

December Lake Conway Data Analysis

Rainfall / Lake Level

NOAA predicted substantially above average rainfall last month and we got only 1.14 inches. This was only 49% of the 2.3" long term average. This clearly illustrated the need to only use the one month projected average which we will start in 2016. At the end of the month the lake level was at 85.99 or a stage of 65% (a decrease of 5% from last month). The lake is now in the "normal" range but is still about 0.6 feet above the average for the beginning of January. NOAA is predicting significantly above normal rainfall conditions for the next 3 months again. January is a low rainfall month so we should expect the lake level to be stable this month. The prospect of increased rain balanced against the dry season will result in little change and a possible increase.

http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off01_prctp.gif

This year's accumulated annual rainfall is 56.14 inches which only is 0.06 inches more than we had last year. Given the current NOAA heavy rainfall prediction and the end of the rainy season we should expect the lake to remain about the same this month. [Lake levels reported here and previously are based on NGVD 29 and will be revised to conform to NGVD 88 starting in 2016.]

El Nino / Southern Oscillation (ENSO)

NOAA's December 10th ENSO: Diagnostic Discussion reports an El Nino Advisory with a "full on" El Nino for this winter. It will then return to neutral conditions next summer. This indicates a possibility of increased winter rainfall, agreeing with the earlier mentioned rainfall predictions. There is little if any link between ENSO and Florida's rainy season. El Nino is a phenomenon which effects 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

It looks like the hard core wake boarders can keep at it. December water temperatures maintained around 7 degrees warmer than last year. Starting at 72 degrees the lake temperature dipped only briefly below 70 then shot back up to 75 during the Christmas/New Year's heat wave. The Amoeba season is past but caution is still due. More amoeba information may be found at:

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

Hurricanes

The December 10th report, by the University of Colorado's Philip J. Klotzbach and William M. Gray, says the 2016 hurricane season is likely to be slightly heavier than normal but at this time it is hard to make a clear call. the status of El Niño will have a significant impact on the end result.

<http://tropical.atmos.colostate.edu/Forecasts/2015/dec2015/dec2015.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 0.4% 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 65% stage we will assume this is a fairly long term trend. We should still 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 is 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 whacker. **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 whacking 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 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/ArticleVIILakeshoreProtectionCode.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.