

# Engineer claims facts about Lake Tahoe are wrong

By Linda Fine Conaboy

Author, professional speaker, civil and environmental engineer and self-proclaimed myth buster, David Antonucci says he just wants to set the record straight about, as he puts it, the widely repeated fibs, fakes and falsehoods surrounding Lake Tahoe.

In a recent interview with *Lake Tahoe News*, Antonucci said, "We spend hundreds of millions of dollars protecting Lake Tahoe and heavily regulate the built environment. We should at least have our basic facts about Lake Tahoe correct."

And what, you ask, are these falsehoods? According to excerpts from his blog, Antonucci states that instead of 72 miles of shoreline, the lake is really 75.1 miles in circumference. The distance from north to south is in actuality 21.2 miles instead of the purported 22, and the width is 11.9 miles, which is close to the often-quoted 12 miles.



Facts about Lake Tahoe are being questioned.

What initially generated his suspicions was the frequently cited 72 miles of shoreline.

"I knew it could not be true because the encircling highways total 71.8 miles and the highways shortcut the major points jutting out into Lake Tahoe."

He said he used his knowledge of Lake Tahoe, going back to his studies in environmental engineering at graduate school in 1972, to judge whether a fact seemed reasonable or not.

"I did my project for my master's degree on Lake Tahoe water pollution control facilities," he said. "These corrected scientific facts are based on my professional opinion as a civil and environmental engineer with a total of 37-years experience, including 36 at Lake Tahoe."

Antonucci said he measured the length, width and circumference himself using U.S. Geological Service mapping.

"I got the shoreline length from the TRPA Shorezone Plan – they measured it directly – and I compared that to the USGS mapping for agreement. I spoke with UC Davis Lake Tahoe researchers on various issues. Most of my information comes directly or indirectly from research performed by UC Davis and others."

Antonucci said he compared the cited facts to various credible sources and used his professional judgment to determine the truth for himself using his skills as an engineer.

"The initial problem was inexperienced people who went to various sources such as the book 'Saga of Lake Tahoe', but they got wrong information," he said. "It got much worse with the advent of the Internet because people with no science or media training and no critical thinking skills were doing websites. They simply lifted the wrong information from another website and then mindlessly repeated the misinformation with reckless unrestraint over a modern-day digital path paved with laziness, naivety and fallacy."

Not only is Antonucci at odds with the lake's dimensions, he

also takes aim at the reasons for its astonishing palette of blue and green. We all know Lake Tahoe is a mirror, reflecting the ebbs and flows of the sky, right? Wrong. While it is widely believed that the lake's brilliant colors are a result of the sky's reflection on the water, Antonucci says not so.



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“The blue color is from the backscatter of blue light that penetrates the lake and overwhelms any reflection that may be occurring,” Antonucci said. “However, when the sun angle is flat and obscured by clouds, the lake surface can reflect the sky. I have seen orange and pink reflections, but the important point is that the famous blue color is not from the blue sky but from backscatter of blue light.”

Heather Segale, education and outreach director for UC Davis Tahoe Environmental Research Center located on the Incline Village campus of Sierra Nevada College said the dimensions of the lake may be splitting hairs, but she agreed with Antonucci about the color, which she said has everything to do with the important matter of Lake Tahoe’s clarity.

“There is definitely a bunch of stuff out there that’s not true,” she said. “Some of the sites that have wrong facts are various chambers of commerce and the USGS has some incorrect

info too.

“The most important fact that is incorrect is the explanation why the lake is blue,” Segale said. “It has to do with clarity, sediment and the algae in the water. Because there’s so much emphasis on keeping Tahoe blue, people need to understand it’s a function of the clarity and not the reflection of the sky. Otherwise all lakes would be blue like the sky, and they’re not.”

Unlike Segale, though, there are those who may not be as passionate about setting the facts straight as Antonucci.

Lake Tahoe weather historian, author and professional speaker, Mark McLaughlin said he thinks Antonucci may be too concerned about fairly minor matters, although he has not looked into the assertions and said he can’t comment on their veracity.

McLaughlin has his own bucket list of incorrect facts, such as the claim that the region receives 300 days of sunshine a year or that Jacques Cousteau explored Tahoe in a submersible, perhaps both subjects of another article.

Jeff Cowan, community liaison for TRPA has known Antonucci for a number of years and said he holds him in high regard.

“I think David’s claim is a delightful addition to the lore and mystery of Lake Tahoe,” he said. “We would defer to the USGS and U.S. Army Corps of Engineers for the official dimensions, but I don’t think changing Tahoe’s measurements could ever change how awe-inspiring this place can be.”

Chiming in, too, is Cheva Heck, public affairs officer for the U.S. Forest Service Lake Tahoe Basin Management Unit. She says her agency uses USGS as its last word on matters pertaining to Lake Tahoe. When asked about the interpretative signs around the lake and what it would mean as far as changing them to reflect potentially incorrect information, Heck said should that happen the signs would be corrected as they’re due for

replacement.

“The signs are costly,” she said. “We’d want to be sure of the official numbers, but we’d change the numbers on the signs as they’re replaced.”

With a plethora of credentials to his credit (Antonucci has undergraduate and graduate degrees from Cal Poly and Oregon State; is qualified as an expert on Lake Tahoe water quality in various courts in Nevada and California; spent several years on the Lahontan Regional Water Quality Board; served as the general manager and chief engineer of the Tahoe City Public Utility District, and more), he sticks to his guns when it comes to setting the record straight about Lake Tahoe’s basic facts.

And he’s serious about getting the word out. He developed his website, [www.tahoefacts.com](http://www.tahoefacts.com), wrote a booklet about Lake Tahoe entitled “Natural World of Lake Tahoe”, hands out his Tahoe Facts summary sheet when and where he can and gives free lectures to local, nonprofit groups.

“I think most people agree (with me) when presented with all the facts and an understandable explanation,” he said. “Most people don’t have a strong scientific background, so they rely on experts to interpret and make it understandable.”

For now, Antonucci will continue his quest to officially make what he believes are necessary changes to correct the record.

“I’m a myth buster at heart,” he said. “I like to use science to solve mysteries and debunk myths.”