

December 2016 Lake Conway Data Analysis

Rainfall / Lake Level NOAA predicted below average rainfall last month and we got that at 1.37 inches. This was just 59% of the 2.3" long term average. At the end of the month the lake level was at 84.87 or a stage of 53% (an decrease of 6% from last month). The lake is well into the normal range and about 4 inches above the average for the beginning of January. NOAA is predicting slightly below normal rainfall conditions again next month. We are in the dry season so we should expect the lake level to continue to decrease this month.

http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/off15_prep.gif

This year's accumulated annual rainfall is 57.15 inches which is 1.01 inches more than we had last year by this time. Given the current NOAA below normal rainfall prediction and the the dry season we should expect the lake to continue dropping this month. A look at the longer range predictions indicate a dryer winter.

EI Nino / Southern Oscillation (ENSO)

NOAA's December 8th ENSO: Diagnostic Discussion continues to report a La Nina advisory. Conditions are below average temperature right now with a La Nina in place. It is expected to return to neutral conditions next spring. This agrees with the long term prediction of lower rainfall next winter. There is little, if any, link between ENSO and Florida's rainy season. La Nina is a phenomenon which reduces Florida rainfall in the winter.

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.pdf

http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf

Lake Temperature

The temperature is continuing down slowly and about 5 degrees cooler than this time last year. December water temperatures started at 71 degrees and took and bounced up and down 5 times to end at 68. The Amoeba season is past but caution is always advisable. To minimize the probability of infection do not blast water up your nose and stay out of warm stagnant areas, especially those with muddy bottoms. More amoeba information may be found at:

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

Hurricanes

The hurricane season is over but as of Nov. 30th the 2016 Summary, by the University of Colorado's Philip J. Klotzbach, says the 2016 hurricane season was slightly heavier than expected. Hurricane Matthew's longevity accounted for the additional storm days. The next forecast will be April 6th.

<http://webcms.colostate.edu/tropical/media/sites/111/2016/11/2016-11.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 is showing 0.8% chance of a named storm entering Orange County this year. Please bear in mind that it takes only one event to wipe out everything so be prepared.

Planting and Weed Control

If you are doing aquatic planting now it should be off shore in 6" to 12" of water. With the lake level at the 53% stage and falling we can expect lower levels soon. We should plant low to prevent the plants from being high and dry if the lake level drops next year. 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 all your 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 they 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' feet 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 (with discussion):

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

Thank you for your help maintaining our lakes.

David Woods PE
TEC Engineering, Inc.
Voice 407-859-8737
email DWoodsTCR@gmail.com

If you would like to be added to the distribution list for this information please contact me at the email above.