

# UV light may be invasive weed killer at Tahoe



John J. Paoluccio uses weeds from Lake Tahoe to test his UV mechanism. Photos/Provided

**By Kathryn Reed**

Ultraviolet light might be the answer to ridding Lake Tahoe of milfoil and other invasive weeds.

In controlled lab tests the box like device has been effective at killing various weeds that are not native to Tahoe and that have become a problem.

John J. Paoluccio, president of Inventive Resources Inc., is presenting his mechanism this morning to the Near Shore Agency Working Group at a meeting on the South Shore. Regulatory agencies will be there as well as scientists from UNR and UC

Davis.

“TRPA is certainly open to looking at any and all potential approaches to fighting AIS at Lake Tahoe, but we will also look to our colleagues in the science and research community for their expert guidance to determine what tools will be the most effective on a location-by-location basis,” Tom Lotshaw with Tahoe Regional Planning Agency told *Lake Tahoe News*.

Paoluccio has used Lake Tahoe water and five species of plants from here to test his apparatus in his lab in the Central Valley. He’s been able to kill weeds at a depth of 30 feet.

“This technique can be turned on and off,” Paoluccio told *Lake Tahoe News*. “Herbicides are like a bowl. They will not be forgiving, especially if there is an accident.”

His firm’s main focus is water treatment devices, some of which are being used in the basin.

Paoluccio is hoping regulatory agencies will allow him to test his product before any chemicals are used in the lake. Lahontan Regional Water Quality Control Board has OK’d the use of herbicides in Lake Tahoe on a case-by-case basis.



Ultraviolet is John J. Paoluccio’s answer to eradicating invasive plants from Lake

Tahoe. Photo/Provided

The Tahoe Keys Property Association spent a quarter million dollars to study **long-term eradication plans**. Part of the plan includes chemicals. Today TKPOA spends about \$400,000 a year on a harvester that in part spreads the milfoil through the channels of the South Lake Tahoe neighborhood, never really doing anything more than mowing the spindly weed.

When the Keys did its study Paoluccio's technique was not part of the mix because it wasn't available.

However, Paoluccio has been working with ultraviolet light for about 10 years. His first creation was to use the light in caves to kill microorganisms that were degrading the rocks.

He then saw the Keys' harvester and figured there had to be a better way to do things in Tahoe. This led to the start of his experiment. As a second homeowner in Tahoe, the interest is also personal.

Paoluccio, who is a Lakeside Water District customer, has seen the milfoil choke that marina, just not to the extent of the Keys.

Lakeside Water District, which has 150 customers near the state line in South Lake Tahoe, is concerned any chemical application at the Keys would negatively impact its water supply. All of Lakeside's water is drawn from the lake.

"What we are trying to do is slow down, if not stop permanently, the effort that is going on at the Keys to use herbicides," Andy Engelhardt, vice president of Lakeside Park Association, told *Lake Tahoe News*. His group wants to be the test site for Paoluccio's creation.

Paoluccio said to treat Lakeside Marina with his device it would take about 30 days, 10 hours a day.

The light damages the DNA and cell structure of the aquatic invasive weeds. This stops reproduction and eliminates the weed in a few days.

“The UV light is basically burning the plants,” Paoluccio said.

A patent on the mechanism is pending.

It can be applied either by dropping a box like device that resembles how an umbrella works over the infested area or using a mat. The latter would be good to reach under docks.

Paoluccio said noise could be used to deter fish from that area so the light would not affect them. With the shield over the light, it would not be reaching beyond the designated area.

Before a pilot project were to be implemented Paoluccio said he would need to secure funding to build the appropriate mechanism.