

Hello Neighbor:

As spring begins to bring us summer, more and more people are returning to the Geneva Lake area. Landscaping, lawn care and general house cleaning are taking place throughout the watershed. Please follow the directions while using fertilizers, weed killers, cleaners and pest control chemicals. This is especially important when applying such products to yards that are on sandy or wet soils. Excessive application doesn't necessary mean better results, but it could mean groundwater contamination.

Be careful not to dispose of waste cleaners and chemicals into your septic system. They may impact the system's biological workings that help breakdown the waste. Some chemicals may move through the septic tank and soil absorption system and enter the groundwater. Remember that groundwater is the source of our drinking water.

As you purchase fertilizers for your lawn remember that state legislation prohibits the use of phosphorus fertilizers for residential lawns except for very specific conditions.

2011 Timeline of Groundwater I & E Program

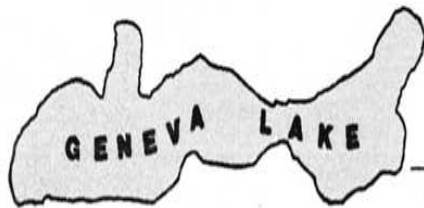
- **June**..... Third information sheet mailing.
- **July**.....Fourth information sheet mailing.
- **Late July**....1st mailing of well testing info. Meeting on well testing. Pick up bottles. Well water sampling and testing.
- **August**..... Meeting and mailing on test results. Fifth information sheet mailing.

If you're interested in receiving an electronic copy of this newsletter please complete the following and send it to: GLEA,P.O. Box 914 Williams Bay, WI 53191 or email us at glea@genevaonline.com

Name: _____

Address: _____

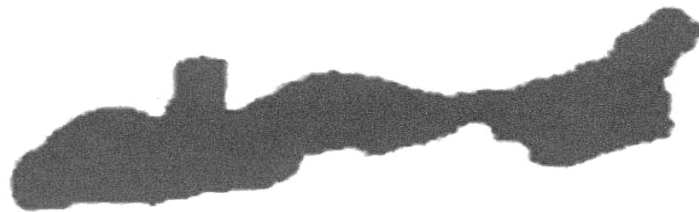
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LINN SANITARY DISTRICT

P.O. BOX 454 • LAKE GENEVA, WI 53147 • 262-245-4532

This Groundwater Information, Education and Well Testing Program is brought to you and funded by the Linn Sanitary District and the Geneva Lake Environmental Agency.



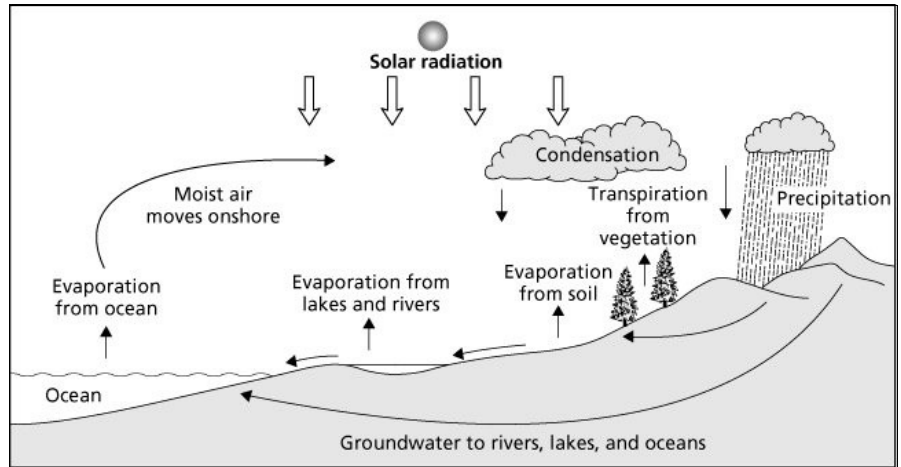
Geneva Lake Environmental Agency

Village of Fontana • City of Lake Geneva • Town of Linn
Town of Walworth • Village of Williams Bay

GROUNDWATER AND WHY IT IS IMPORTANT IN THE GENEVA LAKE AREA - 3

Without water, earth as we know it would not exist nor would it be populated by what we know to be humans. Our earth is shaped by water. Our civilization was founded in the presence of water. It is what makes this third rock from the sun that we call earth habitable. Many a past civilization has survived or perished because of how they treated their water.

The **water cycle** portrays the movement of water on earth. It is driven by the sun and is impacted by the actions of man in many ways. In simple terms the water cycle is the falling of water from the sky, (precipitation) soaking into the ground (infiltration) or flowing over the land (runoff) to a lake or ocean. It then evaporates back into the sky forming clouds (condensation) until it rains starting the process over again.



Although 71% of the blue planet, earth, is covered with water, only 3% of that water is fresh water. Of the fresh water on earth, 30% of it is in the ground. The USGS estimates that groundwater represent 99% of the usable water on the planet earth. The remaining 1% is found in lakes, streams or atmosphere.

Between 50% and 70% of our bodies are water. Scientists have estimated that the residency time for water in our body is about 14 days. Thus, for us to survive in a healthy state we need to replace our body water regularly. To do so we need a clean dependable supply of **potable** water.

Seventy percent of Wisconsinites use groundwater for their water supply. In Walworth County that number is even higher. In fact, in the Geneva Lake area, other than bottled water and a few unique situations, all residents get their drinking water from the ground.

Scientists estimate that globally groundwater has an average retention time of 600 years compared to the 9 years for atmospheric water and 6.5 years for lakes and streams. This means that water and whatever is in it takes a long time to move from its point of **recharge** to a **discharge** point. This is an important consideration in groundwater management.

Groundwater is especially important for Geneva Lake's water supply. A recent study by the Wisconsin Geological and Natural History Survey and the Geneva Lake Environmental Agency found that groundwater supplies a significant portion of the annual water that enters Geneva Lake. This groundwater enters Geneva Lake from springs, seepages, streams, and direct **discharge** into the lake. Most of the direct **discharge** to the lake takes place in the shallow shoreline area around the lake. The exception to this is on the extreme northeast end of the lake where the lake **recharges** the groundwater. It has been calculated that although Geneva Lake receives about 36% of its water from groundwater **discharge**, it annually losses only about 1% of its water back to the groundwater through **groundwater recharge**.

Glossary of Terms

Aquifer: An area in the ground where all open air spaces between the soil and rocks particles are filled with water.

Discharge area: An area where an aquifer comes to the ground's surface as a spring, creek or seepage.

Groundwater: Water that is found in the spaces or void between rocks and soil particles.

Potable Water: Water that is suitable for drinking.

Recharge : The process of an aquifer receiving water from the surface.

Water Cycle: The movement of water on earth.

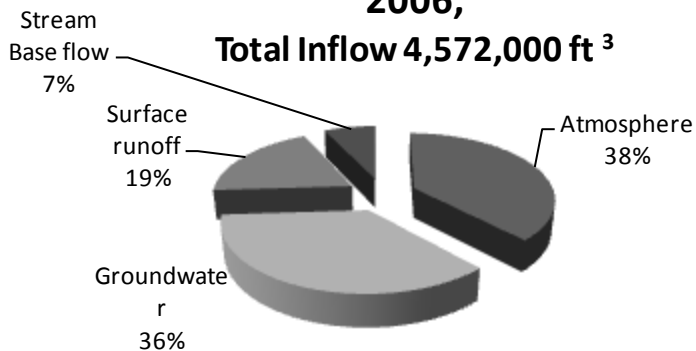
Watershed: An area where all the water that is under it or drains off of it goes to the same place.

Water table: The top of an aquifer where all the spaces between the soil and rock are filled with water.

Water Sources to Geneva Lake -

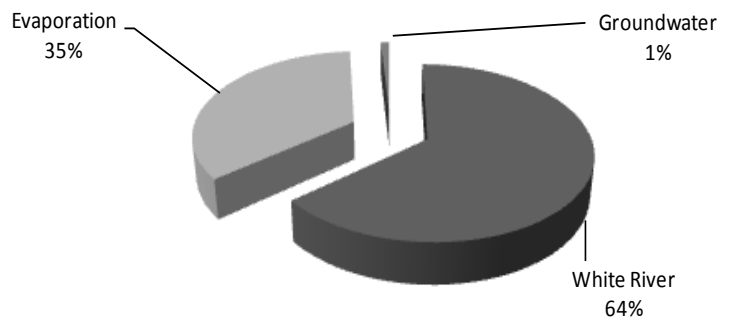
2006,

Total Inflow 4,572,000 ft³



Water Losses from Geneva Lake - 2006

Total Loss 4,575,000 ft³



Did you know??

- ◆ Agriculture uses for up 70% of the water we use.
- ◆ The amount of water is constant and recycled throughout time; actually, it is possible to drink water that was part of the dinosaur era.
- ◆ Forty trillion gallons of water a day are carried in the atmosphere across the United States.
- ◆ It is expected that the demand for water will double during the next 30 years.
- ◆ Lack of water is the number one trigger of daytime fatigue .

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GENEVA LAKE ENVIRONMENTAL AGENCY

PLEASE OPEN AND READ

IMPORTANT INFORMATION ON
GROUNDWATER AND YOUR DRINKING
WATER WELL.

For more information on Groundwater visit:

- Central Wisconsin Groundwater Center
<http://www.uwsp.edu/cnr/gndwater/>
- Wisconsin Department of Natural Resources (WDNR)
<http://dnr.wi.gov/org/water/dwg/>
- United States Geological Survey (USGS)
<http://water.usgs.gov/ogw/>
- Wisconsin Geological and Natural History Survey (WGNHS)
<http://www.uwex.edu/wgnhs/>
- United States Environmental Protection Agency (USEPA)
<http://www.epa.gov/>
- University Of Wisconsin—Extension
<http://www.uwex.edu/>
- Geneva Lake Environmental Agency (GLEA)
<http://www.genevaonline.com/~glea/>
- Linn Sanitary District (LSD)
<http://www.townoflinn.com/Sanitary.htm>
- Wisconsin State Lab of Hygiene (WSLH) for testing
<http://www.slh.wisc.edu>

