

Eagles making a comeback in the Tahoe Basin, page 14

Summer 2013

# TAHOE IN DEPTH

*Protecting, Enjoying & Exploring the Lake Tahoe Basin*

## Emerald Bay winning weed battle

*Biologists working to keep Tahoe iconic feature free of invading plants, fish and mollusks*

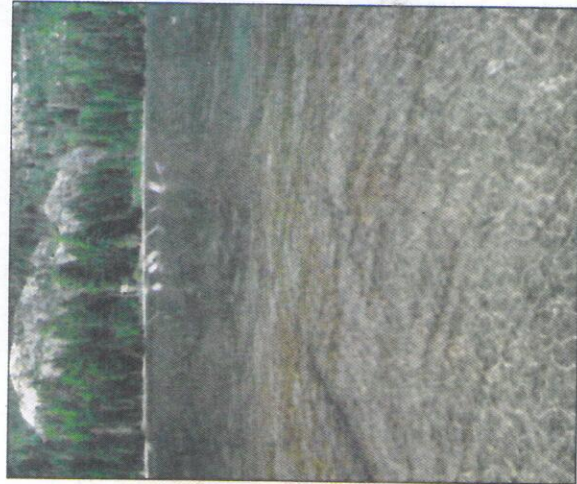
By Patrick Stone

TAHOE REGIONAL PLANNING AGENCY

Emerald Bay is one of the most photographed and recognized features of the Lake Tahoe Basin. Its emerald waters reflect the surrounding granitic walls as they fall away from Phipps Peak and the Eagle Lake area.

But these reflections also hide aquatic invaders who threaten the environment in Emerald Bay State Park. Aquatic invaders such as Eurasian watermilfoil, Asian clam and brown bullhead catfish have already established in Lake Tahoe, sneaking into Emerald Bay prior to mandatory watercraft inspections and decontaminations.

Visitors may not always recognize the invasive plants and animals while hiking or boating at Lake Tahoe, but the unwanted guests have not gone unnoticed. Since 2009, Emerald Bay State Park biologists and several partner agencies have attacked the invasive plants, which have appeared at the



A team of divers (left) prepares to tackle an infestation of Eurasian watermilfoil in 2009. By 2012, the site (right) was nearly free of the invasive weed.

swim beach at Vikingsholm, Parson's Rock and Avalanche Beach along the southwest shoreline of Emerald Bay.

The first year of invasive plant removal included testing several different methods and a lot of work

Continued on page 11

### TMDL program focuses on restoring Lake clarity

By Jason Kuchnicki

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

and Robert Larsen

LAHONTAN WATER BOARD

Since scientists first started measuring it in the late 1960s, Lake Tahoe's clarity has been steadily declining. At first, researchers lowering a white plate into the water could see the object more than 100 feet deep.

Last year, the clarity was 75 feet. It hasn't been better than 80 feet since the late 1980s. Anyone looking at a graph of the shrinking numbers may think 100 feet is a thing of the past, up there with vast herds of buffalo roaming the Great Plains, or gas selling for 25 cents a gallon.

Continued on page 3

# Emerald Bay nearly weed-free

*Research to identify ways to control mollusks, invading fish*

Continued from page 1

with help from the state of California, the U.S. Bureau of Reclamation, the U.S. Fish & Wildlife Service, the Tahoe Resource Conservation District and the Tahoe Regional Planning Agency.

The team refined its methods, hired and trained professional divers, and ramped up plant removal efforts to clear more and more of the Lake bottom each year. Divers pulled plants by hand and placed light-blocking barriers on the Lake bottom to restrict growth and kill plants.

Biologists now survey the plant infestations each year before and after the plants are treated. In 2012, the team reported a 99 percent reduction of plants in two sites and 70 percent reduction in the most laborious work site -- the Avalanche Beach area.

Future aquatic weed removal efforts will continue to reduce the infestation at Avalanche Beach and will maintain the Vikingsholm and Parson's Rock areas to prevent regrowth or recolonization of plants.

Emerald Bay State Park and its partners are winning the battle but the war is far from over. According to Steve Chilton, U.S. Fish & Wildlife Service's aquatic nuisance species coordinator for the Tahoe Region, the war on invasive species needs the support of everyone who lives or visits Lake Tahoe or represents the Lake in our state legislatures.

Research efforts are under way to determine the best tools available for controlling invasive mollusks, such as Asian clam, and warm-water fish, like brown bullhead or small-mouth bass. The Lake Tahoe Regional Aquatic Invasive Species Program will use the results of these and other research projects to improve the Tahoe Basin's ability to detect, control and prevent aquatic invaders.

One of the most effective ways to prevent the introduction and spread of invasive species at Lake Tahoe is to clean, drain and dry any boats or kayaks before they are launched. This is particularly important if the boat has been launched in another lake or waterway because

it may have picked up an unwanted hitchhiker in the form of an exotic weed or mollusk.

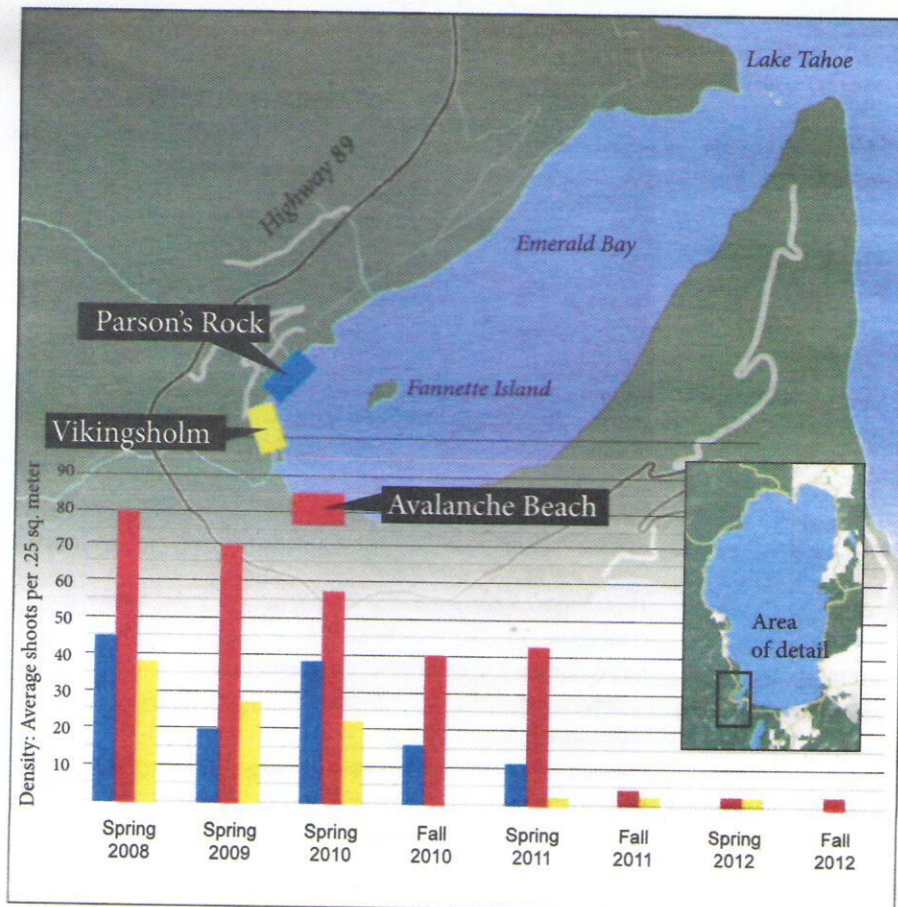
"We learned how to recycle, how to buckle up, and even how to buy the right outboard engines," said Dan Shaw, Emerald Bay State Park biologist. "We can learn how to clean, drain and dry

our boats and we can learn how to stop invasive plants or animals instead of helping them get around."

"If Lake Tahoe boaters, residents and visitors can continue to score wins on the front line by eliminating existing plant infestations, we can defeat Eurasian watermilfoil in Emerald Bay."



A diver deploys light-blocking barriers over aquatic weeds in Emerald Bay.



Carrie

FIRS

Vol  
hel

Last  
a pro  
Regio  
Leag  
(Blue)  
and  
sever

The t  
sumn  
weed  
the p  
pond:  
had fr  
bullfr

There  
Sarat  
who e  
weed  
the L  
tarps

It was  
memo  
exper  
these  
togeth  
prese  
projec  
meet  
whom

As a  
the ev  
They  
time,  
I look  
volunt  
Tahoe

Carrie  
Incline