

## December Lake Conway Data Analysis

### Bonus Attachment

This issue includes the updated average Conway Lake Level chart updated to include the averages from 2014.

### Rainfall / Lake Level

NOAA predicted above average rainfall last month but we got a bit less at 2.23 inches. This was nearly the 2.3" long term average for the month most likely compensating for the heavy rainfall in November. At the end of the year the lake level was at 86.54 or a stage of 87% (virtually the same as last month). The lake is still well above normal conditions and about 1.2 feet above the average for the beginning of January. The lake level peak for the year was 86.83 (a stage of 96%) on October 1st. That is the highest it has been in nearly 9 years. NOAA is still predicting well above normal rainfall conditions for the next 3 months so we will have to presume the lake level will remain up in spite of being in the beginning of the dry season. As I write this we are getting over an additional 2" to start the new year with a flood.

[http://www.cpc.ncep.noaa.gov/products/predictions/long\\_range/lead01/off01\\_prpcp.gif](http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off01_prpcp.gif)

2015's accumulated annual rainfall was 56.08 inches which is 7.99 inches higher than we had last year. Given the current NOAA above average rainfall prediction we should expect the lake to remain high through the winter.

### El Nino / Southern Oscillation (ENSO)

According to the January 8th ENSO report there is still an El Nino Watch which means there is a good probability of El Nino conditions forming this winter. They are now predicting a 50 to 60% chance of El Nino in the over the winter which is a touch lower than their previous prediction. This indicates a possibility of increased rainfall this winter which agrees with NOAA's prediction of above average rainfall.

### Lake Temperature

We are near the bottom of the temperature curve but rainfall in January could take it lower. The average water temperature is at 66, about the same as last year at this time. It started the month at 67, dropped to 63 then came back. Swim if you are hardy. The Amoeba season is passed but never completely gone. More amoeba information may be found at:

<http://www.doh.state.fl.us/chd/volusia/eh/lab/pdf/amoeba.pdf>

### Hurricanes

We dodged the bullet The hurricane season is over. The December 11th report, by the University of Colorado's Philip J. Klotzbach and William M. Gray, is predicting a normal to light hurricane season in 2015. This depends on what happens to the THC (ThermoHaline Circulation - [temperature-salt circulation] That is the circulation of the salt concentration in the Atlantic ocean caused by cooling at the poles and heating near the equator.) and the potential El Nino condition. Strong THC tends to encourage hurricanes and el Nino tends to discourage hurricanes.

<http://tropical.atmos.colostate.edu/Forecasts/2014/dec2014/dec2014.pdf>

If you would like to see an estimate of the probability of tropical storms hitting where you live check out this site. It is also produced by William Gray of the Colorado State University.

<http://landfalldisplay.geolabvirtualmaps.com/> It showed 0.6% chance of a named storm entering Orange County this year.

### Planting and Weed Control

If you are doing aquatic planting now it should be off shore in 10" to 12" of water. With the lake level at the 87% stage and falling we want make sure our plants will not be planted so high as to be high and dry next spring. If planted too far out in the water they will not root well and could be washed out by wave action. When planting in the water it helps to have an offshore barrier of some sort to break up the waves to prevent them from being washed out by wave action before they root. Duck potato in less than 10" of water are easy meals for ducks. Yes, ducks do like duck potato for breakfast, lunch, and dinner.

To help us all enjoy a clear lake make sure you have maximized the number of aquatic plants on your shoreline. These plants help consume nutrients which run off from your yard and they provide habitat and food for fish and fowl. A sandy beach = a cloudy lake.

You might be inspired to attack some of that torpedo grass with a weed wacker. **DON'T DO IT!** That is about the worst way to control the weeds on your beach. It does not kill them. If you are doing any lakeshore cleaning, please capture **all** of your cuttings. Sprigs of torpedo grass are very hardy and easily survive an excursion across the lake while growing a new set of roots. Once on the beach they immediately start to take over and choke out the beneficial plants. A single sprig will take root and in three months it will be a circle of healthy torpedo grass 10 feet in diameter. Considering it is likely over a hundred of these sprigs could float away from a weed wacking job, your efforts could easily seed another 1000 square feet of torpedo grass all around the lake. Respect your neighbors and capture weed bits.

[As an example on the weekend of 8/3/13 someone on the west to south west side of the middle lake wacked their torpedo grass and on 8/5 I fished out nearly a bushel of torpedo grass sprigs which had just floated in. Probably a half mile of shoreline is now planted with new torpedo grass. These get caught in our good weeds so we cannot see them then choke out the good plants in about a year. As long as people do not collect their trimmings it will be impossible to control torpedo grass.]

The best approach for controlling torpedo grass is with lake friendly herbicides. These may only be applied with the proper permit from Orange County Environmental Protection Division 407-836-1400 and Florida Fish and Wildlife Conservation Commission 407-858-6170. These permits are not expensive nor difficult to obtain. The County allowed weed free area on any lot is a maximum of 30' and there is no "grandfathering" of larger cleared areas. In any event make sure you collect any and all weeds you remove from your beach.

Orange County Lakeshore Vegetation Removal Permit:

<http://www.orangecountyfl.net/PermitsLicenses/Permits/LakeshoreVegetationRemovalPermit.aspx>

County Lakefront Clearing Regulations

Orange County Code of Ordinances - Section 15-251 through Section 15-256

<http://www.orangecountyfl.net/Portals/0/Library/Permitting-Licensing/docs/ArticleVIIILakeshoreProtectionCode.pdf>

Florida Fish and Wildlife Conservation Commission Permit page including links to the permit and regulations: <http://myfwc.com/license/aquatic-plants/>

NOAA current La Nina - El Nino Synopsis:

[http://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/enso\\_advisory/ensodisc.pdf](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.pdf)

Orlando Weather Averages by month <http://countrystudies.us/united-states/weather/florida/orlando.htm>

Live weather data on the north shore of the middle lake, updated by the minute, can be viewed at:

[http://www.wunderground.com/swf/Rapid\\_Fire.swf?units=english&station=KFLORLAN51](http://www.wunderground.com/swf/Rapid_Fire.swf?units=english&station=KFLORLAN51)

Thank you for your help maintaining our lakes.

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