



# CHINA LAKE ASSOCIATION

Newsletter

Spring 1992

## PRESIDENT'S LETTER

Dear Members and Friends,

As I complete my final term as President of the China Lake Association, I cannot help but feel that the Association is now poised to lead the Town of China to the fruition of the restoration of China Lake.

As Vice President, Dr. David Landry has been nominated to assume the leadership of President in the coming year. Dr. Landry comes to the Association with experience as President of the East Pond Lake Association.

Dr. David Preston, Ms. Loel Kline and Mr. Andre Boutin, along with the members of the Cost Share Committee and all of the members of the Board of Directors have committed, successfully, their energy to building a foundation for community-wide support for the restoration of China Lake. The positive response of the community is an inspiration for the Association to continue its efforts to educate and inform the public about water quality issues. At last count, 175 individuals and families have renewed their memberships or joined the Association since April of 1992. This affirms that the course charted by the Board of Directors of the Association is the correct one. Through education, there will be understanding and an

appreciation for the need to protect this delicate natural resource.

Although the federal Environmental Protection Agency has awarded the seed money (\$233,000.00) for an aluminum alum treatment for China Lake, these are matching funds only. It is common knowledge that the State of Maine is in the midst of a budget crisis, and environmental concerns are not at the top of the social agenda for the State Legislature. We, therefore, expect to receive little, if any, State matching funds. We need \$150,000.00 in matching funds for the alum treatment to go forward. The Board of Directors has voted to raise as much of the matching funds as possible from shoreline property owners directly. The cutbacks in the State budget, particularly with regard to education, have already placed an enormous burden on local taxpayers. Therefore, the Board of Directors feels that it makes sense that a substantial portion of the funding for the alum treatment come from those who will benefit the most from clean water -- shoreline property owners. There are 656 shoreline property owners and if each shoreline property owner contributed \$200.00, then the local matching funds will have been substantially accounted for. It is also very important for the community to understand that the Town of China is seeking funds for the alum treatment from the Kennebec Water District. The Water District will benefit financially from clean water as it will reduce the cost of treatment before drinking water reaches the ultimate users. We are optimistic that the Water

District will recognize this and will contribute accordingly.

There are many people who have helped me, indeed there are too many to thank here. I would, however, like to thank Gary Brown in particular. As Town Manager, he has contributed invaluable to the substantial progress our community has made towards the restoration of China Lake. Not only has he provided the Town with much needed funding through some creative grant writing, he also had the foresight and vision to propose a full-time Lake Restoration Coordinator. Through his efforts, we have received the valuable assistance of George Lord who, with his many years of experience in the environment field, along with his people skills, has given much needed guidance and direction which otherwise would have been learned in the costly process of trial and error.

I look forward to seeing all of you at the annual meeting of the Congress of Lake Associations on July 25, 1992, which will be held at the China Lake Conference Center. Come and help us celebrate our own community success story.

Steven T. Blackwell

**ANNUAL MEETING**  
China Lake Association  
Saturday, July 25, 5:30 p.m.  
China Lake Conference Center  
(following the COLA meeting)  
**MARK YOUR CALENDARS!**

**CONGRESS OF LAKE ASSOCIATIONS ANNUAL MEETING** is being held in China this year! This conference will feature speakers from around the region on various topics relating to lake preservation and restoration. Come join us Saturday, July 25, at the China Lake Conference Center. (Watch for details in upcoming mailings).

## ALUM ON THE WAY!

### \$233,000 Federal Grant Promised for China

At long last, federal funding for an alum treatment for China Lake has been tentatively approved. Though matching local funds still need to be raised, the State, in conjunction with the Town of China, hopes to undertake an alum treatment of China Lake in 1993, starting with the East Basins. With the planned treatment come many questions about alum: why do it?, is it safe?, and will it work?.

**Why alum?** For many years, phosphorus-rich runoff has drained into China Lake. A massive effort has been underway to decrease this phosphorus runoff. In large part, this effort has been successful, but despite this, there are still algae blooms. One of the major reasons is that over the years, phosphorus has accumulated in the deep sediments of the lake. Every year, this phosphorus recirculates into the lake water. Alum is an aluminum-containing compound that is applied to the deep basins of the lake, where it immediately settles to the bottom and combines with phosphorus in the sediments to prevent it from recirculating. Without sealing in these sediments, regardless of how much the water draining into China Lake is cleaned up, the algae blooms would probably continue, according to State Biologist, Roy Bouchard. Sealing of the phosphorus-rich deep water sediments is, therefore, the next logical step in the clean-up of China Lake. The Department of Environmental Protection, in a 1991 report, explored every other available alternative to alum and found them either ineffective or far too expensive.

**Is alum safe?** Before endorsing an alum treatment of China Lake, the Lake Association Board of Directors needed proof that there were no health risks. Dr. David Landry undertook a search of the world literature on this subject. His study concluded that alum poses no health problems. In the 1970's, there was a report proposing a link between aluminum and Alzheimer's Disease, but numerous other studies have not borne this out. People should be aware that alum is commonly used to purify drinking water at many water-purification plants throughout the world. Aluminum is present in many foods and medicines we ingest, in hundreds of times greater concentrations than in lake water after alum treatment (see box). Furthermore, because alum quickly binds to the bottom sediments, within 6 weeks of treatment, the aluminum content in lake water returns to pre-existing levels. For anyone having concerns regarding the safety of alum in China Lake, Dr. Landry would be happy to answer questions or provide a copy of his research paper, the conclusions of which were reviewed by the State Toxicologist and the National Alzheimer's Disease Research Institute.

**Will alum work?** Alum treatments have been done on several Maine lakes, with a marked improvement in water quality, notably Annabassacook Lake and nearby Three Mile Pond. Many lakes worldwide have been treated successfully. The lakeshore residents of Three Mile Pond, who paid for a significant part of their alum treatment in 1989, have been reaping the benefits of better water quality since then. The improvement in water clarity occurs within one season and typically lasts ten years. We are hoping that, with all the effort to reduce phosphorus runoff in our watershed, China Lake's water would remain clear far longer. How long alum will benefit China Lake depends on our determination to continue reducing phosphorus runoff. Alum is not a cure-all; we still need good land-use practices and erosion control, but alum treatment is necessary if we want to see a clear lake within our lifetime.

David Landry

## ALUM FACTS

**Quiz Question:** Which has more aluminum, one blueberry muffin or 20 gallons of China Lake water right after an alum treatment?

**Answer:** The blueberry muffin! It's estimated that aluminum levels in lake water after alum treatment would be raised from a baseline of .025 mg/quart to a maximum of .08 mg/quart. Compare that with one teaspoon of baking powder which has 80 mg of aluminum. Furthermore, DEP studies have shown that aluminum levels remain elevated in lake water for at most 6 weeks after treatment. A person would have to drink 1,000 quarts of water in those 6 weeks in order to consume the aluminum of a dozen muffins or pancakes!



1 dozen = 1,000 quarts

## LOON COUNT

According to the Maine Audubon Society, the official loon count on China Lake in July, 1991 yielded 41 adults and 4 chicks. China continues to be an important habitat for these beautiful birds. Boaters are reminded to look for, and avoid, the many loons in the water.



## EDUCATIONAL ACTIVITIES BLOSSOMING

The China Lake Association has recently committed new energy and resources toward public education, to increase awareness and knowledge of the environment. The Education Committee of the Association has been very busy planning and sponsoring a number of projects including the following:

### Aquatic Wild Workshop

This workshop, designed for teachers to help them incorporate environmental issues into the classroom, was held on May 22 at the China Primary School. Lisa Kane, a resident of South China and presenter for the Department of Inland Fisheries and Wildlife, geared the workshop specifically for the China Lake Region. Thirty-two teachers from the Primary and Middle Schools and five community members participated in this fun and informative day, in conjunction with China Lake Month.

### Environmental Resource Book

This book was compiled by the Education Committee using various articles from Inland Fisheries and Wildlife Magazine. The articles cover many subjects including fish, birds, mammals and reptiles, and are available to the public at the Middle School Library.

### Turtle Van

Wouldn't it be fun to learn about fresh water ecology through the eyes of a real turtle? Twelve classes, in grades K-3 at the China School, are having this experience beginning May 12 as part of China Lake Month. Thanks to sponsorship by the Lake Association, this new program from the Gulf of Maine Aquarium is providing children an up-close look of their aquatic surroundings.

### Kids for Saving Earth

The Lake Association is sponsoring Faye Teafon's second grade class in the environmental organization, Kids for Saving Earth. This group, started by a child just for kids, has gained world-wide recognition. It is a wonderful way to teach children their responsibilities as earth citizens.

### Summer Scholarships

The China Lake Association is paying for two students from the Middle School to attend summer camp at the Maine Conservation School. In order to qualify, students are asked to write an essay on an environmental theme, and the best will be awarded scholarships.

### Informational Signs

The Association applied for, and received, a grant to make two large informational signs, with maps of China Lake, to be located at the boat landings. The Youth Conservation Corps will put up the signs this summer, to enhance lake-users appreciation of the resource.

If anyone has questions about any of the above activities, please call Loel Kline, Chairperson of the Education Committee, at 968-2220.

Loel Kline & Bruce Daniels



The Lake Association is very proud of the work that Loel Kline and Bruce Daniels, among others, have done on the Education Committee. This kind of commitment is what makes our all-volunteer association so outstanding! Thank you Loel and Bruce!

Editor

### 1992 Membership Drive Nets Record Numbers

We wish to thank all of you who generously responded to our membership mailing in March. Over 170 individuals and families either renewed or joined the Lake Association, for a new annual record!

Members should know that since the Association is an all-volunteer organization, 100% of your contributions goes to projects to benefit the lake, education, and other mailings. For those of you who still need to renew or would like to join, please use the membership form at the right. Thanks again!

### MEMBERSHIP FORM China Lake Association

P.O. Box 215  
China, Maine 04926

*Please include names of all adults who wish to be members*

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

City/ST/Zip \_\_\_\_\_

Phone \_\_\_\_\_

Annual Family Membership \$20 ☐

If you are able to give more:

Friend \$30 ☐

Patron \$50 ☐

Sponsor \$100 ☐

Benefactor \$500 or more \$ \_\_\_\_\_ ☐

Make check payable to:

China Lake Association

Thank You!



## NEW LAND-USE ORDINANCE PASSES!

On May 30, the people of China voted at Town Meeting to approve new changes in the land-use ordinance. The vote was overwhelmingly in favor, with little or no discussion. The new regulations are the result of a compromise, arrived at in several hearings held by the Planning Board, in order to comply with state guidelines. The State has given towns in Maine until July 1 to adopt shoreland zoning ordinances that comply with mandatory minimums, as outlined by the DEP.

The ordinance defines three areas with special zoning laws: the shoreland district, the resource protection district, and the stream protection district. The major changes in the shoreland zone are:

1. Increase the required setback from the shore for conforming (new) structures from 75 ft. to 100 ft., measured horizontally from the high-water mark.

2. Increase the minimum lot coverage (the percent of a lot that can be covered by a structure) from 12 to 15 percent, not including impervious surfaces such as roads or driveways.

3. Increase the minimum

shore frontage for new lots from 100 to 200 feet.

4. Minimum lot size is still 40,000 square feet.

In the stream protection district (adjacent to streams) new lots need 200 feet of stream frontage with a minimum setback of 75 feet for all structures. The resource protection district includes areas within 250 feet of a significant wetland, as defined by the Department of Inland Fisheries and Wildlife. Lot coverage in each of these two districts is also limited to 15%. Timber harvesting in the shoreland, stream and resource protection districts must also be in compliance with state guidelines listed in the new ordinance.

The fourth district in China, the rural district, includes all the land not in the other districts. In the rural district, maximum lot coverage will be 20%, not including impervious surfaces.

Sign size, which apparently was an issue which helped defeat the last set of proposed ordinances, has been changed. Name signs (identifying a business) are allowed up to 20 feet in height. Signs advertising

goods sold on the premises are to be increased from 6 to a maximum of 24 square feet.

If this ordinance had not passed, then the State DEP would have imposed its own regulations for the shoreland, stream and resource protection districts, which in some cases would have been more stringent. The new town ordinance still must be approved by the State before it takes effect; some modifications of the rules may still be required by the State, according to George Lord, the Lake Restoration Coordinator.

David Preston

### EROSION PROBLEM? COST-SHARE FUNDS AVAILABLE

This summer, as in the past two years, the Youth Conservation Corps will be working around the lake identifying and fixing erosion problems and other sources of phosphate pollution. Funds are still available to share the cost for lakeshore landowners wanting to do rip-rapping or other erosion control projects. Take advantage of this money-saving service while it's still available by calling George Lord, China's Lake Restoration Coordinator, at 445-2014.

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China, ME 04926  
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Vice-President - David Landry  
Treasurer - Andre Boutin  
Secretary - David Preston

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