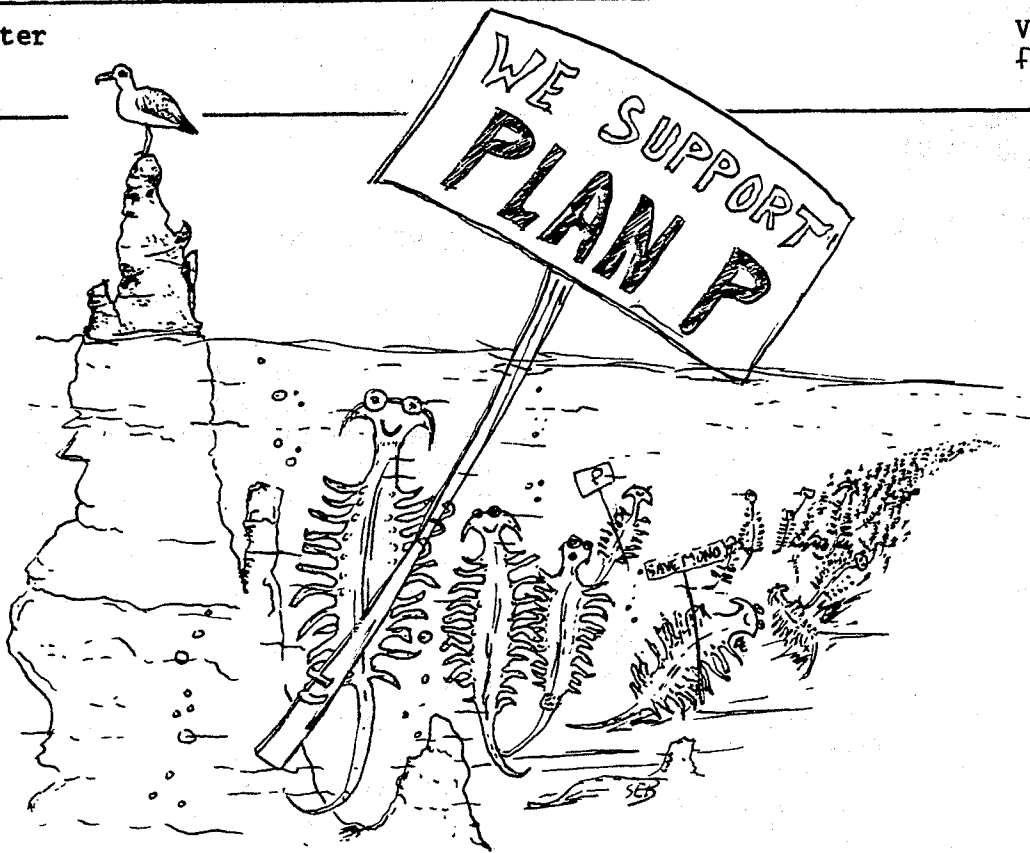


THE MONO LAKE COMMITTEE

Newsletter

Vol. 2 No. 2
Fall , 1979



TASK FORCE DRAFT PLAN PRAISED AT HEARINGS

LAKE FALLS ANOTHER 18 INCHES -- GULLS ABANDON NEGIT

Mono Lake may rise again! A draft plan recommended by the Mono Lake Interagency Task Force would restore the lake to its 1970 elevation of 6,388 feet, 15 feet above its present level.

At September hearings in Lee Vining, Palo Alto and Los Angeles, numerous individuals and groups praised Plan P, the Task Force's recommended alternative, for its emphasis on water conservation and wastewater recycling.

Plan P has been endorsed by the National Audubon Society, Sierra Club, Friends of the Earth, California League of Women Voters, many other citizen's groups, and every agency participating on the Task Force except the one that could bring it to fruition-- the Los Angeles Department of Water and Power.

At the Los Angeles public hearing on September 24th, officials from the City of Los Angeles, Metropolitan Water District, Industrial Association of the San Fernando Valley, and other water agencies and business groups joined the D.W.P. in attacking the Task Force plan, but failed to offer anything in its place. Much of this newsletter is devoted to discussing and answering their objections (p.3).

Meanwhile, as debate intensified over the summer, Mono fell 18 more inches, exposing another one-half mile of alkali-encrusted lakebottom along its eastern shore. Alkali dust violated both state and federal 24-hour particulate air pollution standards (p.10). And broken egg shells and half-eaten chicks were all that remained of the Negit Island gull colony (p.13).

The MONO LAKE COMMITTEE is a not-for-profit citizen's group.

OUR PURPOSE: To preserve the scenic, wild-life and scientific values of Mono and other Great Basin Lakes by limiting water diversions to levels that are not environmentally destructive, to further public interest in the natural history and preservation of these lakes, and to facilitate relevant research.

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The MLC Newsletter features updates on the latest developments affecting Mono's future as well as articles on the natural, geological and human history of Mono and other Great Basin lakes, reviews of current research and recent publications, plant and animal checklists, and announcements of field trips and talks. We invite your comments and contributions.

IMPORTANT! If your copy is improperly addressed, if you fail to receive an issue, or if you are moving, please let us know!

THE SECRETARY-TREASURER SPEAKS

The amount of incoming mail has greatly increased in the last four months. Luckily, I had lots of good help this summer. But many different helpers means there will be some redundant letters, misplaced letters, misspelled names and burnt rice. Please have patience with us-- behind the scenes is just a handful of dedicated volunteers. We can always use more.

Actually, a few of us, Dave, Sally, Stephanie, Elliot and Tom, are now receiving room, board and \$75 a month pocket money for our full time effort. Thank you contributors for making it all happen. We need help getting on a health plan, any suggestions?

Thank you, Dad, for the gift of the used IBM electric out of your office. we need it. Anyone care to donate a real secretary or bookkeeper?

When you send in a change of address card, please tell me the zip code of your old address too. Our 2000 subscriber cards are arranged by zip, not the alphabet.

Be sure to read the important notice on our last page-- **DONATIONS TO THE MONO LAKE COMMITTEE ARE NOT TAX DEDUCTIBLE!** (but those to the National Audubon Society and Friends of the Earth Foundation Mono Lake Funds are!)

TASK FORCE PLAN TO PRESERVE MONO LAKE

MLC SUPPORTS PLAN P

The Interagency Task Force on Mono Lake was formed in December, 1978, for the purpose of developing and recommending "a plan of action to preserve and protect the natural resources in Mono Basin." After 12 meetings, three public workshops, a field trip to Mono Lake, and briefings by experts, the Task Force released its "Draft Report" in August of this year.

The 101-page long Draft Report, in addition to scholarly introductory sections on the Mono Lake resource and the history of the water diversions, presents and discusses four alternative solutions:

1. Plan M (Statewide Water Conservation Plan) would restore the lake to an average elevation of 6,388 feet. Water consumption throughout California would be reduced thru a state and federal funded program of urban and agricultural water conservation and wastewater recycling.

2. Plan N (No Action Plan) would allow diversions to continue unabated. Mono Lake would become a birdless chemical sump and alkali dustbowl.

3. Plan O (Federal Plan) would restore the lake to an average elevation of 6,388 feet. The federal government would obtain rights to the needed water through negotiation or litigation, and manage Mono Lake as a National Conservation Area.

4. Plan P (Short and Long Range Plan) would also restore the lake to an average elevation of 6,388 feet. Water consumption in Los Angeles would be reduced through water conservation and wastewater recycling.

The Task Force has endorsed Plan P as the recommended alternative. The details of the plan are summarized in the adjoining box.

The Mono Lake Committee supports Plan P, and commends the Task Force for its objective appraisal of the issue and its reasonable, carefully considered solution. Plans M and O are also acceptable alternatives;

SUMMARY OF TASK FORCE PLAN P

I. Key points

1. A channel would be excavated between Negit Island and the mainland in Fall, 1979; predators would be removed from Negit.
2. Los Angeles water exports would be reduced to 15,000 acre-feet/year in order to provide an average annual inflow of 85,000 AF/year into Mono Lake; the 6,388 foot level would be reached in about 50 years.
3. L.A. would achieve 15% water conservation over pre-drought level by 1985, thereby reducing demand by 98,000 AF/year (39,000 AF more than that achieved in 1979).
4. L.A. would expand use of reclaimed wastewater by 56,000 AF/year by 1987 and 78,000 AF/year by 1990.
5. A five-year research program would be conducted by the B.L.M. and Calif. Fish and Game; the results would be used to reevaluate and adjust the magnitude of the water export in light of its effect on lake level and environmental values.
6. Legislation would protect L.A.'s right to increase its water export above 15,000 AF/year if Mono Lake rises above 6,388 feet.
7. L.A. would lose hydroelectric power, but consumer energy savings from water conservation would more than compensate for this loss.

II. Funding

1. State and federal governments would furnish 87 1/2% of the cost of water reclamation plants in L.A.
2. Cost of replacement water would be shared equally by the federal government, state and city for the first five years, and, if needed, by the state and city for the next two years; thereafter, conservation and reclamation would eliminate the need for replacement water.
3. L.A. would not be compensated for the loss of hydroelectric power.
4. The state would fund the excavation of the channel between Negit Island and the mainland.

Plan N, the "no-action plan," however, would not protect the Mono Lake environment and is therefore unacceptable.

TASK FORCE NEGLECTS GAS SAVINGS FROM WATER CONSERVATION

The only significant weakness in the Draft Report is its omission of the substantial natural gas savings accruing from water conservation, and its consequent inflated, misleading estimate of the cost of Plan P to the people of Los Angeles.

When water is saved by conservation, the energy needed to treat, distribute and heat that water is also saved. Plan P's modest conservation program will save, not only 57,300 acre-feet of water in Los Angeles every year, but also the equivalent of at least 800,000 barrels of oil.

The Task Force considers electrical savings, but disregards natural gas: the fuel used to heat interior water in 96% of the city's residences. When this savings is included, Plan P is found to save (not cost) the people of Los Angeles billions of dollars over the next fifty years!

The savings in natural gas is presumably excluded from the Task Force cost analysis on the grounds that the Los Angeles Department of Water and Power only sells water and electricity. This is an invalid argument. The Department is a public utility, not a private business. It is not its profits and losses which should be weighed, but rather costs and benefits to the people of Los Angeles.

At the public hearings in Palo Alto and Los Angeles, the Task Force agreed to calculate the natural gas savings and revise their cost analysis accordingly; the revised figures are not yet available.

IS PLAN P FAIR TO LOS ANGELES?

In a "Minority Report" included in Appendix G of the Draft Task Force Report, the Los Angeles Department of Water and Power condemns Plan P for imposing an unfair burden on the people of Los Angeles. The following discussion refutes their major arguments...

1. Low per capita water use does not excuse the destruction of Mono Lake. The Minority Report contends that because L.A. is "currently using less water than it did 10 years ago, and has a per capita use among the lowest in the state," it should not have to further reduce its water use to save Mono Lake. The Minority Report, however, neglects to mention that during the past 10 years the D.W.P. has doubled its diversions from the Mono Basin. Thus, although the people of L.A. have reduced their consumption, the D.W.P. has not shared a drop with its needy neighbors to the north. On the contrary, by squeezing more than ever from the Owens and Mono watersheds, it has realized enormous profits at the expense of the Eastern Sierra and the people who live there.

Because there is a place like Mono Lake at the other end of their taps, the people of Los Angeles have a potent moral obligation to use water frugally. Plan P's modest conservation program will realize an enormous additional reduction in L.A. water use.

2. Plan P will not necessitate water rationing in Los Angeles. The Minority Report maintains that "water rationing would be required nearly every other year, on the average, to guarantee a water use reduction, the amount of which is lightly more than half the reduction being recommended by the Task Force." On the contrary, the conservation measures called for in Plan P will guarantee a water use reduction of 57,300 acre-feet every year without water rationing. Because this entire savings is accomplished mechanically, that is, thru water-saving bathroom, kitchen and laundry fixtures, it requires no change at all in the water-use habits of the people of Los Angeles. The water will be saved every year regardless of climatic conditions. This is a very modest water conservation program. Substantial additional savings could be realized by reducing exterior uses of water thru drought-resistant landscaping, drip-irrigation, night-time watering, etc.

GAS SAVINGS FROM WATER CONSERVATION AND THE TRUE COST OF PLAN P

I. Gas Water Heater Energy Savings Resulting From Plan P

- A. Each acre-foot of blended hot water conserved results in a corresponding savings in the energy needed to heat that hot water
- B. 28,000 of the 57,300 acre-feet per year of water saved by Plan P's water conservation program is blended hot water
- C. Factors used for computing energy savings are the same as those used by the California Department of Water Resources (Bulletin 191, Appendix A).
- D. Savings in BTU's---
- $$= (\text{total blended hot water savings in AF})(\text{BTU's to heat 1 AF } 1^{\circ} \text{ F})$$
- $$(\text{average blended water temperature rise in } ^{\circ} \text{F})(\text{percentage of gas water heaters})(\text{reciprocal of gas water heater efficiency})$$
- $$= (2.8 \times 10^4)(2.72 \times 10^6)(4.2 \times 10^1)(9.6 \times 10^{-1})(1.54)$$
- $$= 4.73 \times 10^{12} \text{ BTUs per year}$$
- E. Savings in barrels of oil---
- $$= \frac{4.73 \times 10^{12} \text{ BTUs/year}}{6.05 \times 10^6 \text{ BTUs/bbl}} = 782,000 \text{ barrels per year}$$
- F. Savings in dollars at present costs---
- $$= (4.73 \times 10^{12} \text{ BTUs})(0.27\text{¢ per } 10^5 \text{ BTUs of gas})(10^{-5}) = \$12.8 \text{ million}$$
- G. Total savings in dollars at 7% inflation in cost of natural gas, 1980-1990, with Plan P = \$169 million
- H. Total savings in dollars at 7% inflation in cost of natural gas, 1980-2029, with Plan P = \$5169 million

II. Total costs for Plan P revised to include gas savings from water conservation, 1980-1986. After 1986, Plan P will cease to cost the state and federal governments anything, and will save the people of Los Angeles billions of dollars.

| | | |
|-------------|-----|--------------|
| Federal | --- | \$11,656,000 |
| State | --- | \$16,037,000 |
| Los Angeles | --- | \$19,712,000 |
| Mono County | --- | 125,000 |
| TOTAL | --- | \$47,530,000 |

Note: If you would like a detailed derivation of the above figures, please write to The Mono Lake Committee, P.O. Box 29, Lee Vining, CA 93541.

3. Wastewater reclamation can be furnishing at least 28,000 acre-feet per year by 1987. The Minority Report argues that the Task Force Plan "is totally lacking in a necessary discussion of the serious health concerns related to spreading reclaimed wastewater into groundwater basins." While such concerns are probably unfounded, we agree they should be addressed. There is no such concern, however, impeding the use of reclaimed water for landscape and agricultural irrigation as well as for a wide variety of industrial applications. Half of Plan P's 56,000 acre-feet per year of reclaimed water fall in this category. Moreover the City of Los Angeles projects that up to 11,500 additional acre-feet per year may be used for irrigation purposes by 1987. Thus, even if health concerns prohibit spreading, wastewater reclamation could reasonably be saving between 28,000 and 39,000 acre-feet per year by 1987.

Water reclamation can therefore furnish at least 28,000 acre-feet per year by 1987. In conjunction with the 57,300 acre-feet per year saved by water conservation, this can yield the 85,000 acre-feet per year needed to protect the Mono Lake environment.

4. The cost of reclaimed wastewater will be reasonable. The Minority Report contends that "the cost of reclamation will likely exceed \$100 per acre-foot" and that "Plan P makes no provision for the reimbursement to the City" for the cost of this replacement water. The report criticizes the Task Force for failing to "point out the fact that.. wastewater reclamation.. would require large amounts of energy." While a cost in dollars and energy for reclaimed wastewater should be estimated, it will probably be modest. In recent years state and federal water quality legislation has required a degree of wastewater treatment that renders the effluent nearly suitable for reuse. The true price of reclaimed wastewater will consist, not of the entire cost of this treatment, but only of the additional cost needed to render the water reuseable and deliver it to consumers. Even \$100 per acre-foot is less than most Southern California communities currently pay for Metropolitan Water District (MWD) water.

5. Replacement water is readily available. The Minority Report states that the Task Force should "discuss the availability and reliability of alternate water supplies" in light of the loss of half of the M.W.D.'s Colorado River entitlement to Arizona and the uncertainty of dry year deliveries from the California Aqueduct. Until at least 1987, when the conservation and reclamation measures become fully effective, the M.W.D. will be able to supply Los Angeles with all the replacement water it requires. L.A. has paid about \$330 million, and will continue to pay millions more, to maintain its rights to 30 percent, or more than 600,000 acre-feet per year, of M.W.D. water. Currently L.A. is drawing only 3% of its supply, or about 20,000 A.F. per year, from this source. Certainly the City would not be paying immense sums of money for water that is unavailable should it be needed! M.W.D., in turn, currently enjoys an 800,000 A.F. per year surplus in its service area. Storage in the Colorado River reservoirs is approaching a record high of 53.5 million acre-feet and the Central Arizona Project will not become operational until at least 1985. In addition, L.A. can augment dry year supplies by drawing water stored in the San Fernando Groundwater Basin, for which it now has management responsibilities and legal access.

6. Los Angeles should not increase indefinitely in size at the expense of Mono Lake. The Minority Report bemoans the lack of "discussion relative to the availability or reliability of water supplies" to meet the "future water needs of Los Angeles resulting from modest growth in population and industry." Continued, unlimited growth is no longer desirable. It threatens to ruin, not only places like Mono Lake and the Owens Valley, but also the quality of life in the City itself. We must eventually limit our increase in numbers or smother in smog and alkali dust. Not just Mono is at stake, but the welfare of everyone who dwells on this planet.

7. The loss in hydroelectric power is amply compensated by energy savings resulting from water conservation.

The Minority Report argues that the reduction in water export from the Mono Basin "will result in the loss of hydroelectric energy.. equivalent to burning more than 400,000 barrels of fuel oil annually." Although this appears substantial, it amounts to only 1% of the energy consumed in L.A. Moreover the Minority Report (and the Task Force as well) overlook the magnitude of the energy savings resulting from water conservation. By 1985, the conservation program in Plan P will be saving the equivalent of over 800,000 barrels of oil annually, more than twice the loss in hydroelectric power.

8. The State Water Project should not have to increase deliveries to Southern California to replace the reduction in Mono diversions.

The Minority Report erroneously assumes that the 85,000 acre-feet of replacement water will have to derive from additional California Aqueduct flows pumped over the Tehachapi Mountains at a total energy cost equivalent to 450,000 barrels of oil. In light of the M.W.D.'s currently abundant water supply and the 800,000 acre-foot per year surplus in its service area, however, there should be no need for increased deliveries from the State Water Project. While there will be an energy cost associated with M.W.D. replacement water, it will be much less than the Minority Report postulates. Moreover this cost will rapidly diminish as water conservation and reclamation eliminate the need for replacement supplies. By 1987, it will disappear entirely.

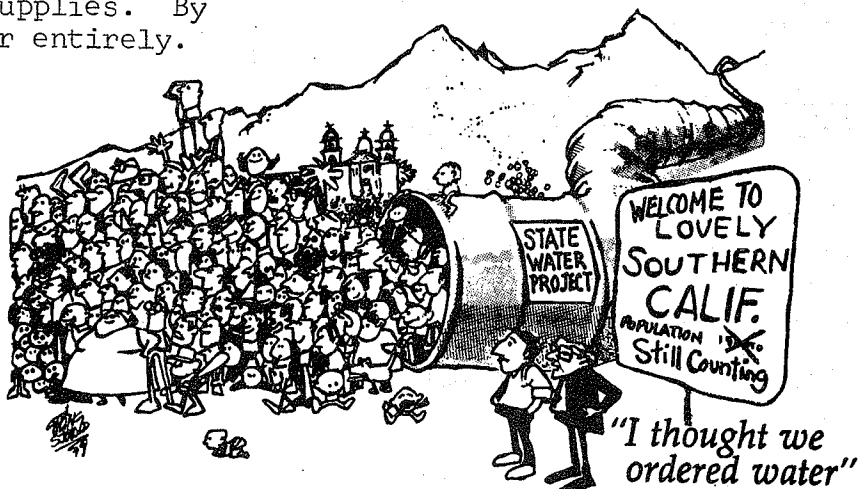
9. Plan P will abate air pollution.

The Minority Report alleges that "increased oil burning in the Los Angeles basin.. would hinder the efforts of both the State Air Resources Board and the South Coast Air Quality Management District in their air pollution programs." The increase in air pollution resulting from oil-fueled generation of 1% of L.A.'s energy would amount to an insignificant 0.13%. With modest energy conservation, there would be no additional pollution at all. This must be weighed against the serious and worsening pollution of Mono's Class A air basin from alkaline dust blowing off 20,000 acres of exposed lakebottom. Plan P will alleviate this pollution and improve air quality, assuring the health of not only Mono Basin residents, but also that of the many smog-weary Los Angeles and South Coast vacationers who visit this region every year.

10. Plan P will have no adverse impact on Crowley Lake and Owens River fisheries, and will restore fisheries in lower Lee Vining and Rush Creeks.

The Minority Report cites "adverse impacts on Crowley Lake and Owens River fisheries" as a consequence of reduced Mono Basin diversions. These fisheries are fed by water from the upper Owens River drainage and only depend on the Mono diversions for supplemental flows. Even if the diversions were terminated entirely, about 10,000 acre-feet per year (from groundwater and springs) would still flow out of the Mono Craters Tunnel into the Owens River. Plan P allo-

Cartoon by
Erling Sjevold,
15 year old artist.



from WATERLOG (see p. 17).

cates an additional diversion of 15,000 acre-feet to supplement this flow. This would be more than adequate to maintain flourishing fish populations in Crowley Lake and the Owens River.

11. Plan P will save (not cost) the people of Los Angeles billions of dollars. The Minority Report argues that "the cost of Plan P to the people of Los Angeles in terms of water energy and dollars is clearly unreasonable" and "the financial cost alone... would be at least \$936 million" over the next fifty years. In fact the cost of replacement water will be shared equally by the State, Federal Government and City of Los Angeles. The cost of replacement energy will be more than compensated by the energy savings accruing from water conservation. These energy savings will save city residents approximately \$4.0 billion over the next fifty years.

12. The D.W.P. has already amply profited, and will continue to profit, from its Mono Basin facilities. The Minority Report complains that "Plan P places an unfair burden on the people of this city without appropriate consideration of the City's water rights or the more than \$100 million invested by Los Angeles in diversion, conveyance and power generation facilities." The City's investment, however, has already paid for itself many times over during the 40 years the D.W.P. has been diverting Mono Lake's tributary streams. Under Plan P the City's facilities will still be utilized for the diversion of at least 15,000 acre-feet per year.

13. Preserving Mono Lake is a beneficial and highly important use of the state's water resources. The Minority Report implies that water is wasted "as it enters and evaporates from the highly mineralized water of Mono Lake." The waters feeding Mono Lake, far from being wasted, sustain a phenomenally life-productive living community, millions of birds, an invaluable natural laboratory for scientific studies, a

unique species of brine shrimp (Artemia monica), and a dramatic scenic resource duplicated nowhere else on earth. It is not the water that flows into Mono Lake which is wasted, but that which flows needlessly down sewers and gutters.

14. Delay in reducing diversions risks serious, irreversible harm to the Mono Lake environment. The Minority Report contends that an immediate reduction in water export is not justified "unless or until responsible studies prove that substantial damage to Mono Lake will result and that no other less costly solutions are available to correct identified problems." The report also states that the Mono Basin diversions should not be curtailed while the research program outlined in Plan P is in progress.

There is no need for research to substantiate the damage that has already been inflicted on the Mono Lake environment. Why has the National Guard attempted to dynamite channels between Negit Island and the mainland for the past two years? Why has the state legislature appropriated a quarter of a million dollars to protect the island? Why has the Air Resources Control Board established air monitoring devices in the Mono Basin? Why did Secretary of Resources Huey Johnson establish the Interagency Task Force?

The 5-year research program will verify, in all likelihood, the need for an average lake level of at least 6,388 feet. If, as the D.W.P. desires, diversions were to continue during the research period, the damage to the Mono Lake environment would almost certainly be devastating and irreversible. Without water, the quarter of a million dollars spent on channel dredging will not protect the nesting seagulls. Without water, the already severe alkali dust pollution will worsen. Without water, the lake will become so saline that no birds, and eventually no shrimp, will be able to live there. Each passing year will bring us closer to a major ecological disaster.

On-going Research

CALIFORNIA GULL STUDY

This summer, David Winkler completed the first year of a 3-4 year study of the nesting ecology of Mono Lake's California Gulls. He is focussing on the relationship between adults and young.

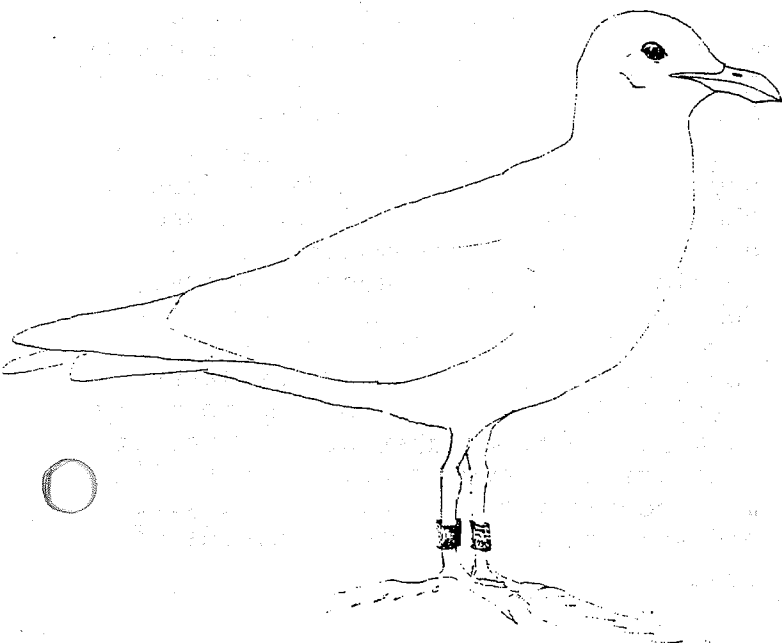
WATCH FOR COLOR-BANDED GULLS

Winkler and his co-workers, working on the islets northeast of Negit Island, banded 1200 gull chicks with Fish and Wildlife Service aluminum and color bands (either red or green). The color and location of the bands on the gulls' legs are coded according to the area of the colony where they were born.

Mono Lake's future is presently being debated. It is important to gather as much data as possible on the Mono gulls' biology at all seasons. Please help by searching the California Gulls that you counter for leg bands. Please send any observations to:

David Winkler
Museum of Vertebrate Zoology
University of California
Berkeley, CA 94720

or
Bird Banding Laboratory
Office of Migratory Bird Management
Laurel, MD 20811



BLEAK OUTLOOK FOR MONO SHRIMP by David Herbst

Most brine shrimp of the genus Artemia inhabit inland lakes or coastal salterns which contain sodium chloride (table salt) as the predominant dissolved salt. The Mono lake species of brine shrimp (Artemia monica) by contrast inhabits a most peculiar type of alkaline salt lake known as a "triple water" lake (containing chloride, sulphate and carbonates). The objective of my studies has been to characterize the basic physiology of this species with respect to how it adapts to varying concentrations of this unusual chemical environment. This may aid in understanding both how different populations of Artemia have evolved in different habitats and how the Mono Lake variety of Artemia will respond to the increasing salinity brought about by diversion of its fresh water.

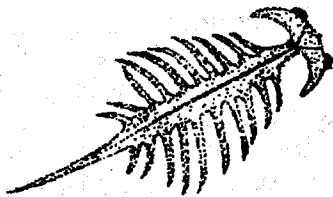
The results of studies involving direct transfer of brine shrimp from Mono Lake into both more dilute and more concentrated salinities of lake water indicate that these animals survive short term exposures to dissolved salts up to two times as concentrated as present day lake water. Above this salinity, however, death rates increase rapidly and none survive longer than three days in lake water three times as saline as the present day lake. As the brine shrimp become stressed, the salt content of their body fluids increase, due to becoming dehydrated by the highly saline water in which they are immersed. In addition, the level of oxygen consumption is decreased under salt stress and thus they cannot derive enough energy for their metabolism to operate normally.

If diversion of the lake's fresh water streams continues unabated, one model suggests that the lake will eventually stabilize at a salinity some three and one half times as concentrated as at present. This is beyond the limit of salt tolerance in the present population of Artemia at Mono Lake. All other things being equal, the abundance of brine shrimp is likely to be substantially diminished when the lake has evaporated to twice its present salt content in about 25 years.

REPORT ON BRINE SHRIMP SYMPOSIUM
by David Herbst

On August 20-23 of this year, the first international symposium on brine shrimp (Artemia) was held in Corpus Christi, Texas. Experts from throughout the world shared information on topics ranging from aquaculture (use of brine shrimp as food for raising commercially important aquatic animals such as fish and shrimp for human consumption) to genetics and molecular biology. Several of the papers presented at this meeting were of relevance to the brine shrimp of Mono Lake. I presented the results of recently completed experiments on the physiology of salt tolerance (see on-going research section of this newsletter) while Petra Lenz of U.C. Santa Barbara discussed some aspects of ecology and distribution within the lake, and Sarane Bowen of San Francisco State University summarized information concerning the genetic identity of different populations of brine shrimp including the Mono Lake variety. It was once thought that all brine shrimp belonged to a single widespread species, Artemia salina. However, from the thorough studies compiled by geneticists interested in species characterization has come the recognition of several distinct, reproductively isolated species, including the population at Mono Lake, designated now as Artemia monica.

In a workshop the final day of the meeting, devoted to discussion of species characterization, a resolution was drafted calling for, among other things, a preservation of all natural habitats in which unique populations of Artemia occur. In view of the increasing importance and use of Artemia in aquaculture, this recommendation emphasizes preservation of different genetic stocks which may someday prove useful as the basis for human food production programs.



ALKALI DUST AIR POLLUTION DUE TO
THE DESSICATION OF MONO LAKE:
A REVIEW (PART 1)
by Evan Sugden

Abstract

The shrinkage of Mono Lake is stirring up an increasingly serious air pollution problem. The lake's receding waters have uncovered, not only a land-bridge to Negit Island, but also thousands of acres of shoreline encrusted with alkaline deposits. These deposits are easily blown aloft by the strong winds which frequently scour the Mono Basin. Particulate matter is blown into pillars and billowing clouds of white, caustic dust which may reach thousands of feet into the air and travel many miles from the lakebed itself. This dust may be threatening plant and animal life in the basin and beyond. It is believed to be detrimental to human health. The problem is increasing in severity in direct relation to the acreage exposed by the falling lake.

The Problem

Since the completion of the Mono Basin extension of the Los Angeles Aqueduct in 1941, the level of Mono Lake has been falling at an unnaturally rapid rate. Only during the past decade, however, have vast acreages of former lakebed been exposed. This is due to (1) the flat-bottomed profile of the lake and (2) the 1970 doubling of diversions by the LADWP. The surface of the lake has now reached shallow sloping lake-bottom areas, especially along its eastern and northern shores. As a consequence, lake-bottom is being exposed more rapidly than ever before.

These exposed lake-bottom sediments dry into mudflats. Evaporation cracks the hardening mud into fissures and concentrates the lakewater's salts. In time the surface becomes entirely dehydrated, leaving thin, flocculent layers of the alkaline material once contained in solution. These layers resemble heaving frost on the normally dark lake-bottom substrate. Winds of moderate to heavy strength break off microscopic flakes from these layers and stir them into immense clouds of dust.

Dust Continued

As the surface layers are blown away, more alkaline materials are drawn up by capillary action from the underlying salt-saturated sediments. The exposed lake-bottom functions, therefore, as a long-term reservoir for air pollutants. The dust will not abate for thousands of years.

Qualitative observations indicate that clouds of dust from the exposed shoreline of Mono Lake may rise thousands of feet and travel tens if not hundreds of miles before being deposited. The eastern two-thirds of the lake, including Negit and Paoha Islands, may be entirely obscured in a dense, fog-like cloud of dust. Visibility within such a cloud may be reduced to hundreds of feet. An airline pilot has mistaken the dust for a volcanic eruption.

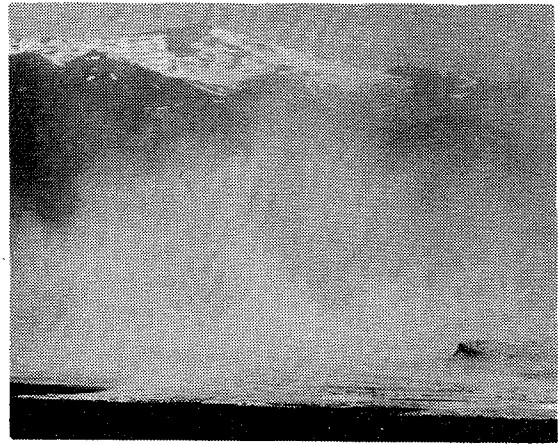
Data on the Mono Dust

Research on the Mono Lake dust problem has only just begun. In June of this year, the Great Basin Unified Air Pollution Control District placed bulk air samplers at two locations near the north shore of the lake. These samplers filter out all particulate matter from a measured volume of air at regular intervals. The total accumulation is then weighed and an average figure for airborne particulate matter is derived (in micrograms per cubic meter of air).

The District plans to install two additional filtering devices in tandem with the existing bulk air samplers. These devices will remove particles according to their size and hence yield a more detailed profile of air quality.

While the data base is still very small, both state and federal 24 hour ambient air quality standards have already been violated.

Part II, to be printed in our next newsletter, examines the similar Owens Lake dust problem and its relationship that at Mono.



Windswept dust from the exposed lake-bottom obscuring Negit Island. Because of its alkaline chemistry, the dust endangers the health of people, plants and wildlife far from Mono's shores.

MONO CASE WINS EARLY TRIAL

The Mono Lake lawsuit filed on behalf of the National and Los Angeles Audubon Societies, Friends of the Earth, and the Mono Lake Committee in April, is moving steadily towards trial. Because the L.A. Department of Water and Power was unwilling to try the case in Mono County, it was transferred to Alpine County on July 13. A pre-trial hearing has been set for November 7 in Markleeville, and the trial is expected to follow within 30 to 90 days.

Our lawyers are presently in the process of "discovery", that is, serving interrogatories and deposing key witnesses. D.W.P. has already served and received answers to their first set of interrogatories and deposed the name plaintiffs (including a marathon 8-hour session with David Gaines).

An early trial date is crucial if the issue is to be resolved before the next gull breeding season. We are doing everything possible to prepare our case by November 7th, and to convince the court that delays are neither needed nor justified.



Buddy Noonan - Mammoth Lakes District Review

Labor Day Bucket Walk Fills Mono Lake

LABOR DAY BUCKET WALK FILLS MONO LAKE

The Labor Day walk at Mono Lake, to protest the Los Angeles water diversions in the basin, was a tremendous success. About 250 people from all across California showed up with buckets in hand ready to bring wet relief to the drying lake. Each participant dipped his or her own bucket into the stream above the L.A. diversion dam and carried the water four miles down to the lake, symbolizing their support for saving Mono.

The walkers generated many smiles and nods of agreement from passing motorists and tourists as they marched along the highway and through the town of Lee Vining. Los Angeles television filmed the event for the evening's news. And the story was carried in newspapers all across the country.

Indeed the word is reaching out to people everywhere about Mono's plight. The walk was intended to do just that--arouse public concern for the survival of this beautiful and unique lake. But even more it seems, the walk gave each participant a wonderful sense of satisfaction that the lake will and must be saved.

Many thanks to all the people who walked and delivered water to Mono, and to all who helped make the event a success: CALTRANS, Highway Patrol, Richard Hubbell, John Harris, Ken Croy, Nate Nealey, David Herbst, Peter Vorster, Stephanie Zeiler, Elliot Burch, David Gaines, Stephen Johnson, John Ross, and Marcia Dore.

OLD MONO LAKE PHOTOGRAPHS WANTED

We would like to see (and duplicate) your old Mono Lake photographs. We'll be using them to illustrate the toll that water diversions are taking on the Mono Lake landscape. If you prefer to copy them yourselves, send us the duplicates and we will reimburse you for your expense. Please send to: Mono Lake Committee, P.O. Box 29 Lee Vining, CA 93541

NEWSPAPER CLIPPINGS WANTED

Help us maintain our file of newspaper and magazine clippings relating to Mono Lake! Please send clippings to: Mono Lake Committee, P.O. Box 29 Lee Vining, CA 93541

GULL NESTING SUCCESS NIL ON NEGIT

Not a single gull chick was raised on Negit Island this year. A census of the island in early July by University of California biologist David Winkler revealed only scattered egg shells and half-eaten chicks. The dire predictions of years past had been all-too-tragically realized. Mainland predators had crossed the landbridge between the mainland and the island, and routed all of Negit's 38,000 nesting gulls. Less than one-fourth of the Mono gull population raised any young at all this year.

Here are Winkler's final census figures:

| Colony | #'s of Breeding Adults | |
|--------------------|------------------------|--------|
| | 1976-78 | 1979 |
| Negit Island | 38,400 | 0 |
| Islets NE of Negit | 8,300 | 6,800 |
| Islets W of Paoha | 0 | 4,000 |
| Paoha Island | 0 | 0 |
| TOTALS | 46,700 | 10,800 |

AB 367: REPRIEVE (?) FOR THE GULLS, BUT NOT THE LAKE

On September 14, Governor Brown signed AB 367 into law. This bill, authored by Assemblyman Norman Waters, appropriates \$250,000 from the California Environmental Protection Fund (personalized license plates) for the "best available temporary means for protecting the Negit Island gull rookery."

This is not the same AB 367 which called for an end to the Los Angeles Department of Water and Power diversions until Mono Lake reached its 1970 level. The original bill was amended in August as an "urgency measure to save the gulls." This autumn, under the supervision of the California Department of Fish and Game, a channel will be dredged through the landbridge that currently connects Negit Island to the mainland. Fencing and "predator control" are also envisioned. Next spring, when the gulls return to their ancestral nesting grounds, they will hopefully find an island and not a peninsula.

However, as the bill states, dredging is at best a temporary reprieve. The effort will be wasted unless more water starts flowing into the lake in the very near future.

In January, the California legislature reconvenes. If Mono Lake is to live, it is crucial that the recommendations of the Interagency Task Force be translated into law.

Now is the time to bring the Interagency Mono Lake Task Force Report to the attention of our state and federal elected officials.

YOU CAN DO IT TOO!

Fielding Greaves of Marin County submitted a resolution in favor of saving Mono Lake to his County Board of Supervisors. It was adopted. If you would like to take part in this campaign, please write us and ask for a copy of the resolution.



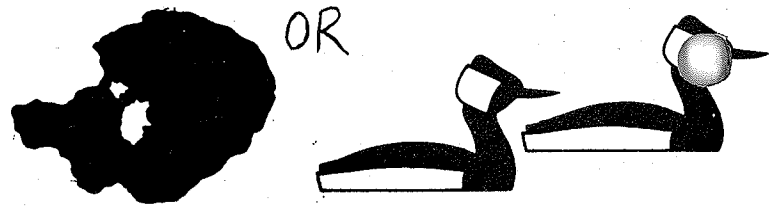
Jim Stroup

Summer Field Trips

This summer over 600 people ventured to the shore of Mono Lake to better understand its unique ecology and the perplexing problems associated with water diversions. These free, half-day field trips were sponsored by the Mono Lake Committee and offered every Saturday and Sunday throughout the summer.

Field trips began at the Mono Lake County Park where we took a short hike to the shore. Here we discussed Mono's early geological history, the lake's ecology, bird life, history of diversions, and practical solutions to saving Mono Lake. From there we carpoled to Panum Crater on the south-west shore of the lake. The hike around the pumice ring offered us a magnificent view of the lake and its islands, not to mention the striking geology of the volcanoes and of the surrounding glaciated Sierra. Our last stop was at the South Tufa Grove for lunch, canoe adventures, and swimming. For most of us this was the most relaxing part of the day as well as a great opportunity to take advantage of the cleansing properties of the water. (Many of the field trip participants had spent long days camping in the mountains 😊)

The field trips proved the perfect method of dispelling the fallacious notion that 'Mono is a dead lake'. The leaders--Stephanie, Elliot, David, and Sally were rewarded by the many positive comments from people and families at the end of the trips. We enjoyed meeting all of you!



Should this outline of the lake replace the two eared grebes as the MLC logo? Eared Grebes occur elsewhere and there is more to the issue than birds. But there have been some negative comments on the lake outline design too. "Looks like a blob; looks like a Rorschach ink blotch test." A young boy saw the design in the visitor center and exclaimed: "look, mom, a cat stepped here."

Anyone have any suggestions or alternative logo designs?

TUFA AWARD FOR LETTER WRITERS

Those of you who have responded to our urgings to write letters for Mono are effecting great results. The formation of the Interagency Task Force was due to the many pounds of letters arriving at certain key desks in Sacramento. Your letters are making Mono Lake a household word among legislators, supervisors, mayors and newspeople. Keep up the good work. Keep your wits and pencils sharp; we will call on you again.



Betty Stevenson

THOUSANDS VISIT MONO LAKE VISITOR CENTER

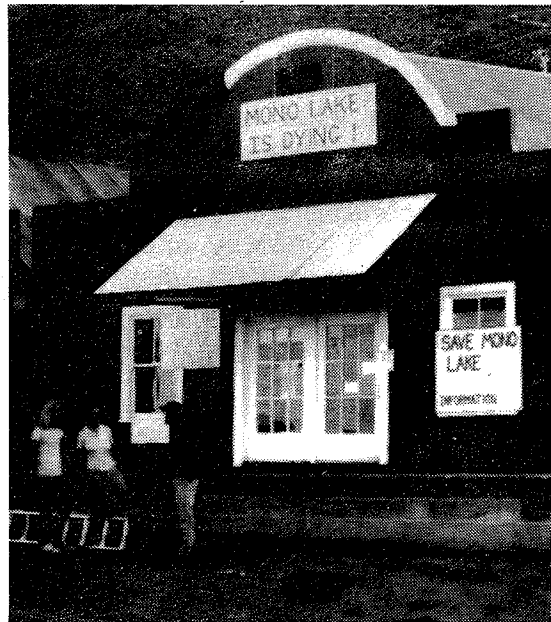
Over 6500 people, including many foreign travellers, visited the Mono Lake Committee's Lee Vining Visitor Center during its successful first summer. They browsed through our many displays, looked at brine shrimp in our aquarium, picked up information, signed petitions, purchased bumper stickers and T-shirts, and left many donations and new memberships. Their response was overwhelmingly supportive. Our most regular guest, however, was a local cat named Maxine, who became quite a favorite with everyone.

Late in the autumn, when the tourist traffic slows down, we hope to move the visitor center to the Los Angeles area. We are still searching for suitable quarters (please let us know if you have any leads or suggestions). Those interested in helping in Southern California should contact Tom Cassidy, c/o Kunin, 3018 McConnell Drive, L.A. 90064; 213/838-6968.

We owe a great debt of gratitude to the following volunteers who have faithfully kept the visitor center open throughout the summer: Meryl Sundove, Ken Croy, Tom Cassidy, Mary Kelley, Sally Judy, Stephanie Zeiler, Elliot Burch, David Gaines, John Harris, Dave Herbst, Nate Nealley, Peter Vorster, Dave Smart, Jim Stroup, Peter Schmalenberger, Libby Myers, Leslie Smith, Carolyn Lynch, and Evan Sugden.

They have answered such questions as "Is it true that there are monkeys on Paoha Island?", "Got any quarters for the ice machine?", "Can you reserve a room for me in Yosemite?", besides the usual "What is happening at Mono Lake?".

In August Mr. Dan Taylor from the Western Regional Office of National Audubon Society came to tour the lake and learn how the Mono Lake Committee functions. We took him to the visitor center and waited expectantly for a visitor to enter. Here he comes! He stands blinking at all the displays



covering the walls. We proudly ask, "Do you have any questions?," ready to fill him with Mono facts, and he says, "What's the best route to Tonopah?"

Then there was the family that walked in after their restaurant dinner. The teenage girl came in and stated, "We don't want to know about Mono Lake, but is there a movie theater in town?". No, I am sorry, no movie theater. Great disappointment and ennui among the family for a moment. Then mom sees the aquarium. "Look, kids, sea monkeys." Soon everyone is interested and exclaiming about the displays. They want to know more about the lake. "Well, come on our field trip tomorrow." "Can we, mom?, Can we, dad?." Excited chattering as they go out the door. I guess they like the movie.

Almost half-way through the summer we realized the visitor center building needed a large, eye-catching sign. So Elliot painted "MONO LAKE IS DYING" in bold letters above the door. Several days later a man came in and said, "You know, there is a difference between dying and being murdered."

MONO DISPLAYS AVAILABLE

We now have educational display packets available on Mono Lake. These materials are to be used wherever people will stop to view them (libraries, conservation centers, information booths at fairs, etc.). The packets consist of 8X10 color photos of Mono's scenery and wildlife, diagrams and text, which when mounted make a very attractive and informative display.

If you could use these materials, please write to:

Mono Lake Committee
Box 29
Lee Vining, CA 93541

If you would like a large number of give-away informational leaflets, contact:

Julia Rosenstein
1981 Bonifacio St. #9
Concord, CA 94520

Please arrange Mono Lake slide shows through your closest regional representative. You can borrow the slide set and script, or schedule for a volunteer speaker to come.



I SAVE WATER

We hope all of you are actively practicing water conservation; we would feel silly if we were supported by gutter-flooders. (From what I saw in one section of L.A., I decided it is the gardeners who need educating as much as the homeowners and families.)

W.A.T.E.R.

Working Alliance To Equalize Rates is a new group that deserves our support. The first issue of their newsletter WATERLOG takes a penetrating look at the policies and finances of Southern California water agencies. For further information, please contact: Dorothy Green, 801 Holmby Ave., Los Angeles, CA 90024.

PHOTO EXHIBIT AND WINE TASTINGS

On September 28 the Fresno Audubon Society continued towards its Mono Lake fundraising goal of \$5000 by offering a wine-tasting combined with a preview of Steve Johnson's 'AT MONO LAKE' fine arts exhibition.

The Fresno First National Savings and Loan graciously hosted the event at their lovely office. Over 300 people enjoyed a fine evening of gourmet food and drink while admiring several dozen high quality photographs. Photographs of Mono Lake and its life are still being solicited for this growing exhibition expected to tour throughout the nation. For more information contact Stephen Johnson c/o Friends of the Earth, 124 Spear St., San Francisco, CA 94105

Special appreciation to those who made it happen: Joyce Hall, Chuck Peck and Bob Winter of Fresno Audubon; Doug Harwell, Gary Schroder, and Irma Shumway of the Tehipite chapter of Sierra Club; Steve Johnson; and First National Savings and Loan.

On September 29 your fearless leader was seen at another wine-tasting benefit for a drying lake. Gorgeous weather made the Richardson Bay Audubon Sanctuary the perfect setting. George Peyton, a director of National Audubon, treated 50 people to an exclusive sampling of some of his favorite wines.

Afterwards Robert Binnewies showed a few slides illustrating the important decisions he faces as the new superintendant of Yosemite National Park. He also expressed his support for preserving Mono Lake.

An Avalanche of New Members!

In each of our previous newsletters we have listed the names of each of our new members. In the last three months, we have had an avalanche of new supporters -- close to 500 individuals! Since we are swamped with work, and the task of typing each of your names is staggering, we have decided to thank you all collectively in this issue.

We are overwhelmed and overjoyed by your support.

We will continue to thank individually all who have given us additional contributions for the lawsuit or renewals. We appreciate the continued support of:

MONOMANIACS: Mort and Edie Gaines, Florence Sharp.

MONOPHILES: Elna S. Bakker, Jean G. Dale, Rick and Grace deLaet, Cherry Franklin, Monterey Audubon Society, George and Harriet Powell, Sue Sanford and Rick Vicenti, Ane Revetta.

PATRONS: Madrone Audubon Society, Virginia Norris, Dr. and Mrs. Wurgler, Elise White.

SPONSORS: John Boynton, George Burger, R.R. Delareuelle, Alan D. Fong, Bradley and Katherine Holbrook, Mrs. Betty Hughes, D.O. Hammond, Mary Ann Henry, Mary Hallesy, Verna Johnston, Albert and Margaret Kraght, Rob Morris, Jeanne W. Pond, Jean-Marie Spoelman, Mike Shannon, James B. Synder, Charles and Patty Simis, Karl B. Zeiler.

SUBSCRIBERS: Ruth B. Allen, Irene Biagi, Mr. and Mrs. Brenneis, R.W. Carpenter, Carol Conway, Caryl DeCosta, N.J. Donovan, Harriet Denlay, Rollin Enfield, Al Flinck, Chris Gillem, D. Russell Hetsler, Louise C. Hill, Mary Hobson, Hazel Koehler, Elizabeth Linscott, Miss Gloria Markowitz, Mary Meisel, Gregory Maltby, Ann Merdershausen, Marge Meek, Nina O'Donnell, Rochelle Oldfield, RW and Darlene Palmer, Nancy Price-Robinson, Roland Pfeifer, Karon Rule, Richard and Lynne Spotts, George Scholz, Dr. MDF Udvardy, Marion Yasintsky.

ACCOLADES

To the National Audubon Society for funding the visitor center in Lee Vining. Phil Schaeffer and crew at Audubon's Western Education Center has taken a big job off our hands by handling the T-shirt mail orders. We are grateful to Angeles Chapter of Sierra Club for getting out a press release on the Task Force Plan and Hearing. Florence Sharp has kindly lent us a desk top copier and offered the use of a 16mm film/sound outfit. Three coyote howls for David Barrett who donated three evenings of native american storytelling.

Thanks to those helping at the MLC booth at the Labor Day fair in Mammoth: Mary Hanson, Mort and Edie Gaines, Deveree Kennedy and Friends of the Meadow. The Outfitter in Mammoth is selling Mono shirts and donating profits to the cause.

Continued applause to all folks out there working away for Mono Lake.

SUPPORT THE BIRD-A-THON!

HELP AUDUBON FUNDRAISE FOR MONO LAKE!

On November 24, 1979, the National Audubon Society will sponsor the first California BIRD-A-THON. To participate you need only convince several sponsors to contribute money for every species of bird you are able to see on that day (5¢-25¢ are common pledge amounts). After the Bird-A-Thon collect the pledges and submit them to the National Audubon Society or the Mono Lake Committee (checks should be payable to National Audubon). Prizes will include trips to Hawaii and Mexico as well as spotting scopes and binoculars.

This fund-raiser will benefit Audubon's conservation efforts in California. Participants may earmark the money they raise for either Mono Lake or the California Condor.

MLC members are invited to solicit pledges on behalf of our chairperson, David Gaines, who promises to "bird like crazy" on Nov. 24th. All funds so raised will go towards preserving Mono Lake.

For more information, please contact: The Mono Lake Committee, P.O. Box 29, Lee Vining, CA 93541; 714/647-6386.

Contributions to the BIRD-A-THON are tax-deductible.



MONO LAKE T-SHIRTS



Praise goes to Becky Shearin, Lee Vining artist, for a T-shirt design that truly evokes the magic of Mono.

You can help support the defense of Mono Lake by purchasing a Mono Lake t-shirt. All profits from the sale of each shirt go directly into funding continuing efforts on behalf of the Lake and its unique biological and geological resources.

RETAIL INQUIRIES WELCOME

ORDER FORM

Name _____

Address _____

City _____

MEN'S ☐ blue ☐ beige ☐ large ☐ x-large
☐ small ☐ medium

WOMEN'S (french cut) ☐ blue ☐ beige ☐ large size 12 CHILDREN'S ☐ blue ☐ beige
☐ small ☐ medium ☐ large ☐ small ☐ medium ☐ large
6-8 10-12 14-16

PRICE: Men's \$6.50; Women's \$7.50; Children's \$5.50.

Enclosed is _____ for _____ t-shirt(s) plus \$1.25 for postage and handling. (California residents add 6% sales tax.)

Make checks payable and send to:

NATIONAL AUDUBON SOCIETY, Western Education Center, 376 Greenwood Beach Road, Tiburon, California 94920

The Mono Lake Committee is a non-profit, tax-exempt corporation organized for the purpose of conducting research, educating the public, and influencing public opinion about the dangers to Mono Lake. Contributions to the Mono Lake Committee are not tax deductible since the organization plans to take an active role in supporting legislation protecting Mono Lake.

Contributors who wish to make a tax deductible donation to continue the general educational activities and litigation concerning the lake should address their contributions to the National Audubon Society or Friends of the Earth Foundation.

YES, I WANT TO MAKE A TAX-DEDUCTIBLE DONATION TO THE MONO LAKE CAUSE...

These funds will be supporting our non-lobbying expenses, in particular, education, research and the Mono Lake lawsuit...

Via The National Audubon Society

Make check payable to: National
Audubon Society - Mono Lake Fund

Name: _____

Address: _____

Via Friends of the Earth Foundation

Make check payable to: Friends of the
Earth Foundation - Mono Lake Fund

Name: _____

Address: _____

please send to: The Mono Lake Committee, P.O. Box 2764, Oakland, CA 94602

Please fill out this coupon and send to:

MONO LAKE COMMITTEE
P.O. Box 2764
Oakland, CA 94602

Make checks payable to: The Mono Lake Committee

Contributions are NOT tax-deductable.

name _____

address _____

city _____

state _____

zip _____

I want to help Mono Lake live on.

Here is my contribution of \$ _____ for the
Mono Lake Legal Defense Fund.

Here is my contribution for:

- ☐ \$10 regular membership
- ☐ \$5 "I can't afford more" membership
- ☐ \$25 sponsor
- ☐ \$50 patron
- ☐ \$100 monophile
- ☐ \$500 monomaniac
- ☐ I cannot afford to contribute, but I'm willing
to write letters and I would like to receive
Action Alerts
- ☐ I'm interested in promoting local publicity

Mono Lake Committee
P. O. Box 2764
Oakland, CA 94602



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