



ARYA DEGENHARDT

# Education for the Next 25 Years

*Connecting the Next Generation to Mono Lake*

*By Bartshé Miller*

**E**ducation played a strong role in gaining protection for Mono Lake, and it will be essential to the conservation of Mono Lake in the future.

The world of California water presents an intricate maze of plumbing, challenges, and competing uses that express and shape a slowly evolving Public Trust. Education gives us the map to find our way through it. It is the vehicle through which we spread scientific knowledge, evaluate solutions, and communicate values we believe will benefit tomorrow's water users and decision makers. Education presents us the opportunity to better navigate the future, and it's an investment we can ill-afford to ignore.

## **Education in Focus**

Over the last 25 years the Mono Lake Committee has developed a sophisticated education effort that includes interpretive programs and exhibits, canoe tours, field semi-

nars, environmental education programs, a residential education program, special events, a quarterly newsletter, field guides, and five different websites. Education programs at Mono Lake reach a very diverse audience. In the last year, for example, we discussed conservation efforts with Russian exchange students from the Tahoe-Baikal Institute, led a South Tufa walk for the Schnell School of Placerville, and guided a group of students from Roosevelt High School in Los Angeles to the top of a local volcano. We canoed on Mono Lake with 3rd and 4th grade students from Lee Vining, and visited a local diversion dam to discuss western water issues with high school students from Minneapolis. We led a South Tufa program for a group of retired French and German tourists, and we brought youth from the Los Angeles Conservation Corps to observe bird banding on Lee Vining Creek. We co-

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*The future of Mono Lake is tied to Los Angeles; Mono Lake Committee education programs connect Los Angelenos to the lake.*

organized the 2nd Annual Mono Basin Bird Chautauqua, and assisted students from all over the country in finding information for school reports and graduate studies.

Each year the Mono Lake Committee leads programs in the field for over 3,000 students and adults. We make contact with over 100,000 people in Lee Vining through our Information Center and Bookstore. The Mono Lake website and the Mono Basin Clearinghouse receive 1,400 visitors a day combined. Drawing on a network of scientists, educators, talented local residents, and a growing research library, we have slowly built a successful education program that serves a very wide audience.

### **The Los Angeles Connection**

The Outdoor Experiences program (OE), one component of the Mono Lake Committee's broader education program, is now in its 11th of year bringing Los Angeles youth to Mono Lake. This unique program partners the Mono Lake Committee with the Los Angeles Department of Water and Power and Los Angeles area community and school groups to provide a great educational experience for youth from underserved areas of the city.

The kids that participate in OE rarely if ever have the chance to experience pure mountain streams, snow covered peaks, or dark skies with bright stars. OE has become successful because it emphasizes the value of water for people *and* the environment. It highlights powerful learning experiences that connect students with their land and their water, and it engages the true cultural diversity of Los Angeles and California—a constituency that is not widely represented among typical visitors to Mono Lake.

Sadly, the program has no more room to grow. The current site can serve no more than two dozen students, teachers, or adult leaders during a three to five day trip. In 1996, five groups from Los Angeles participated in Outdoor Experiences. In 2003 there were 18 groups, nearly all from Southern California, maximizing use of the existing Mono Basin Cain Ranch facilities.

### **Challenges and Complexities**

In January 2004 a group of 21 Wilson High School students from Los Angeles visited Mono Lake for the first time. None of them had studied Mono Lake before, and they were unaware that some of their city's water was diverted from Mono's tributary streams. When the California State Water Resources Control Board issued order D1631, effectively concluding 16 years of prior controversy and legal struggle over the fate of Mono Lake and water use in Los Angeles, most of these students were just six or seven years of age. In 2014 when D1631 is revisited, these students will be leading professional lives. Some of them or their approximately 2,200,000 California high school peers will be working in the water industry or government, and they will be making decisions about water.

There is a real need for better water education in the State. California has a restless and growing population—more people leave the state than any other, yet the state's population swells by over 550,000 people each year (since 1998). California schools are overcrowded, chronically underfunded, and adding 100,000 more students each year. Water issues and decision-making processes are not specifically addressed in the California Science or History-Social Science Frameworks. Future water leaders and consumers may not be getting enough information to make decisions that balance competing water needs while maintaining or improving water quality. Considering the current population trends it's unclear if most people understand where their water comes from and where it goes.

Water issues are becoming more difficult in California. There is no magic solution to any of them, even in the realm of desalination, where significant coastal environmental impacts are readily dismissed over the excitement of promising new technology. Issues are evolving rapidly and the public is expected to digest past history and assimilate an overwhelming amount of developing issues that affect the world of water. Water resources are directly or indirectly linked within the state—including Mono Lake. Decisions in one part of Califor-



*The Pasadena Police Department, working with Outward Bound Adventures and the Committee's Outdoor Experiences program brought this group to the top of Panum Crater.*

nia affect another. Education provides us the only opportunity to make sense of it all, and with an overburdened public school system, environmental science and decision-making processes are not necessarily a priority.

There are teachers striving to make a difference, and many of them are taking advantage of Mono Lake Committee resources. For educators, the Mono Basin is a dynamic outdoor classroom offering a wealth of learning opportunities in one of the last, large intact ecosystems in California. Prominent land designation, protection, and continuing scientific research have created an impressive pool of knowledge about Mono Lake and the local Eastern Sierra. This is why more school groups either make Mono Lake their main destination, or a necessary stop during their trip to the Eastern Sierra.

Unfortunately there are limited accommodations available for school groups that come from beyond the Eastern Sierra. Also, there is a noticeable decline in education resources. Today for example, the Mono Basin National Forest Scenic Area has a greatly reduced staff. There are fewer rangers available to lead education programs down at Mono Lake, and fewer program opportunities for educators. Some groups are turned away, even as the Mono Lake Committee increases its commitment to seasonal environmental education and interpretive programs.

### **A Solution and a Vision**

With more people coming to Mono Lake, more complex water issues, and the increasingly limited education assets available to students and educators, there is a real need to improve and expand education capacity in the Mono Basin. The Mono Lake Committee envisions an Outdoor Education Center (OEC) in the Mono Basin that will focus more education opportunities at a site-specific location, improve existing programs, and serve more students from Los Angeles, the Eastern Sierra, and California. The OEC will serve up to 60 students at one time and will create more options, flexibility, and educational capacity in the Mono Basin, while allowing for reasonable growth in education programs without overwhelming the solitude and beauty of Mono Lake. The Outdoor Education Center will greatly enhance existing education programs, marrying education opportunities to ongoing research and restoration.

With accommodation and infrastructure on site, more school groups can afford to explore and learn in the Mono Basin. With a small indoor classroom on site, learning in the field can be advanced in such ways as focusing on aquatic invertebrate specimens under a video microscope, or entering data taken in the field to further a student research project. The Mono Basin Outdoor Education Center will have its own curriculum focused on water with themes and activities that apply to different grade levels and subject areas. Science-based education will be the foundation with a wide range of interdisciplinary applications also available through history, social sciences, mathematics, and English. A strong curriculum combined with the local community of researchers will lead to exciting possibilities for both education and continuing scientific research. The Mono Basin can further be trans-



*DWP has suggested using the old Mendiburu Ranch site for the Mono Basin Outdoor Education Center.*

formed from a place of absorbing facts and experiencing magnificent landscapes to a place of active learning, contribution, and lasting connection.

The Mono Basin Outdoor Education Center is an opportunity to positively affect the future of Mono Lake and California water. It will allow the Committee to reach more students from more diverse neighborhoods—connecting Los Angeles and California with this unique, remote, and compelling resource. It will inspire conservation and stewardship of our natural and urban watersheds.

For years the Los Angeles and Mono Lake water controversy was symbol of California and western water woes. Visitors to Mono Lake perceived the struggle and urgency when they visited the lake. Today Mono Lake it is a symbol of positive water solutions. Visitors and students still ask how the lake is doing, whether Los Angeles is still taking the water, whether or not water conservation is making difference. Inevitably questions lead to more questions about water recycling, desalination, and agricultural vs. urban water use. Mono Lake is more than just a scenic destination or natural history classroom, it's an example of successful, cooperative solutions that meet the real water needs of people and their environment. Mono Lake is a landscape of hope in world of increasingly difficult water issues.

The Mono Lake Committee is thinking hard about the future of water for California, Los Angeles, and Mono Lake. Education will not solve all of our future water problems, but it will better prepare tomorrow's water users and decision makers for the challenges they will face. Solutions come from the right combination of ingredients. Education is one of them.

Twenty-six years ago the challenge was simple, but daunting. If Mono Lake had any chance for protection, people had to see it, understand it, and care about it. As we look to the future, that challenge is very much the same. ❖

*Bartshé Miller is the Committee's Education Director. He is also the office's beloved weather soothsayer—always looking just around the corner to the next season.*