**July 2014 Lake Conway Data Analysis**

**Rainfall / Lake Level**

NOAA predicted average rainfall last month and we got a bit above average at 8.54 inches. A pretty good match considering the 7.3" long term average for the month. At the end of the month the lake level was at 85.99 or a stage of 65% (a 22% increase from last month). The lake is well above average and about 1.1 feet above the average for the beginning of August. NOAA is still predicting normal rainfall conditions for the next 3 months. This is well into the wet season so we should expect the lake level to continue climbing. NOAA now seems to be on the mark again. It is still safe to expect the lake could crest the weir in the next month.
http://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead01/off01_prcp.gif

This year's accumulated annual rainfall is 31.65 inches which is 2.39 inches lower than we had at this time last year. Given the current NOAA average rainfall prediction and summer in full swing we should expect the lake to continue rising. There is still some probability of some docks being awash this summer.

**El Nino / Southern Oscillation (ENSO)**

According to the August 7th ENSO report there is an El Nino Watch which means there is a reasonable probability of El Nino conditions forming later this summer and fall. They are predicting a 65% chance of El Nino. This indicates a possibility of increased rainfall this summer and fall.

**Lake Temperature**

Get the bath towel out. The lake is still like a bathtub. The average water temperature is up to 87, virtually the same as last year at this time. It started the month at 86. The peak temperature is usually in August so we should not expect much increase now. The Amoeba season is here so caution is due. More amoeba information may be found at: http://www.doh.state.fl.us/chd/volusia/eh/lab/pdf/amoeba.pdf

**Hurricanes**
The July 31st report, by the University of Colorado's Philip J. Klotzbach and William M. Gray, continues to indicate this summer will be a light hurricane season. This due to the lower temperature THC (ThermoHaline Circulation - [temperature-salt circulation] That is the circuation of the salt concentration in the Atlantic ocean caused by cooling at the poles and heating near the equator.) and the anticipated light El Nino condition. Strong THC tends to encourage hurricanes and el Nino tends to discourage hurricanes. They are still forcasting 9 named storms for the remaining hurricane season.
http://tropical.atmos.colostate.edu/Forecasts/2014/july2014/july2014.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 0.6% chance of a named storm entering Orange County this year.

**Planting and Weed Control**

If you are doing aquatic planting now it should be at the shore line or slightly above. With the lake level at the 46% stage and rising we want make sure our plants will not be planted so high as to be high and dry next winter. If planted too far out in the water they will be too deep to survive next summer's high water. When planting near the shore 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 Vegitation 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:
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 DWoodsTEC@cfl.rr.com