



PONDerings®

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of **AQUA DOC®**

BIG or Small... your water is IMPORTANT TO US ALL!



Photos courtesy of Syngenta

How much water is on Earth?

The picture below shows various blue spheres representing relative amounts of Earth's water in comparison to the size of the Earth. Are you surprised that these water spheres look so small? They are only small in relation to the size of the Earth! These images attempt to show three dimensions, so each sphere represents "volume".

Spheres representing all of Earth's water, Earth's liquid fresh water, and water in lakes and rivers:

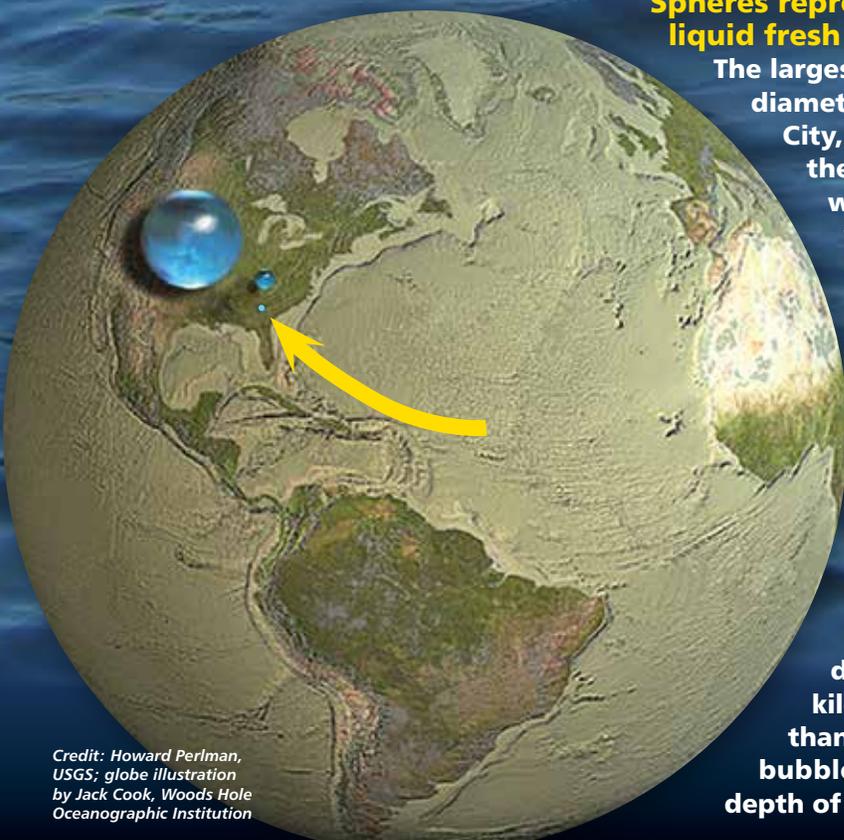
The largest sphere represents all of Earth's water, and its diameter is about 860 miles (the distance from Salt Lake City, Utah, to Topeka, Kansas). The sphere includes all the water in the oceans, ice caps, lakes and rivers, as well as groundwater, atmospheric water, and even water in you, your dog and your tomato plant.

Liquid fresh water

The blue sphere over Kentucky represents the world's liquid fresh water (groundwater, lakes, swamp water, and rivers.) 99% is groundwater, much of which is not accessible to humans.

Water in lakes and rivers

Do you notice that "tiny" bubble over Atlanta, Georgia? That one represents fresh water in all the lakes and rivers on the planet, and most of the water people and life of earth need every day comes from these surface water sources. The diameter of this sphere is about 34.9 miles (56.2 kilometers). Yes, Lake Michigan looks way bigger than this sphere, but you have to try to imagine a bubble almost 35 miles high-whereas the average depth of Lake Michigan is less than 300 feet. (91 meters).



Credit: Howard Perlman, USGS; globe illustration by Jack Cook, Woods Hole Oceanographic Institution

What Is The Trophic Status Of Your Pond?

Josh Hehmeyer

The word trophic is derived from the Greek term "trōphikōs" which pertains to food or nutrition. Trophic states of water are based on nutrient levels and ability of the water to grow plants and algae. To a large degree, soils help determine surrounding waters' nutrient levels. Your pond or lake is a product of its watershed. (The area of land that drains into your lake). Regardless of location every body of water will fit into one of four basic trophic states.

Oligotrophic - Minimal to no nutrients, can sustain only small amount of life.

Mesotrophic - Small amounts of nutrients, ie; Phosphorus and Nitrogen

Eutrophic - Nutrient rich, abundant plant and animal life.

Hypereutrophic - Nutrient excessive, high potential for nuisance weed, algal growth, wildlife species decline.

A correct and consistent management plan is critical for the short and long term health of your water. A good plan manages proactively for the long run while quick reactive strategies many times will simply not be effective. What is the trophic status of your pond?

Lose the Weeds...

Not the Wildlife!

When Choosing a Lake Management Company...

- Are personnel licensed?
- Does the firm utilize only E.P.A. approved aquatic materials?
- Is the company properly insured?
- What is the experience level of the company? How long has the firm been in the aquatics industry?
- What are application methods and what equipment will be utilized?
- Is a management plan for your water communicated so that you understand it?

AQUA DOC® provides these OUTSTANDING SERVICES



Lake Study Consultation



Lake Aeration Installation & Maintenance



New Lake Design and Construction



Fish Stocking



Algae and Aquatic Weed Control



Fountain Installation and Repair



Shoreline Renovation

AQUA DOC® THE PERFECT PRESCRIPTION **R_x** FOR PROBLEM PONDS!



BEFORE MANAGEMENT



AFTER MANAGEMENT

All effective lake management plans begin with a correct and accurate assessment.

Your pond's shape, size and depths are just the beginning. An understanding of the watershed and flow rates can help determine nutrient availability and possible contamination.

Of utmost importance is "an experienced set of eyes" that will positively identify problem algae and weed species. This assessment then evolves into a management plan specific to that body of water. A plan may consist of short term strategies combined

with long term solutions. As it is with choosing the best medical doctor for a health issue, so it is with lake management and your waters.

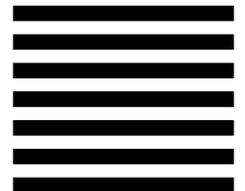
AQUA DOC's knowledge and experience acquired with 32 years managing waters really makes a difference. Correct identification of problems and planning effective management tactics and strategies is what sets AQUA DOC apart. As Stewards of an environment we all share, the AQUA DOC team is second to none.

For all your **Pond Supplies**,
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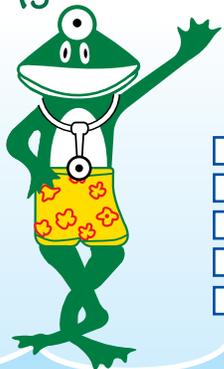
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got algae?



If you have a Lake or Pond **PROBLEM...** Aqua Doc has the **SOLUTION!**



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Please schedule my FREE lake/pond consultation!

- | | |
|---|---|
| <input type="checkbox"/> Algae or weed control | <input type="checkbox"/> Fish Stocking |
| <input type="checkbox"/> Lake Studies | <input type="checkbox"/> Docks |
| <input type="checkbox"/> Floating Fountains | <input type="checkbox"/> Waterscape Design / Installation |
| <input type="checkbox"/> Lake/Pond Aeration System | <input type="checkbox"/> Renovation New or Existing Pond |
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