lakebed and doesn’t include other City-owned lands—offers a model for how the separate, larger solar park discussion might be accomplished. It remains to be seen if DWP will take the opportunity to do the right thing.
**Mono Basin Sage Grouse considered endangered, but protection is denied**

The US Fish & Wildlife Service has determined that even though a population of Greater Sage Grouse found in the Mono Basin and areas of western Nevada warrants protection under the Endangered Species Act, protection is not possible because of a lack of resources, due to the need to address higher-priority species on the list.

Over the years, Greater Sage Grouse population numbers have declined significantly. Primary threats to Mono Basin Sage Grouse populations include degradation of habitat caused by grazing and invasive noxious weeds; fragmentation of habitat caused by development, roads, fences, and transmission lines; off-road vehicle use; drought; and the loss of sagebrush due to the encroachment of piñon and juniper trees.

The Mono Basin Sage Grouse is the southwestern-most population of Greater Sage Grouse and is a geographically isolated and genetically unique subpopulation. This particular subpopulation is important because of its isolation, which could prove to be critical to the survival of the species as a whole in the future.

**Mono Basin streams stocked for fishing opener**

Fishing opener, the last Saturday in April, is an important time for Lee Vining and the region. This year there was some local concern sparked by incorrect rumors about whether or not streams and lakes would be stocked with fish.

The Department of Fish & Game announced a new pre-stocking evaluation process that considers sensitive and listed species and habitats affected by hatchery-raised rainbow trout, which postponed stocking efforts in some areas. However, most routinely-stocked lakes and streams in the Mono Basin were cleared to be stocked, including Rush, Lee Vining, and Mill creeks; Lundy Lake; Grant Lake Reservoir; and many others. Other major Mono County waters, like Crowley Lake and Bridgeport Reservoir, were also approved for regular fish stocking.

For updated information check the Fish & Game list at dfg.ca.gov/fish/Hatcheries/FishPlanting/Evaluation.asp.

**New partnership coordination program for Eastern Sierra**

The Eastern Sierra Interpretive Association, in partnership with the Inyo National Forest and the Bishop Field Office of the Bureau of Land Management, has announced the creation of a new public lands partnership coordination program. Mammoth Lakes resident Lisa Isaacs has been selected to lead the program and will work with public land management agencies and local organizations to coordinate and provide additional stewardship opportunities to the public.

At times there is a disconnect between the vision and goals of environmental organizations and the public land agencies responsible for managing those lands. This rift can be challenging to navigate. As Partnership Coordinator, Isaacs will help to bridge this gap of understanding and facilitate cooperation and collaboration between the groups so that projects can happen more easily. This translates into a more effective, better-coordinated system for getting the public out on public lands doing work projects, assisting with stewardship and interpretive programs, and providing extra educational opportunities that will supplement existing programs.

**Schwarzenegger appoints Robert Peters as interim District 4 Mono County Supervisor**

Governor Schwarzenegger appointed Robert Peters to the Mono County Board of Supervisors, representing District 4. The District 4 Supervisor position has been vacant since October 2009 when Supervisor Bill Reid passed away. Peters will serve in this capacity Continued on page 9
until a new supervisor is elected at either the June 2010 primary, or in the case of a run-off election, the November 2010 general election.

Bridgeport resident Peters has been active in community issues—serving on the Mono County Tourism & Film Commission and the Bridgeport Regional Planning Advisory Committee. He is specifically interested in economic development opportunities for Mono County communities.

**Sierra women celebrated**

Visitors stopping by the Mono Lake Committee Information Center & Bookstore this summer will see a new display showcasing Committee co-founder Sally Gaines as part of the Eastern Sierra Cultural Heritage Alliance (ESCHA)’s latest project, Celebrating Women of Eastern California. A network of museums and interpretive centers along Highway 395 from Bridgeport to Ridgecrest, ESCHA is dedicated to enhancing awareness and preservation of the Eastern Sierra’s cultural resources.

With over seventeen venues collaborating, the range of exhibits spans the height and breadth of the Sierra’s diverse history. Also in Lee Vining, the Old Schoolhouse Museum will feature Nellie Bly O’Bryan at her famous upside-down house, and the Forest Service Visitor Center will host “Mono Basin Native American Women: Their Arts and their Lives,” an exhibit sponsored by the Eastern Sierra Interpretive Association. Explore the full range of events and exhibits at eschainfo.org.

**Mono Basin Resource Stewardship Project funds flowing again**

Last spring, the Mono Basin Resource Stewardship Project, which is funded by a grant from the Sierra Nevada Conservancy, was put on hold due to the California state budget crisis. Thankfully, this spring state funds did come through and the Mono Lake Committee will once again work with grant partners Friends of the Inyo and the US Forest Service to implement projects this summer.

The two-year Resource Stewardship Project began in 2008 primarily to assist in restoration of riparian and lakeshore habitats and to maintain healthy land and water resources as visitation to the Mono Basin increases. This summer staff and volunteers will work on projects that include invasive plant removal, stream monitoring on Rush, Lee Vining, Mill, and Wilson creeks, education and outreach to youth and the general public, air quality monitoring, and restoration and monitoring of areas impacted by illegal off-highway vehicle use.

If you are interested in volunteering for a Resource Stewardship work day this summer, contact Erika (erika@monolake.org) at (760) 647-6595.

**Los Angeles gathers experts for Recycled Water Advisory Group**

by Elin Ljung

Last fall, the Mono Lake Committee was invited to join Los Angeles’ Recycled Water Advisory Group. The City Department of Public Works has formed this group along with the Los Angeles Department of Water & Power in an effort to expand the recycled water program for the future of LA’s water supply.

In the next ten years, the City plans to increase the production and use of recycled water from 8,000 to 50,000 acre-feet per year. The Recycled Water Advisory Group will be instrumental in helping the City proceed with that plan.

LA has been using recycled water successfully since 1979, primarily for park irrigation and industrial purposes. Mono Lake has long been a part of the recycled water discussion—in 1989 the state legislature passed AB444, a bill that established funds to help LA build additional water recycling facilities. The bill was specifically intended to offset water diversions from the Mono Basin.

Guided by the Advisory Group, LA hopes to “achieve a long-term sustainable supply of water and reduce [its] dependence on imported water.” That’s good news for Northern California, the Colorado River, and of course, the Mono Basin—all of which contribute to LA’s water supply.

Executive Director Geoff McQuilkin is representing the Committee in the multi-stakeholder group, which also includes a number of Los Angeles conservation organizations.
Anticipated restoration offers hope for Mill Creek

by Morgan Lindsay

The welcome heat of late spring brings fresh snowmelt gushing down Mono Lake’s tributary streams and triggers a surge of new life after the long winter. Black cottonwood buds swell with the prospect of bright green leaves; quaking aspens display cascades of feathery catkins; mayflies and caddis flies hatch by the hundreds, a tasty treat for brown and rainbow trout; and Song Sparrows sing melodies while staking out their nesting territories. With such visible signs of health in full display, it’s difficult to imagine that only 30 years ago the same creeks were dry and lifeless.

This creek is not like the others

This Newsletter features an in-depth look at the decades of successful restoration work still ongoing for Rush, Lee Vining, Parker, and Walker creeks—but Mill Creek, the third largest in the Mono Basin, is still struggling to survive. In their 1994 recommendations to historic Decision 1631, scientists considered the restoration of Mill Creek’s vibrant cottonwood-willow forest a valuable restoration opportunity. However, even though Mono Lake’s decline degraded Mill Creek through incision, the north basin stream was not included in the State Water Board’s restoration order because Los Angeles never diverted water from Mill Creek.

Mill Creek through time

Instead, Mill Creek’s flow is governed by established water rights for diversions within the Mono Basin that serve hydropower, irrigation, and fish-rearing uses. Northwest of Mono Lake, Mill Creek flows 13 miles from high in Lundy Canyon through Lundy Lake Reservoir and the bottomlands, entering Mono Lake west of Black Point. Mill Creek once supported acres of mature cottonwood-willow forest spreading across a wide valley floor interlaced with meandering channels and deep pools—an oasis for birds, mammals, and fish in an otherwise arid landscape. But as a result of a century’s worth of local diversions, Mill Creek is only able to support a narrow corridor of trees along the banks, leaving dead snags and drought-tolerant shrubs where the forest had flourished (see Spring 2010 Newsletter).

Bring back the bottomlands

In light of this situation, Mill Creek represents a significant opportunity for future restoration in the Mono Basin. As suggested by the success at nearby Rush and Lee Vining creeks, Mill Creek also stands ready to flourish once given the chance.

Restoration can be measured in many different ways—from the distribution and sinuosity of side channels, to the amount of large woody debris present in the creek, to maximum trout size, the density of mature trees, diversity of bird species, depth to groundwater table, the list goes on. All of these indicators are important signs of a stream moving towards health, but in general, the goal of restoration in the Mono Basin is to reinstate natural processes in order to re-establish natural conditions. This focus enables the stream to regain resiliency and self-sustaining processes like the slow but constant movement of stream channels across a floodplain.

Early signs of recovery

Despite the decades of dewatering and incision, in recent years Mill Creek has generally received just enough water to prevent it from running dry before it reaches the lake. This tenuous lifeline has allowed Mill Creek to display the

Continued on page 11
first tentative signs of recovery, beginning with more mature cottonwood and willow trees stabilizing the fragile banks. This upswing in plant growth in turn provides better nesting and foraging habitat for waterfowl and songbirds.

As part of an extensive songbird monitoring program in the Eastern Sierra, PRBO Conservation Science studied the population of birds on Mill Creek from 1998–2005. The researchers conducted point counts to document the species present in a given area at any one time, searched for and monitored nests to document their productivity, and even set up cameras to record nest predators like Brown-headed Cowbirds in action (see Spring 2003 Newsletter).

This baseline research shows that of the Mono Basin bottomland streams, Mill Creek has the second highest bird species diversity after Lee Vining Creek, which testifies to the variety and potential of the surviving habitat. The data also indicates that the species richness (or composition) is fairly static, and has not changed drastically since the monitoring began. In addition, territory numbers for riparian associated species like the Yellow Warbler are much lower than on Lee Vining Creek or Rush Creek. This valuable information confirms that Mill Creek is surviving, but not thriving—although it remains ready to respond quickly to a more natural flow pattern.

Poised for recovery

Looking ahead, the recent completion of a settlement agreement for the relicensing of the Lundy Powerhouse, a Committee project for many years (see Spring 2008 Newsletter), opens the door to meaningful restoration for Mill Creek. Facilities improvements will allow water diverted for hydropower to return directly to Mill Creek in keeping with established water rights.

After giving his expert testimony to the State Water Board concerning the pre-diversion condition of Rush Creek, Elden Vestal remarked of its future, “Perhaps it will be like it was.” For Mill Creek, we cannot hope to erase the deep scars of over 100 years of dewatering. What we can do is remove the obstacles to the creek’s natural ability to heal itself. If we give it a fair chance, by re-opening long dry channels, and ensuring it gets the water it needs, Mill Creek is poised to make a remarkable recovery.

As I tromp alongside Mill Creek the sunny March day feels warm, but snow remains two or three feet deep under our snowshoes. During lunch we take a break from shoveling, pounding stakes, trimming lengths of ¾-inch white PVC pipe, and zip-tying unwieldy yards of microfilament netting. Longtime Mono Basin PRBO Conservation Science researcher Sacha Heath fills me in on what all of this vigorous exercise has to do with her Master’s thesis work at Humboldt State University.

In short, her project investigates several interacting layers of the food chain, examining the “contributions of insectivorous birds to riparian plant growth in a restoration setting.” The overarching goal of Heath’s research is to determine to what extent birds influence plant growth, and therefore the progress of restoration, by consuming herbivorous insects.

The simplest way to find out birds’ effects is to compare a setting with birds to a setting without them. However, it is difficult, if not impossible, to control birds’ movements. It’s much easier to identify a similar pair of black cottonwood saplings alike in size, distance from the creek, and other variables, and then build an “exclosure” to prevent birds from accessing one of the saplings. The experiment will compare each control sapling with its excluded neighbor and determine the difference between the two saplings in insect populations, foliage damage, and overall plant growth.

Heath’s work is exciting because it proposes to answer questions about what role birds like Song Sparrows and Yellow Warblers play in riparian forest regeneration. This kind of information is central to the adaptive management restoration approach, which involves learning by doing and then carefully monitoring the results to inform future actions. The more we know about how plants and animals interact in stream environments, the better we can work to restore the natural processes that sustain them.

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Heath’s work is exciting because it proposes to answer questions about what role birds like Song Sparrows and Yellow Warblers play in riparian forest regeneration. This kind of information is central to the adaptive management restoration approach, which involves learning by doing and then carefully monitoring the results to inform future actions. The more we know about how plants and animals interact in stream environments, the better we can work to restore the natural processes that sustain them.

Birds, bugs, and cottonwoods

As I tromp alongside Mill Creek the sunny March day feels warm, but snow remains two or three feet deep under our snowshoes. During lunch we take a break from shoveling, pounding stakes, trimming lengths of ¾-inch white PVC pipe, and zip-tying unwieldy yards of microfilament netting. Longtime Mono Basin PRBO Conservation Science researcher Sacha Heath fills me in on what all of this vigorous exercise has to do with her Master’s thesis work at Humboldt State University.

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2009 runoff 87% of average; 2010 forecast at 98%

by Greg Reis

For the 2009 Runoff Year that ended on March 31, the forecast was for 88% of average runoff. A preliminary tally of actual runoff adds up to 87% of average. Of the 2009 total, 64% was released to Mono Lake, 22% was stored in Grant Lake Reservoir, and 15% was exported to Los Angeles.

Testing of proposed lower winter streamflows that are expected to benefit the fisheries resulted in over 10,000 acre-feet of water being diverted from Lee Vining Creek, and only about 6,000 acre-feet diverted from Rush Creek (in addition, 40% of Rush Creek’s flow was stored in Grant Lake Reservoir). In past years most of DWP’s water exports came from Rush Creek. This shift is also intended to better balance the water removed from each creek.

The test did result in more balanced diversions from each creek. Below the diversion dams, 60% of the Lee Vining Creek and 46% of the Rush Creek average natural flows were released. Had DWP’s diversions followed the requirements in the existing operations plan, 67% would have been released to Lee Vining Creek. If Rush Creek had received a peak flow (which was not delivered due to concerns about the very low reservoir), Rush Creek would have received 71% of its average natural flow.

This past winter, Lee Vining received 114% of average October–March precipitation and 143% of average October–March snowfall. April 1 snow surveys found 106% of average snow water content in the Mono Basin. The April 1 runoff forecast for the April 1, 2010–March 31, 2011 Runoff Year is 98% of average—a “Normal” Year, which is slightly wetter than 2009. The May 1 update probably will be higher because April was quite snowy.

NASA study inspires new questions about Mono Lake’s temperature

by Greg Reis

A NASA study using satellite imaging published in December 2009 reported that Mono Lake’s average nighttime surface water temperatures during July, August, and September warmed from 64°F in 1992 to 68.3°F in 2008. We looked at Mono Lake Committee air temperature records and discovered that July–August average air temperature in Lee Vining warmed 2°F during the period, while September average air temperature had no trend.

It would seem that Mono Lake’s summertime nighttime surface water temperature is rising twice as fast as the average July–August air temperature. But cross-checking that theory with 2000–2006 data from an air temperature station on the east shore of Mono Lake reveals strong cooling of air temperatures in September and no change in air temperatures for July–August.

Data from Dr. Robert Jellison of UC Santa Barbara shows no warming in springtime water temperatures at 2 meters deep during the last 28 years. He says that Mono Lake is generally mixed to over 8 meters deep during summer, and “the upper meter is notoriously sensitive to diurnal wind, solar, and temperature variation.” We compared wind data for the same period and found conflicting trends.

Dr. David Herbst of the Sierra Nevada Aquatic Research Laboratory says that the NASA results “are consistent with elevated summer minimum air temperatures that have previously been documented.” Martis Creek, north of Lake Tahoe, has warmed 2°C Celsius since the mid-1970s (in June, July, August). Nearby Sagehen Creek is groundwater-dominated, and there the summer minimum temperature was unchanged.

Herbst notes that for Mono Lake, one of the implications is faster alkali fly growth, especially when combined with reduced salinity. Another implication, however, is increased evaporation, which could be slowing down Mono Lake’s rise towards the 6392-foot management level.

Without more data from more stations from a longer time period, along with analysis of minimum temperatures, the air temperature connection remains unconfirmed.

On April 1, 2010, Mono Lake stood at an elevation of 6382.0 feet above sea level. The lake level forecast issued a year ago predicted a level only 0.1 foot higher. For 2010, a small rise in Mono Lake is expected—the first rise in four years.

Greg Reis is the Committee’s Information Specialist. He is preparing for a summer trip down the Truckee River from Reno to Pyramid Lake.
In some years, winter in the Mono Basin just melts away into spring and then spring drifts into the warm days of summer. That would be some years. But not most, and not this one.

2010 has followed the more common pattern in which the Mono Basin takes winter, spring, and a taste of summer, and mixes them all up in a jumble.

A few scenes: In leafless trees, Red-winged Blackbirds, newly returned from the south, hunkering down trying to avoid stormfronts with 50 mile-per-hour winds. In front yards, cheery yellow daffodils that shone yesterday in the sun now drooping beneath six inches of snow. Overhead, California Gulls flying to the islands, optimistically establishing nests before the lake warms enough for brine shrimp to hatch. In Lee Vining, visitors in shorts amidst the snow, wondering what became of the warm desert temperatures but a few hours’ drive away.

Winter will finally retreat, and summer days will come—well, mostly. For sure by August; it seldom snows in August. The lesson of it all, perhaps, is this: here at Mono Lake the towering cumulus clouds and warm breezes of summer that enable so many a shoreline exploration are but a pleasant break between the wet spring snows of May and the first windy chills of September. ♦

Geoff McQuilkin is the Committee’s Executive Director. He is developing a new system for evaluating the strength of winter storms that is based on tallying the number of shingles removed from his house per day of wind and weather.
**Activities**

There is a lot to do in the Mono Basin! Stop by the Mono Lake Committee Information Center & Bookstore when you’re in town and our knowledgeable staff can help you plan your visit.

- **South Tufa tours** are an excellent introduction to Mono Lake. Join a naturalist on a walking tour at the South Tufa Area to learn about the ecology, geology, and natural and human history of the Mono Basin. The walk is approximately one mile long on easy terrain and lasts about an hour. Meet at the South Tufa parking lot at 10:00AM, 1:00PM, and 6:00PM daily during the summer months. There is no charge for the walk, but a $3 per person fee is required to enter the South Tufa Area. No reservations are necessary.

- **Canoe tours** depart Saturday and Sunday mornings in summer at 8:00, 9:30, and 11:00AM, and last for about one hour. $22 per person. Reservations are required; call (760) 647-6595.

- **Bird walks** take place Fridays and Sundays at 8:00AM throughout the summer. Meet at the Mono Lake County Park with binoculars and a bird book (not required). Tours last 1 1/2–2 hours and are open to all levels of birders. Committee staff can also suggest good birding areas around the Mono Basin.

- **The Mono Lake National Forest Scenic Area Visitor Center**, located just north of town, features an expansive view of Mono Lake, interpretive displays, and natural history trails. A dramatic film on Mono Lake shows regularly in the theater, and during the summer rangers give patio presentations daily. Open Sundays–Thursdays from 8:00AM to 5:00PM and Fridays–Saturdays from 8:00AM to 7:00PM; contact the Visitor Center at (760) 647-3044 for more information on extended hours and program offerings.

- **The Mono Lake Historical Society Museum**, located in Lee Vining at Gus Hess Park, houses a fascinating collection of materials from the Mono Basin’s past. See Native American artifacts, gold mining implements, and even the legendary upside-down house. Open Thursdays–Mondays from 10:00AM to 5:00PM and Sundays 12:00 to 5:00PM. There is a $1 charge but children under the age of 13 are free. Contact the museum at (760) 647-6461 for more information.

**Visitor Centers**

- **The Mono Lake Committee Information Center & Bookstore**, located in the heart of Lee Vining, offers a free video, educational exhibits, a fine art exhibit, and activity schedules. The bookstore offers an excellent selection of regional books, maps, T-shirts, local crafts, and environmentally minded gifts. The Committee also houses the Lee Vining Chamber of Commerce with information on lodging, dining, and recreation opportunities as well as weather and road conditions. The Mono Lake Committee is open from 8:00AM–9:00PM daily during the summer, or call (760) 647-6595 for more information.

**Regional travel resources**

- Mono Lake Committee Information Center (760) 647-6595 monolake.org
- Lee Vining Chamber of Commerce (760) 647-6629 leevingining.com
- US Forest Service Scenic Area Visitor Center (760) 647-3044 fs.fed.us/r5/inyo/about
- Mono Lake Tufa State Reserve (760) 647-6331 parks.ca.gov
- Bodie State Historic Park (760) 647-6445 parks.ca.gov
- Mammoth Lakes Visitor Center (760) 924-5500 visitmammoth.com
- June Lake Chamber of Commerce (760) 648-7584 junelakechamber.org
- Bridgeport Chamber of Commerce (760) 932-7500 bridgeportcalifornia.com
- Devils Postpile (760) 934-2289 nps.gov/depo
- Inyo National Forest 24-hour Wilderness Permits/Info (760) 873-2408 fs.fed.us/r5/inyo
- Yosemite National Park nps.gov/yose
- Information by phone (209) 372-0200
  - Campground Reservations (800) 436-7275
  - Hotel and Motel Reservations (801) 559-5000
  - Wilderness Permit Reservations (209) 372-0740
- White Mountain Ranger District–Bishop (760) 873-2500
- Lone Pine Interagency Visitor Center (760) 876-6222
- Manzanar National Historic Site and Interpretive Center (760) 878-2932 nps.gov/manz
- Death Valley Reservations (760) 786-2345
- Bridgeport Ranger Station–Toiyabe National Forest (760) 932-7070
- California Road Conditions (800) 427-7623 dot.ca.gov
The Mono Lake story

Nestled at the edge of the arid Great Basin and the snowy Sierra Nevada mountains, Mono Lake is an ancient saline lake that covers over 70 square miles and supports a unique and 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 lush riparian forests of cottonwood and willow along their banks. Along the lakeshore, scenic limestone formations known as tufa towers rise from the water’s surface. Millions of migratory birds visit the lake each year.

A story of hope

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 by David and Sally Gaines in 1978 in response to the threat of inevitable collapse of the Mono Basin ecosystem. The early Committee bought an old dance hall in Lee Vining to use as headquarters (which still houses the Information Center today), and went to work spreading the word about Mono Lake. The Committee took the City of Los Angeles to court in 1979, arguing that DWP had violated the Public Trust Doctrine, which states: “The public trust … is an affirmation of the duty of the state to protect the people’s common heritage of streams, lakes, marshlands and tidelands…. ”—Supreme Court of California, 1983

During the winter of 1988, David Gaines was killed in a car accident in a snowstorm. He never got to see the lake he loved begin to rise, but his inspiration is carried on through the work of the Mono Lake Committee.

Mono Lake’s recovery depends upon water conservation in Los Angeles, and the Committee has created solutions to the demand for water by implementing conservation programs in LA that have saved more than enough water to share with Mono Lake. Over the last 15 years, LA has become 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.

In 1994, after over a decade of litigation, the California Water Resources Control Board ordered DWP to let Mono Lake rise to a healthy level of 6392 feet above sea level—twenty feet above its historic low. DWP has reduced its Mono Basin water exports by over 80 percent, and Mono Lake is on the rise. This is truly an environmental victory. See below for more on what the Committee is doing today.

16,000 members

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.

Check out Mono Lake on the web at monolake.org for action alerts, letter-writing campaigns, WebCam images of the area, and fun activities happening year-round. By staying connected to Mono Lake, you ensure its protection for generations to come. 

What is the Committee doing today?

Protecting Mono Lake. The Committee serves as a voice for Mono Lake in the face of land development threats and recreation pressures. Working with agencies like DWP, California State Parks, and the US Forest Service, the Committee is successfully balancing the water needs of both humans and natural ecosystems.

Restoring Mono Lake. Restoration work at Mono Lake focuses on re-establishing natural processes along damaged streams. As water flows down the creeks and into the lake, vegetation and wildlife return and the lake rises, helping to bring back a healthy ecosystem.

Educating the next generation. Each year the Committee partners with Los Angeles community and school groups, bringing inner-city youth to the Mono Basin to learn about the source of their water. For kids who may have never left LA, these are life-changing trips filled with hiking, canoeing, helping with restoration work, and learning about the connections between natural and urban landscapes.

Find news, updates, and lots of great information at monolake.org.
Walk the new Lake Trail

by Rosanne Wilson

The much-anticipated Lake Trail is now complete, connecting the Forest Service Visitor Center to the shore of Mono Lake. Walking from the Visitor Center, the trail is 1.2 miles long and drops approximately 250 vertical feet, offering incredible views of the lake the entire way. Toward the bottom you’ll find the locally-famous Icebox Tufa, where ranchers once stored their perishable goods.

From Icebox Tufa, you can take the boardwalk right to Mono Lake’s shore, for close-up views of gulls, alkali flies, and brine shrimp. Along the way there are interpretive signs about Kutzadika’ Native American traditions, ranching in the Mono Basin, migratory birds, and more. The trail is 2.4 miles round-trip, and depending on your hiking speed, takes approximately 1½–2 hours to complete the loop.

The new Lake Trail is great for several reasons. First, it takes you through a wide variety of habitats—from sagebrush scrub with piñon pines, to wetlands and alkali meadow habitat with wildflowers, and finally to the briny mudflats of the lakeshore itself. Second, the lower portion of the trail—from the Old Marina lakeshore parking lot to Icebox Tufa (¼ of a mile)—is completely wheelchair accessible and has informative interpretive panels. Finally, it’s an easy way to walk from town down to Mono Lake.

Rosanne is the Committee’s Information Center & Bookstore Manager. Her favorite summer place is Lundy Canyon, where she explores the minutiae of lichens, insects, mosses, and flowers.

How to enjoy the Lake Trail

Start at the Forest Service Visitor Center and walk down to the shore and back up the hill, or go to the Old Marina just 1 mile north of town and walk up to the Visitor Center and back down. The trail is 2.4 miles round trip and has a 250-foot elevation change, so know your fitness level, carry adequate water, and wear sturdy shoes and sun protection.

The Mono Lake Committee Information Center & Bookstore is online at monolake.org/store

books • local artisan crafts
Mono Lake Committee apparel
gifts • kids’ toys

all proceeds support the work of the Mono Lake Committee on behalf of Mono Lake
Some locals suspected it was just a matter of time. In January 2010 clear signs of *Castor canadensis* appeared along Lee Vining Creek, just below the Lee Vining Creek diversion dam. Commonly called American or North American beavers, these animals are not native to the Mono Basin. Beavers have been living in Lundy Canyon for many decades, though we don’t know for certain when they first appeared or how. The number of beaver dams, lodges, trails, and felled aspen has been on the increase in recent years, and the expanding Lundy Canyon population is likely spreading to neighboring Lee Vining Creek.

In the 1940s both the Division of Fish & Game (present-day California Department of Fish & Game) and the US Forest Service initiated beaver plantings in non-agricultural areas of California to produce a fur crop, provide water storage and erosion control, and to produce “aesthetic values that may be derived from the presence of properly located beaver colonies.” According to Arthur L. Hensley in his 1946 “Progress Report on Beaver Management in California,” (*California Fish & Game*, Vol. 32, No. 2: 87-99), beavers were introduced to the former Mono National Forest in the East Walker River drainage in one of the canyons upstream of Bridgeport Reservoir. Five beavers, including at least one male and one female, were introduced in August 1941. Beaver plantings continued in California through 1949, and it’s possible that an introduction occurred directly in Lundy Canyon.

Beavers did not live in Lee Vining Creek in the years before water diversions. Like humans, beavers can significantly alter their surrounding habitat. Human-built dams already exist in the Lee Vining Creek watershed. If beavers thrive here, what impact will their dams have on ours? What changes might they bring to the riparian habitat of Lee Vining Canyon? One beaver in Lee Vining Canyon may not present any issues, but one male and one female might create future management challenges for lower Lee Vining Creek where efforts are focused on restoring pre-diversion stream values.

Bartshé Miller is the Committee’s Education Director. He is really curious about how a beaver got all the way to Lee Vining Canyon.

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**Mono Basin history comes to life**

In 1940 the Los Angeles Department of Water & Power completed an 11-mile tunnel through the Mono Craters and constructed the Grant Lake dam in preparation for water diversions from the Mono Basin to begin. Hear tales from local historians and experts as this colorful time comes to life in this tour presented by the Mono Basin Historical Society.
Photography at
Burger’s Sierra Retreat
June 25–27
Elizabeth Kenneday-Corathers
$355 per person / $340 for members
This brand-new field seminar will explore photography of the beautiful aspen groves and alpine landscapes above Mono Lake. Practical topics include landscape representation, macrophotography, painting with light, night photography, time studies, and philosophical/ethical issues in photographing the natural environment. Accommodations will be provided at the rustic and comfortable Burger’s Sierra Retreat above Lee Vining, with all meals catered by Linda Dore Food Service. Photographers of all skill levels using either film or digital cameras are welcome. Elizabeth Kenneday-Corathers is an accomplished local photographer who is currently working on a photography book of the Mono Basin.

The Art of Wildflower
Macrophotography
July 9–11
David Gubernick
$250 per person / $225 for members
limited to 8 participants
Learn to take creative and beautiful close-up images, further develop your artistic vision, and enhance your photographic skills in the supportive learning environment of this workshop for beginning to advanced amateur photographers. The weekend will emphasize the artistry of macrophotography and the technical means to render such images; this is not a course in botanical identification. David J. Gubernick, Ph.D., is an internationally and nationally published and award-winning nature photographer and workshop leader. His first photography book, Wildflowers of Monterey County, has been a best-seller, garnering rave reviews.
Capturing the Trees & Skies of Mono Lake on Paper
July 30–August 1
Ane Carla Rovetta
$160 per person / $145 for members
limited to 12 participants

The fragrant forests and radiant skies of the Mono Basin are pure inspiration. During this weekend of sketching we will concentrate on the unique shapes of clouds and trees in the vast landscape, recording impressions on toned paper using handmade charcoal provided by the instructor. After exploring the “gestalt” of our subjects, participants will render their final pieces in the medium of their choice. Everyone will go home with at least one finished painting and several drawings that can be expanded upon later. These fun investigations are geared towards artists of all levels and are a perfect follow-up for graduates of Ane Carla’s landscape pastel weekends.

Introduction to High Country Plants & Habitats
August 6–8
Ann Howald
$150 per person / $135 for members

This class will explore the mosaic of habitats found in the Eastern Sierra high country—flower-filled meadows fed by meandering streams, sagebrush-covered slopes, lodgepole pine forests, subalpine lakes bordered by willows, and flowery rock gardens. Sight identification of common trees, shrubs, and wildflowers will be emphasized, as well as the many ways that plants, birds, insects, and other wildlife interact in high country habitats. Ann Howald is a consulting botanist and volunteer for the California Native Plant Society. She has taught popular Committee field seminars for over ten years.

Los Angeles Aqueduct Tour
July 24
Greg Reis
$90 per person / $80 for members

The Mono Basin extension of the Los Angeles Aqueduct began transporting water 350 miles south to the City of LA in 1941. Visit all the major aqueduct facilities in the Mono Basin and learn about the aqueduct’s effects on Mono Lake, its tributary streams, the Upper Owens River, and land management in the area. The group will discuss the history of water diversions, the effort to save Mono Lake, and the future of habitat restoration. Greg Reis is the Committee’s Information Specialist and the perfect guide for unraveling the Mono Basin’s complex and fascinating plumbing—he has 15 years of experience in Mono Basin hydrology and restoration and he keeps close track of Mono Basin water management.

“Afternoon Sun on Gilcrest Peak,” pastel painting by Ane Carla Rovetta.

Arrowleaf balsamroot blooms in a beautiful display each spring.
Fly Fishing in the Mono Basin
August 13–15
Pete Pumphrey & Roberta Lagomarsini
$165 per person / $150 for members
This introductory fly fishing seminar will cover equipment options, varieties of flies and their uses, trout and their habits, basic casting technique, stream strategies, and landing and releasing fish. The class will include casting instruction at the Conway Ranch fish-rearing facility and will move to a streamside location for considering trout habitat and habits, characteristics of a healthy stream environment, reading the water, fly presentation, and catch and release. A limited amount of equipment is available for those who are not already engaged in the sport. Pete Pumphrey and Roberta Lagomarsini are guides licensed by the State of California and have been teaching fly fishing for over ten years.

Miwok-Paiute Basketry
August 27–29
Lucy Parker & Julia Parker
$185 per person / $170 for members
$80 materials fee
primitive group campsite included (no pets, please)
During this seminar, participants will prepare materials and create a Miwok-Paiute burden basket—used for gathering pinenuts, acorns, and berries. This seminar is designed for weavers of all levels. Participants are encouraged (but not required) to camp with the group, and evenings will be spent around the campfire with traditional songs and stories. Lucy Parker is a descendent of the Yosemite Miwok, Mono Lake Kutzadika’a, and Kayasha Pomo peoples. She learned traditional handiwork from her mother Julia, a master basket weaver. Julia Parker has dedicated her life to learning and teaching basketry and is the only weaver still practicing who was taught by women who wove in the early 20th century.

Birding the East Side
August 27–29
David Lukas
$150 per person / $135 for members
This field seminar will concentrate on the identification and ecology of birds in the Mono Basin and the local Eastern Sierra. The class will visit a wide variety of habitats including desert scrub, marsh, riparian forest, and mountain slopes in search of breeding birds and migrants. With over 300 species having been observed in the Mono Basin, this course will be of great interest to both beginning and more advanced birdwatchers. David Lukas has led over two hundred birdwatching and natural history programs for the Nature Conservancy, Yosemite Association, Audubon Society, Elderhostel, and other groups. He is the author of Watchable Birds of the Great Basin, Wild Birds of California, and the recently revised Sierra Nevada Natural History.

Identifying High Country Wildflowers
August 20–22
Mark Bagley
$150 per person / $135 for members
At the headwaters of Lee Vining Creek amidst a rich summer display of wildflowers, shrubs, and trees, this class will identify a great diversity of plants using Norman Weeden’s A Sierra Nevada Flora. This seminar will start with a lecture and hands-on session to introduce the basics of plant identification for beginners. The group will then move to the field for easily-paced short walks at high elevations with much more time stopping and keying out plants than walking. This seminar is suitable for beginners or those with some experience with keying. Mark Bagley is a consulting botanist in the Eastern Sierra and Mojave Desert who has been leading field seminars in the Mono Basin since 1988. He is well known among past seminar participants for his easy-going pace and engaging teaching style in the field.

The Mono Basin offers many opportunities for excellent fly fishing.

Violet-green Swallows grace Mono Lake’s shores in the warm months.

monolake.org/seminars or (760) 647-6595 to register
Living on the Edge: Sierra Nevada Bighorn Sheep in the Mono Basin
September 11–12
John Wehausen
$165 per person / $150 for members

The US Fish & Wildlife Service listed the Sierra Nevada bighorn sheep as Federally Endangered in 2000. This field seminar will involve discussions of the fascinating biology of bighorn sheep, their relationship with other mammals (including mountain lions and humans), and their conservation in the field. Past participants saw bighorn 11 out of the last 12 years—while there is a very good chance of seeing bighorn sheep in the wild during this seminar, there is no guarantee. John Wehausen is a research scientist at the White Mountain Research Station in Bishop who has been studying the Sierra Nevada bighorn and working for their conservation since 1974. Please be aware that this seminar involves very strenuous hiking at the 10,000-foot elevation and above.

Visions of the Past:
Bodie, Masonic, Aurora
September 18–19
Terri Geissinger
$140 per person / $125 for members

In the Bodie Hills, all within 20 miles of each other, lie three ghost towns full of stories of pioneer families, prospectors, muleskinners, heroes, and gunslingers. This guided tour will visit the town and the cemetery of Bodie, once the second largest city in California. Next, visit the rock cabins and foundations of Masonic, where 500 people resided in a beautiful canyon—mining gold with great hope and eventually producing considerable wealth. The last stop is Aurora, once a bustling town of 8,000 souls in the 1860s. Your leader Terri Geissinger is a Bodie State Historic Park interpreter and guide. She is active in the Mono Basin Historical Society, and has a talent for making history come alive.

Fall Bird Migration
September 18–19
Dave Shuford
$140 per person / $125 for members

The east slope of the Sierra Nevada is a major migration route for birds traveling from northern nesting areas to warm southern habitats. As a result, autumn is the time of year to see the greatest diversity of landbirds, shorebirds, and waterbirds in the Mono Basin and on Crowley Lake Reservoir. Dave Shuford has been a staff biologist at PRBO Conservation Science for 30 years. He has conducted numerous surveys and research projects in the Mono Basin and beyond and is well acquainted with where to find birds in the Eastern Sierra. This is one of our most popular field seminars, so register early!

Mono Basin & Bodie Fall Photography
September 24–26
Richard Knepp
$300 per person / $285 for members

Autumn in the Mono Basin is one of the greatest photographic experiences in the country. Spectacular foliage and skies combine with exceptional light, presenting ample subject matter for photographers in both color and black-and-white. And, for the seventh year, the class will spend Saturday at Bodie, inside some of the buildings—a very special treat! Join accomplished photographer Richard Knepp to explore varied

monolake.org/seminars or (760) 647-6595 to register

Two elusive bighorn sheep spotted in Lundy Canyon.

California Gulls wheel over Mono Lake all summer long.
shoreline locations at sunrise and sunset, fall color in nearby canyons, and the ghost town of Bodie. Photographers of all levels are welcome; a fully adjustable camera of any size or format is suggested. This is the 16th year in a row of this popular seminar.

**Arborglyphs & Aspen Natural History**

**October 9–10**

Richard Potashin & Nancy Hadlock  
$140 per person / $125 for members

A century of sheep grazing brought Basque sheepherders into the Mono Basin’s aspen-bordered meadows, and they left numerous carvings—or arborglyphs—on the aspens. Join the instructors for an enchanting journey into the aspen groves to explore this historic art form and to learn about the numerous wildlife, insects, and birds that are drawn to the groves. During leisurely walks the instructors will discuss the history of sheep grazing in the Mono Basin, Basque culture, the cultural significance of the carvings, and efforts to document them. Richard Potashin is a longtime Eastern Sierra resident who has been discovering and documenting aspen carvings for many years. He is currently a Park Ranger at Manzanar National Historic Site with his wife, Nancy Hadlock, who has been a passionate student of Basque culture for over 20 years.

**Basque sheepherders carved arborglyphs in nearly all of the Mono Basin’s aspen groves.**

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**Field Seminar Registration Information**

To register for a field seminar, please call the Mono Lake Committee at (760) 647-6595 and ask for the seminar desk, or register online at monolake.org/seminars.

More extensive seminar descriptions are available online at monolake.org/seminars.

We accept VISA, MasterCard, and Discover only. We cannot accept personal checks or registration by mail or email. Seminars are limited to fifteen participants except where noted. If a seminar receives less than six participants (with some exceptions) the seminar will be cancelled two weeks in advance, and full refunds will be issued. If you cancel three weeks prior to the seminar start date, we will refund your payment (less a $15 processing fee). No refunds can be issued for any reason if cancellation is within three weeks of the field seminar date, but tuition can be applied to another seminar in 2010.

Participants must sign a liability release form. All seminars operate under permits from the Inyo National Forest and California State Park system.

The Mono Lake Committee works with instructors and field leaders who have received high ratings from past seminar participants. We emphasize a spirit of learning and camaraderie in this magnificent outdoor setting for a reasonable cost. Proceeds from Mono Lake Committee Field Seminars benefit research and education in the Mono Basin.

Mono Lake Committee Field Seminars are open to everyone, but Mono Lake Committee members get advance notice and class discounts. If you are not a current member of the Mono Lake Committee, you may receive the discount by joining when you register.
stream scientists are reviewing the comments and will respond to the parties, make appropriate adjustments, and finalize the report by April 29, 2010.

Once the report is finalized, DWP will evaluate the feasibility of operating its aqueduct system to reliably deliver the recommended flows and report to the State Water Board. DWP will also develop and propose a revised plan for operations and monitoring, which will detail every aspect of the new operation. The Committee expects to have significant comments on both the feasibility analysis and the proposed operations plan. Restoration of the streams is mandated, and we’ll be looking to see DWP’s operational solutions—not a operations plan. The Committee expects to have significant comments on both the feasibility analysis and the proposed operations plan. Restoration of the streams is mandated, and we’ll be looking to see DWP’s operational solutions—not a list of reasons why flows can’t be achieved.

After all of that is resolved, the State Water Board will then outline a process that will chart the course for issuing a new streamflow order that will ultimately replace Order 98-05. It will include the new flow regimes and required monitoring in addition to any other associated requirements. This part of the process is the most unclear. Depending on how it proceeds up to this point, there could be a period of time when flows are tested under a temporary flow variance, which would allow for further monitoring and evaluation.

How we got here

By 1941, the City of Los Angeles had extended its aqueduct from Owens Valley north and was diverting Mono Lake’s tributary streams for municipal water use. As a result, the streams were completely dry except during very wet years when DWP’s aqueduct capacity was full and couldn’t take any more water. The combination of no flow for long periods and then the occasional high spring runoff floods destroyed the streams—killing streamside vegetation, straightening channels, plugging side channels, and eliminating fish and other aquatic life.

Continued on page 25

Mono’s stream restoration experts

Always there when we need them—thank you!

The Mono Lake story has an extensive and dedicated cast of characters. We called on them once again to help us analyze the draft synthesis report and shape the Committee’s comments. One needs only to flip open Storm over Mono (out of print, but soon to be re-released) and you’ll find these names and faces in the pages.

Richard Ridenhour, PhD, Professor Emeritus, Fisheries Department at Humboldt State. Ridenhour was one of the original “Three Amigos” (with Bill Trush and Chris Hunter) who began working on the streams during the court-ordered interim restoration phase before the State Water Board orders were finalized.

Bruce Dodge, attorney for the Mono Lake Committee. Dodge has been with us through every single lawsuit—doggedly persistent, terse in language, and steadfast in principle.

Richard Roos-Collins, attorney for California Trout. Roos-Collins began working at Mono Lake in 1991 with a focus on and passion for the pre-1941 conditions. He was instrumental in establishing termination criteria and ensuring they were included in the final State Water Board orders.

Scott Stine, PhD, Professor of Geography and Environmental Studies, California State University, East Bay. Stine has been working on the long-term history of Mono Lake and its streams since 1979. He was the expert witness for the California State Attorney General’s Office in the Mono Lake trial before the El Dorado County Superior Court, and in the Mono Lake hearings before the State Water Board. Between 1992 and 1995 Stine authored 11 reports to the State Water Board on the Mono Basin’s pre-1941 history, and on the restoration of Mono Basin streams and wetlands.

Peter Vorster, Mono Lake Committee consulting hydrologist. Vorster has been providing expert guidance on hydrology, operations, and water management since 1979. He prepared numerous expert reports and testimony for the Committee, State Water Board, and restoration planning team and developed the most complete and accurate Mono Basin water balance and lake level forecast model.

Duncan Patten, PhD, Research Professor at Montana State University Department of Land Resources and Environmental Sciences. Patten chaired the National Academy of Sciences committee looking at the decline in Mono Lake levels (“The Mono Basin Ecosystem: Effects of Changing Lake Level,” National Academy Press, 1987) and co-authored several early-1990s papers on streamflow needs of Mono Basin riparian vegetation.

Eric Larsen, PhD, Associate Research Scientist at the UC Davis Department of Environmental Design. Larsen was a consultant on multiple 1980–1990s studies on Mono Basin streams.
In 1994, after a series of lengthy court battles, the State Water Board issued Decision 1631 (D1631)—the precedent-setting mandate that balanced the water needs of Mono Lake and the streams with those of a thirsty city to the south. Restoration Orders 98-05 and 98-07 followed in 1998. It is the combination of D1631, 98-05, and 98-07 that have charted the course for restoration ever since (see Spring 2007 Newsletter).

All parties agreed to two main restoration principles early on in the process of working together:

1. to avoid mechanical manipulation whenever possible by restoring and reinstating natural ecosystem processes
2. to use an adaptive management approach

Adaptive management is an approach used to address uncertainty by viewing actions as experiments derived from hypotheses, conducting extensive monitoring, evaluating the results, and then determining if the assumptions and current management need to be changed. It is the application of these two principles that puts the restoration of Mono Basin streams at the forefront of the art and science of stream restoration.

Almost all restoration programs have monitoring and some may adhere to an adaptive management strategy. What’s cutting-edge at Mono Lake is to have all those components so clearly laid out for the scientists, for DWP, and for the parties interpreting the directives and applying the approach over such a long period of time.

We’re all in this together

This is an exciting time for the Committee and we know these efforts are the core of our work for Mono Lake. The legacy of restoration at Mono Lake is rich and deep, and the work on this report is an important milestone. New experts, old experts, now even the sons of experts (Robert Vestal, son of Elden Vestal, the Department of Fish & Game biologist on Rush Creek in the 1940s, who became a key witness for Mono Lake) are all contributing in so many valuable ways.

The Committee has long known that the restoration work being done at Mono Lake is special. Stream restoration began as a budding academic discipline—a loose compilation of geomorphology, plant ecology, fisheries sciences, and such. But the challenge of putting these all together into a comprehensive package that is as dynamic as the natural world and that works as flawlessly—that is the true challenge of stream restoration. And at Mono Lake we’re doing just that, or getting as close as we humanly can.

For current updates check out monolake.org/streamflows and if you have questions please contact Lisa (lisa@monolake.org) at (760) 647-6595.

Lisa Cutting is the Committee’s Eastern Sierra Policy Director. For her, working on restoration at Mono Lake is literally a dream come true. First inspired by her university restoration ecology class, she now has ten years of adaptive management under her belt.
Staff migrations

by Erika Obedzinski

This spring, we had some migrations within the office. Duncan King has left his year-round role as Information Center & Bookstore Manager, but we’re pleased that he’s only stepped out the front door to the shores of Mono Lake. He will be helping out with canoe and walking tours this summer as Interpretive Tour Associate, as well as having time for writing and other personal projects. Duncan kept the Bookstore humming and the office full of good cheer as well as spirited debate about whether the game is, exactly, “football” or “soccer;” we’re glad he’s still on the Mono Lake team.

To take over the reins in the store, we’re glad to welcome Rosanne Wilson to our year-round staff team. Rose’s previous experience as a Mono Lake Committee Intern, Information Center & Bookstore Assistant, and Project Specialist, along with her love of retail, working with people, and the Committee’s mission give her an excellent start for her new role as Information Center & Bookstore Manager.

A big welcome goes to our seasonal staff, who do so much to further the goals of the Mono Lake Committee throughout the summer months.

Information Center & Bookstore Assistant Jessica Horn arrives from Boulder, CO where she worked at The Spot Climbing Gym and enjoyed many outdoor activities that the sunshine and fresh air of Colorado have to offer. Also joining the store team as Information Center & Bookstore Assistant is local resident Russ Reese. Russ’ knowledge of the area from many years exploring it firsthand, as well as his love of local history, make him a great resource for summer visitors.

Working with the Outdoor Experiences program as Outdoor Education Lead Instructor is Michael Claussen. Michael has many years of experience working with kids in the outdoors. He most recently returns to the US from the high desert of Spain where he managed the Semilla Besada Research Farm.

Former Intern Rosa Brey returns for a second summer to be an Outdoor Education Instructor—after spending a winter in rainy Seattle, Rosa is excited to be back in the sunny Mono Basin.

Project Specialist Morgan Lindsay has been keeping busy at the Mono Lake Committee all winter and spring with preparations for the annual Bird Chautauqua and many policy projects. She’s looking forward to getting back out on the lake in her role as Canoe Coordinator and we know she’s going to make many visitors happy this summer guiding them on their tours of Mono Lake by boat.

Nick Neely, with his love of writing, birds, and Mono Lake, returns to the Mono Basin for another summer as Birding Intern. Nick arrives most recently from working as an editorial intern at High Country News after receiving his Master’s in Literature and the Environment from the University of Nevada Reno last year.

Concord, MA native Sarah Bird studied Public Policy and American Institutions at Brown University. More recently she has focused on landscape painting—and the Mono Basin will be a perfect inspiration to further her art. We’re glad she’ll be at Mono Lake for a summer as Mono Lake Intern.

Claudia Corona first explored the Mono Basin as an Outdoor Experiences Program participant. We’re pleased she’s returning during her summer break from Williams College in Massachusetts to share her enthusiasm for this place in the role as an Intern.

We welcome Davis native Sarah Melcher to the seasonal staff team as an Intern. Sarah is currently a sophomore at St. Olaf College where she is majoring in Spanish and Sociology & Anthropology.

Former Outdoor Education Instructor Logan Parsons returns to the Mono Basin for a second summer to be an Intern. Logan just can’t stay away from Mono Lake and we hope to put her skills as a scientific illustrator to work this summer.

Erika Obedzinski is the Committee’s Office Director. A highlight of her spring was seeing a flock of two dozen Mountain Bluebirds along the southern shore of Mono Lake.
In Memory

Thank you to all of you who sent in contributions in memory of friends and loved ones. We appreciate these gifts that help us carry on the work that will keep Mono Lake a special place for many generations.


OE wish list

The Outdoor Experiences program brings inner city youth from Los Angeles to the source of their water for hands-on education programs in the Mono Basin. Many participants have never hiked to a mountaintop, canoed on a lake, or played in the snow, and fewer have the gear to participate in these activities. We keep a closet of loaner gear, and could use the following items to help keep kids warm and dry on their adventures:

• warm coats for kids and adults
• hats and gloves
• hiking boots
• rain pants and jackets
• field guides for the Sierra Nevada and Eastern Sierra

Contact Outdoor Experiences Manager Santiago Escrueria (santiago@monolake.org) at (760) 647-6595 for more information or if you have items to donate to the program.

Ellen King is the Committee’s Membership Coordinator. She enjoyed springtime flowers in Death Valley.

Storefront planning update

by Erika Obedzinski

Ever wonder what Committee staff do in the winter and spring? There’s never a shortage of projects, and having a few months that are much quieter in terms of visitation offers an opportunity to do some focused brainstorming and planning for the coming year and beyond.

One of the projects we put our collective attention to this year is remodeling the front of the bookstore. During the winter, staff spent time brainstorming what we’d like to see happen out front. We developed a long wish list and then distilled that list down as much as possible into essential and priority items. We are now in the process of working with an architect to create a master plan in order to implement these ideas on the ground.

Thanks to all of you who have called, emailed, or otherwise sent your ideas and input our way. We’re glad to have those thoughts in the mix and are always thankful for our creative and dedicated members. We’ll keep you updated as we move forward with this exciting project that will make our favorite Information Center & Bookstore an even more welcoming place to stop along Highway 395.
Clip into your pedals for the....

**Reunion Ride**
*August 25–29, 2010*

Lace up your running shoes for the....

**Tioga Pass Run**
*September 12, 2010*

sign up at
birdchautauqua.org

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**Mono Basin Bird Chautauqua**
*June 18–20, 2010*

**Trail Chia Fashion Show**
*July 24, 2010*

at the
Lee Vining Community Center Runway

A fundraiser featuring fun, functional, funky, and funny fashions for the outdoor enthusiast. All proceeds support transportation costs for Outdoor Experiences groups. Contact Arya (arya@monolake.org) at (760) 647-6595 for details.