



THE CRYSTAL LAKE WATERSHED

The Value of A Lake Association?!

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Values of a Lake Association.



- Definitions (Upfront).
- Philosophies (Interspersed).
- Perceptions & Realities (Asides).
- Crystal Lake Watershed (Description).
- Crystal Lake & Watershed Association (CLWA) (A Case History).



A Watershed Association is ...



- An organization within a watershed;
- Sharing of common economical and environmental concerns;
- Ranking of local priorities; and
- Developing sustainable responses.



Values of a Lake Association.



-
- Partnerships.
 - Awareness.
 - Communication.
 - Fund raising.
 - Grants.
 - Watershed management.
 - Skill focus.
 - Group effort.
 - Resources.
 - Information.
 - Education.
 - Monitoring.
 - History.
 - Network.



Lake Associations - A Poll.



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- How many belong?
 - How many don't belong?
 - Lakies, townies, and/or fudgies?
 - Is everyone rowing the boat in the same direction?





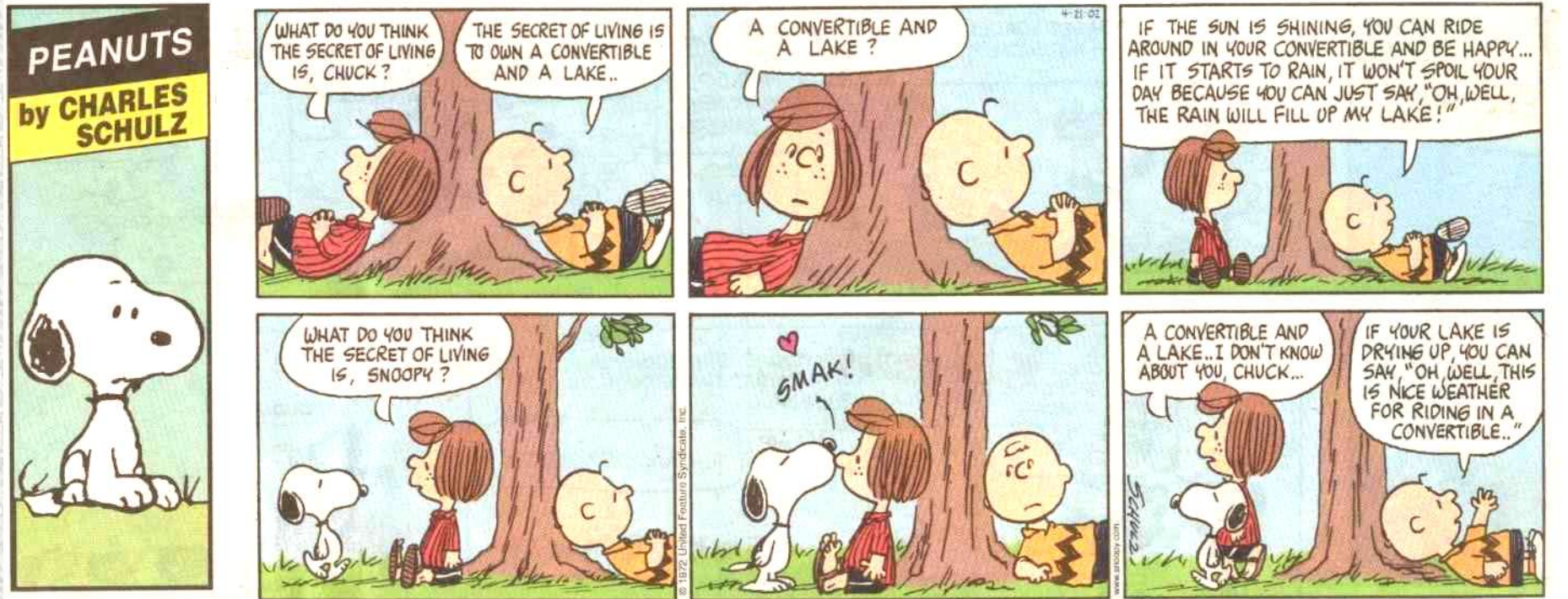
What is a Lake?

“A lake is the landscape's most beautiful and expressive feature. It is earth's eye; looking into which the beholder measures the depth of his own nature.”

**- - Henry David Thoreau,
from the chapter "The Ponds" in *Walden*.**



The Secret of Living on a Lake.



Hi There from Crystal Lake!



Earth from Apollo 17
June 22, 1966



Crystal Lake – Satellite View.





How Big Is Crystal Lake?

If Crystal Lake was spread evenly over Benzie County, it would cover the land to a depth of 3'-8", or just about head-high for an average five-year-old !!!

One inch at the surface of Crystal Lake is the equivalent of a faucet flowing at 10 gallons per minute for 51 years !!!

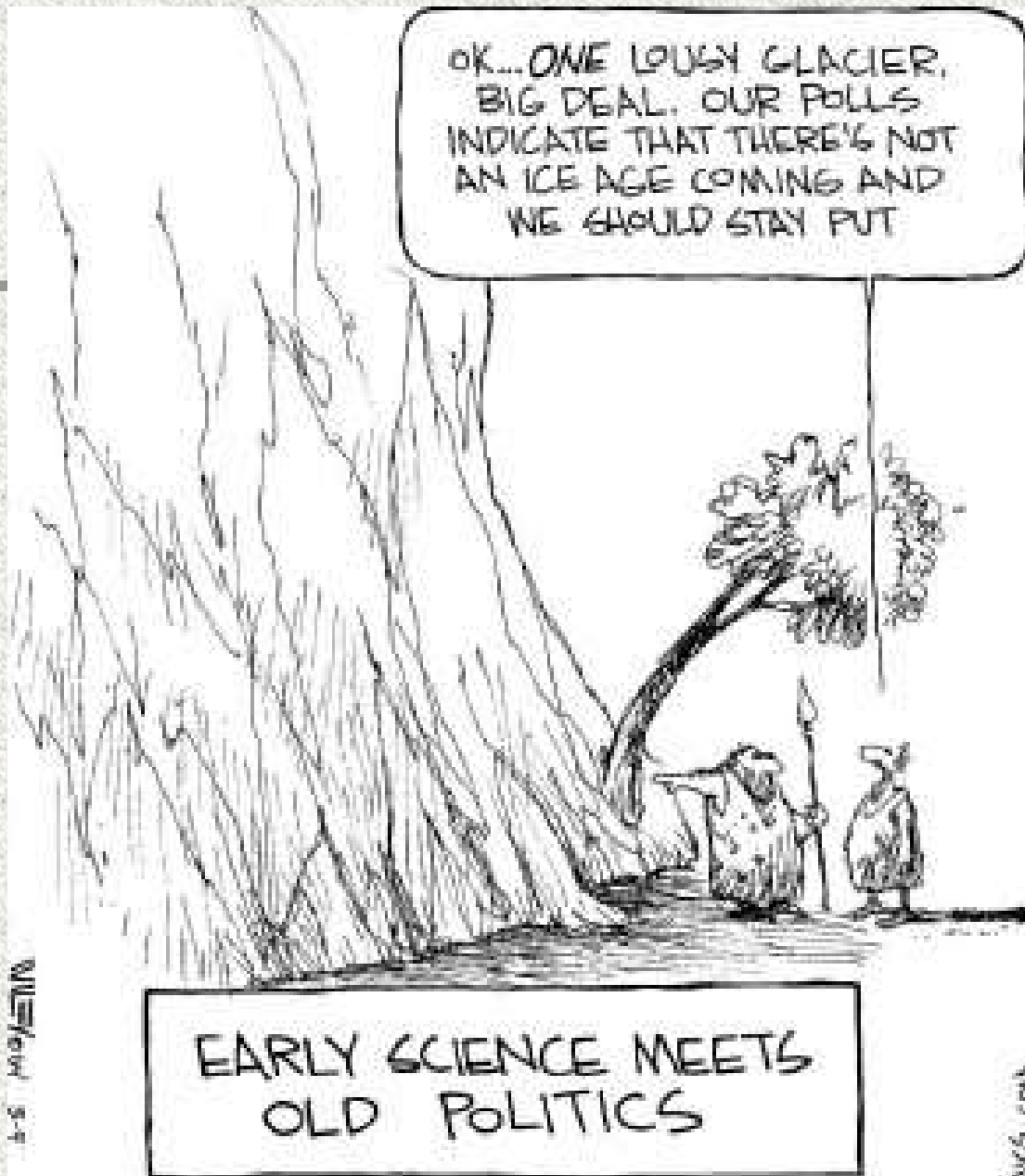




Heraclitus (480 BC).

- “You can’t step in the same water twice.”
- “It is better to hide ignorance, but it is hard to do this when we relax over wine.”





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Lake Chargoggagoggmanchaugga-
goggchaubunagungamaugg (*).



**(*) You Fish on Your Side;
I Fish on My Side;
Nobody Fish in the Middle.**

**(Webster Lake, MA. Three spring-fed lakes
inter-connected by narrow channels.)**



Batten down before a storm!



Don't think you're unsinkable!



© British Railways Board 1988

R.M.S. TITANIC

Departure into History

John Venn R.S.M.A.



Don't give up the ship!



Ignore distractions!



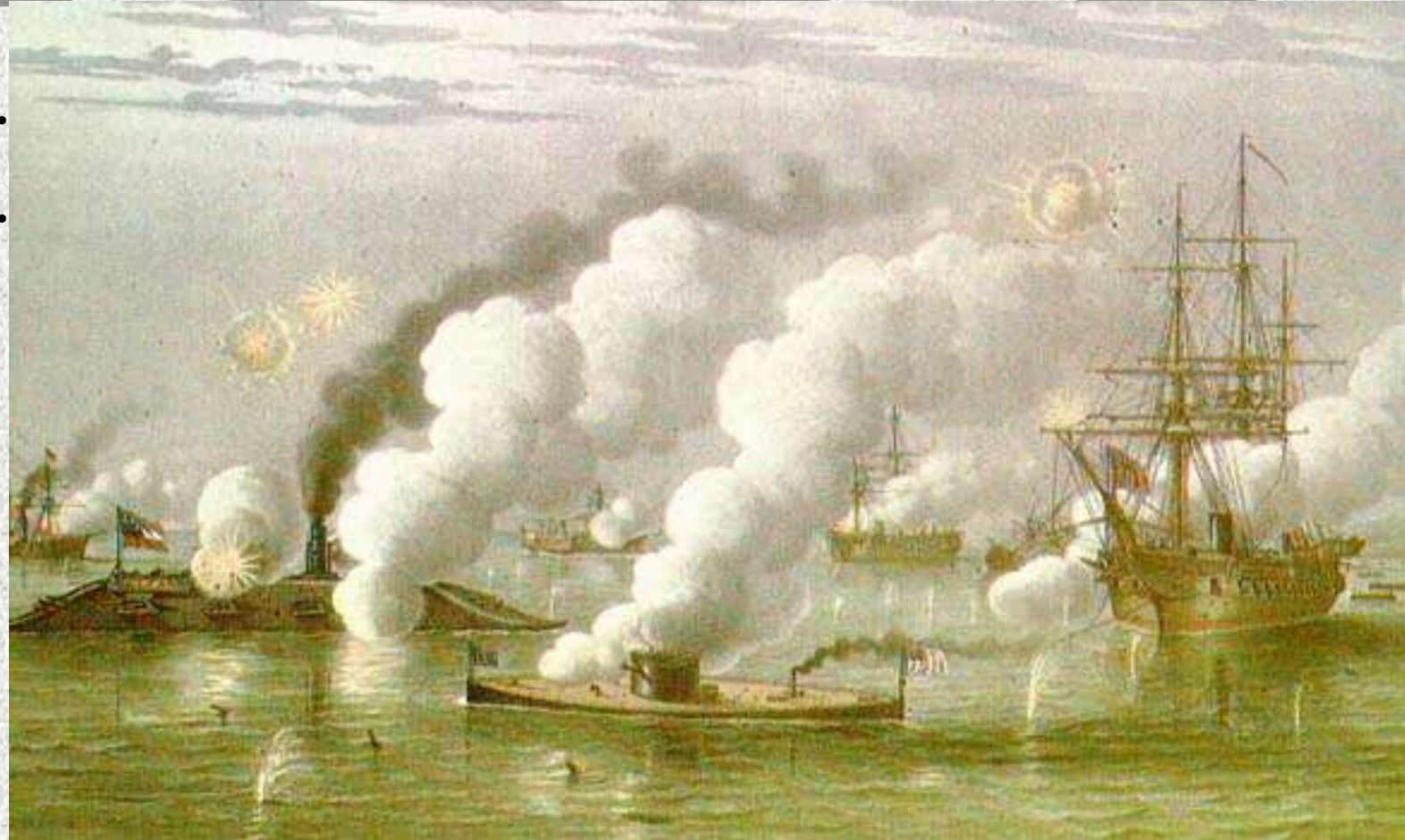
Stay on the Right Track!



Brave the crossing!



Avoid Civil War!



Crystal Lake – Associations



Crystal Lake Watershed Fund (CLWF)

+

Crystal Lake Association (CLA)

=

**Crystal Lake & Watershed Association
(CLWA)!**



Present & Future Concerns.



- Planning & Zoning.
- Development.
- Land Use
- Water Access.
- Land Cover/Viewshed.
- Critical Slopes/Wetlands.
- Septic Systems.
- Greenbelts.
- Boating/Swimming.
- Litter.
- Other Social Challenges.
- Water Quality
- Erosion & Shoreline.
- Sediment Runoff.
- Eutrophication.
- Pesticides.
- Algae, Bacteria, Molds.
- Nonindigenous Species.
- Fish & Wildlife.
- Litter.
- Aesthetics & Noise.
- Ozone Nonattainment.





CLWA Committees.

- Executive.
- Education & Communications.
- Water Quality.
- Zoning & Land Use.
- Financial Development.
- Ad hoc Committees.



Education & Communications.



- Educational Programs (*“Walkabout”*).
- Newsletter (*“Crystal Whitecaps”*).
- Website (www.CLWA.us)
- Reports.
- Handbooks.
- White Papers.



Crystal Lake “Walkabout”.



- An innovative program to instil and nurture in young people and the public a sense of awareness of their watershed environment through interactive science education with “hands-on” observational monitoring and environmental exploring.
- Participants *“walk about”* environmentally significant sites and participate in activities led by professional site interpreters.





Water Quality.

- Chemical – nutrients, dissolved oxygen.
- Physical – water clarity, water level.
- Biological – bacteria, plankton, invertebrates, aquatic plants, exotic species.
- Crystal Lake & contiguous watersheds.
200+ studies (1820 – 2005)





Zoning & Land Use.

- Septic Systems & Alternatives (BLDHD).
- Public Boat Launch (MDNR).
- M-22 Highway Improvement (MDOT).
- Scenic (Benzie) Corridor (SBDNL).
- Key-Hole Development (CLOD).



In Conclusion:



“Perfect sincerity and transparency make a great part of beauty, as in dewdrops, lakes, and diamonds.”

-- Henry David Thoreau.

From the *Journal* (June 20, 1840).





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