The Newsletter of the Bear Lake Preservation Association, Inc. • November 2011

Nutrient Study Update — The Results are (Almost) In!



The much anticipated nutrient study for all four of the lakes in the Bear Lakes watershed is finally near completion! After more than a year of water quality data collection on inflows, outflows, groundwater, rainfall, and evaporation, Dr. Harvey Harper has finished almost all of the analysis. Once complete, the study will show the levels and sources for all nutrients (nitrogen and phosphorus) entering each of the four lakes. Many of us have speculated over the years about what exactly is causing the decline in clarity or



health in our lakes, but through his thorough data collection and analysis, Dr. Harper will have the scientific evidence to identify what is specifically having the biggest (and smallest) impact on each of them. He will also provide his recommended strategies, activities, and projects to protect and improve the lakes now and in the future. Dr. Harper will be presenting his long awaited findings at the November 15th BLPA Annual Meeting, so come on out and get the information first hand! We hope to see you there!

BLPA HOLIDAY BOAT PARADE

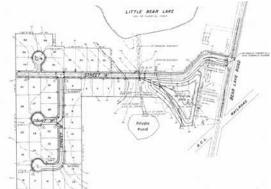
The BLPA Holiday Boat Parade will be held on Saturday, December 10th. If you wish to participate, registration will be held at the Cramner's dock at 5:30 p.m. The boat parade will begin at dark and the winner of the Holiday Boat Parade will be announced at the next general meeting. For more information, call Holly Gosney at 407-774-0859 or you can email her at holly.gosney@fedex.com.

See BLPA Picnic on pages 4 & 5!



The Impact of Development on Little Bear Lake

By Judy Ihrig



In 1994, 18 acres of land south of Little Bear Lake was cleared for the Bear Lake Woods Subdivision. At that time, a retention pond was built to hold run off from the subdivision. The other problem was a pond got cut off from flowing into Little Bear so they added a culvert to run under Jessica Dr. which allowed a flow into Little Bear



Lake through the wetland. Shortly after the land was cleared, tropical storm Gordon dumped 7-10 inches of rain in one day. Unfortunately, dirt from the cleared land washed into Little Bear Lake resulting in less than one-inch visibility. Over time, the dirt settled to the bottom of the sandy lake and gave it a blanket of silt.

In 2003 Seminole County created a temporary cofferdam on the south west side of the lake. This was so they could install a new drainage pipe to connect with Ardele Court and Bear Lake Circle. Although turbidity fences were placed around the temporary cofferdam, to our dismay, the fences failed and the wall of dirt washed directly to the bottom of the lake. Little Bear Lake has homes all around it with the exception of the designated wetlands on the south east side of the lake. Today, most of the stormwater flows directly into the lake without any filtration.

In July 2011, Little Bear Lake dropped from 8 ½feet visibility to less than one-foot. Believing at first it could be an algae bloom, Bear Lake Preservation Association (BLPA) had the water tested. The result of the test was fill dirt. BLPA then conducted a full search and investigation around the lake to determine the cause of the latest plume. Saint Johns' Water Management (SJWM) informed BLPA

the owner of the property and pond south of Little Bear Lake was fined for filling their land and blocking the flow of the pond. In July we had heavy rains and this delta of dirt your see in the photo was deposited into Little Bear Lake. The dirt that is left will eventually spread out and settle, adding another layer of silt to the bottom of Little Bear Lake. The lake also has boat traffic which stirs up all the silt, especially in the shallower areas, contributing to the poor visibility.

What needs to be done?

- 1. A retention pond needs to be added between Little Bear Lake and Jessica Drive to retain the water south of Little Bear Lake.
- 2. A holding pond or swales in the area of Ardele Court and Bear Lake Terrace need to be added.
- 3. The county and/or SJWM should make arrangements for the removal of the recent volume of fill dirt into Little Bear Lake. This will allow the plants and fish to flourish, clear visibility, and assist in keeping the lake clean for generations to come.



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Septic System Maintenance: Ten Easy Steps to a Healthy Septic System



Failing septic systems can make you or someone you know sick by polluting your well or a neighbor's well, can threaten the health of children and pets playing in the effluent, and can make waterways green with slime. Simple logical care of your septic system can keep people and properties healthy, prolong the system's life, and save on very costly repairs. If you are like most people, your home is your biggest asset, so it makes sense – in terms of health, economics, the environment, and both personal and community responsibility – to understand how a septic system works and how to take proper care of it.

Signs of a Failing Septic System: The signs of failure are obvious: sewage odors, slow-draining toilets or drains, and lush grass or slimy sewage over the septic field, especially after a rainstorm or in a wet spring.

How Does a Septic System Work? In the simplest terms, soiled water or effluent either runs by gravity or is pumped from your house to a holding tank where heavier solids settle to the bottom and the lighter liquid gradually seeps out into the septic fields. There natural biological reclamation, absorption, and evaporation render the liquid harmless over time. There are various system designs, but the general principles remain the same. In newer tanks, baffles direct the effluent downward into the first chamber while lighter liquids float into the second half of the chamber. Another baffle before the outlet pipe to the leaching field tries to keep the solids from escaping and clogging the drainfields. (The very newest tanks have a warning baffle system that will back the effluent back up into the house - if the tank is not pumped when full - rather than have the solids clog and destroy the field.)

These basic, practical Do's and Don'ts for regular maintenance are very easy to remember and to implement.

- 1. Locate and map your tank and field (perhaps with your Health Department's help) and keep a record of work done to the system.
- 2. Pump your tank every 2 to 3 years to prevent scum and sludge from clogging your field more often if soils and heavy use warrant it.
- 3. Prevent heavy machinery and vehicles from driving over your tank and drainfields, thereby crushing the piping and compacting the soil. Plant and mow grass over your fields, avoid bushes and trees whose roots can clog and break your pipes and fields.
- 4. Conserve water to avoid flooding the system. Fix leaks, stagger laundry loads, avoid long shower, use water restrictors in showers, faucets, and toilets. The average family can reduce the amount of water entering the septic system by 20,000 gallons per year!
- 5. Don't use a garbage disposal, put food waste in the trash or compost it. Wipe the grease out of pots and plates with a paper towel. The tiny particles it creates will clog fields. If you must use one, be prepared to pump more frequently.
- 6. Don't discharge water softeners to the system. Increased salts in the ground-

water can elevate blood pressure and be hazardous to health.

- 7. Don't discharge water from hottubs or other highly chlorinated water into the system.
- 8. Do not pollute or clog your tank with hazardous chemicals or nonbiodegradable elements: no grease, diapers, coffee grounds, dental floss, feminine sanitary products, kitty litter; no gas, paint thinner, oil paint, pesticides, antifreeze. Do not use tank additives. Minimize the use of harsh cleaners, such as bleach, or automatic toilet bowl cleaners, as it can kill the bacteria that are necessary for the decomposition in your septic tank.
- 9. Space out your laundry loads over the course of the week. The average load uses 50 gallons of water. One load per day, rather than seven loads on Saturday, makes a big difference to your septic system.
- 10. Use liquid laundry detergent. Powdered detergents use clay as a carrier and the clay can plug the drain field. "Sud Savers" are also recommended as well as using lint traps.



Real Estate Watch

Bv Susan Burton, Realtor®

The following is the current information regarding real estate listings. Please don't hesitate to call me with any questions (407-222-3917).

Active Listings

l	9434 Bear Lake Rd	\$335,000
l	6007 Linneal Beach Dr	\$449,500
l	3304 Holliday Ave	\$499,000
l	3050 Holliday Ave	\$599,000
l	3206 Holliday Ave	\$675,000
l	6103 Linneal Beach Dr	\$950,000
l	6259 Linneal Beach Dr	\$1,200,000
l	3524 Holliday Ave	\$1,300,000
I	2790 Neil Rd	\$1,900,000

There are currently no properties under contract. There have been no closed sales in the last three months.

What a Beautiful Day for a Picnic!

On Saturday, September 24, the Bear Lakes residents met to celebrate the 20th year the Bear Lake Preservation Association has been protecting our lakes.

Approximately 90 residents met for a BBQ on the beautiful grounds of the historical Florida Power Clubhouse on Big Bear Lake. Lunch was provided by "Broasted Chicken" in Lake Mary along with a delicious assortment of side dishes and desserts brought by many families.

A popular event was the "BEST DESSERT CONTEST" as Julie Dominica won first place for her "Toffee Brownie Truffle" dish and Annette Patterson won 2nd place for Peanut Butter Pie.

Brad Fitzgerald won the 50-50 contest & immediately donated it to the Cara Moro fund.

The Clean Lakes Coloring Contest had 15 participants from ages 3 to 14 with Garrett Vallancourt as the 1st place winner for 7-9 year olds and overall best drawing, Nikolaus Carnes was 1st place winner for 3-6 year olds and a special prize from a BLPA Supporter for his "removing eelgrass" theme, and Michael Ihrig won 1st place for 10-14 year olds. It is nice to see the clean lake perspective through the children's eyes.

The Healing Hands for Cara tent, was a successful benefit for NTAF Southeast Spinal Cord Injury Fund, in honor of Cara Moro, of the long-time Bear Lake Moro family.

Games were played and the "corn hole toss" tournament winners were Brad & Brian Fitzgerald. Volleyball was most popular until sunset and "Music by Chuck" of Park Avenue in Winter Park was enjoyed throughout the afternoon.

We thank Catherine Heideman, and many others who helped our BLPA Social Director, for the wonderful party celebrating 20 years of the BLPA.





















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What a Beautiful Day for a Picnic!



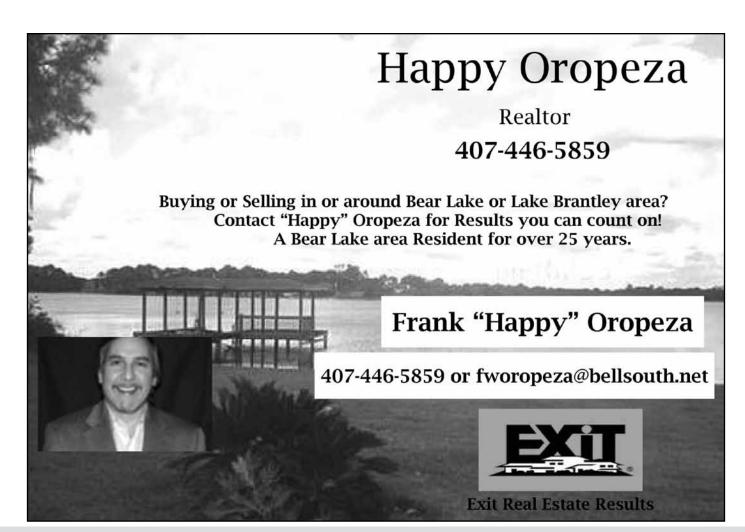


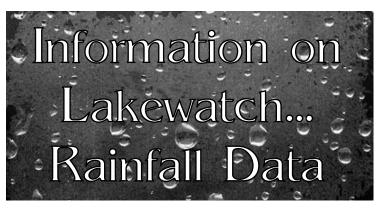












The following LAKEWATCH data covers the past six months. Cooler water temperatures from July rains helped to keep the algae from growing as much as in the past few summers. The surface water temperature never reached 92 degrees as it did last summer. The highest temperature read was 79 degrees at the end of June. In Bear Lake we identified two types of algae seen in June, July and August

- Oscillatoria is a filamentous blue-green algae which attached to the eelgrass, looking like slimy green tubes floating across the lake.
- Lyngbya is an algae growing along the bottom and in the summer months the oxygen production in these plants increase, lifting them off the bottom, creating an ugly sight and foul odor. Boating and winds also stir up the algae in the shallow areas of the lake, affecting water clarity. Some Lyngbya cause the human skin irritation

called seaweed dermatitis

Looking at the data collected by each LAKEWATCH Captain in the chart below, one can see the extreme clarity drop for Little Bear in July from heavy rains that flushed muddy water into the lake from a pond south of the lake. Little Bear Lake turned into a mud pot and it is still settling. (See article pg. 2)

Carp have been dislodging the eelgrass at the roots in Bear and Cub Lake, as the fish prefer the tender root part of the plants. Residents have been raking floating eelgrass out as winds pile it on shorelines. On windy days, 24" to 30" carp can be seen along the calmer sides of Bear Lake eating leaves as they fall from the trees.

In Bear Lake, eelgrass is holding some sediments in place on the bottom of the lake in the shallow areas, aiding in water clarity. Just as the Alum Treatment in April of 2008 is holding the phosphorous in place on the bottom in the deep areas (16' deep or greater) where it was applied, the eelgrass is holding some nutrients in the sediments in place also on the lake bottom. Phosphorous levels have remained low in Bear Lake after the Alum treatment, aiding to the clear lake. This stabilization of bottom organics/muck, from the aid of Alum and eelgrass, help to keep the nutrients from being stirred up, recycling in the water, feeding future algae growth turning our lake green. Heavy winds & boating in shallow areas stir up the sediments, algae and nutrients.

9	<u>Date</u>	Rainfall	Clarity Level	Water Level (Above Sea Level)
¥	5/11	3"	10'	102.8
Lake	6/11	4-5/8"	9'	102.7
	7/11	13"	11'	103.2
ar T	8/11	9-7/8"	12'	103.3
$\widetilde{\omega}$	9/11	13-7/8"	13'	103.95
Bear	10/11	12-1/16"	12'	104.1
	Date	Rainfall	Clarity Level	Water Level (Above Sea Level)
Little Bear Lake	5/11	3"	8'	103.2
e Se	6/11	4-5/8"	6'	103.33
A Š	7/11	13"	2'	103.5
He La	8/11	9-7/8"	4'	103.74
j::	9/11	13-7/8"	3-1/2'	103.8
	10/11	12-1/16"	3'	103.9
(1)	Date	Rainfall	Clarity Level	Water Level (Above Sea Level)
ake	5/11	3"	13'	99.7
$\overline{\varphi}$	6/11	4-5/8"	12'	99.9
	7/11	13"	13'	99.8
P	8/11	9-7/8"	10'	100.4
Cub	9/11	13-7/8"	11'	99.9
\bigcirc	10/11	12-1/16"	12'	100.2



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Calendar of Events

January 24BLPA Elections Meeting

For committee meeting dates, please contact one of the Board members. The Ecology Committee meets the 3rd Tuesday of each month at 7:00 p.m. For information, contact Bill Houston at 407-721-0219.









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St. Andrews Presbyterian Church

9913 Bear Lake Road • Apopka, FL

407-293-6802 • Worship: 10:30 am Sunday School: 9:15 am





BLPA MEMBERSHIP APPLICATION

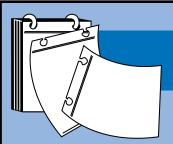
PO Box 162605, Altamonte Springs, FL 32716 • www.blpa.net

Current Members: 92
Goal: 125

2011 BLPA dues	\$85.00	Seniors 62+	.\$50.00	
Please make checks payable to: B.L.P.A. and mail to: P.O. Box 162605, Altamonte Springs, FL 32716. Thank you for your continuing support to help keep our lakes clean!				
Name:				
Address:				
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Email:				

**Effective June 13, 2009, BLPA is now a 501(c)(3) tax exempt organization. All financial contributions to BLPA are

now tax deductible. BLPA will provide a receipt upon request for your donation.



MARK YOUR CALENDAR!

BLPA General Membership Meeting

November 15, 2011, 7:30 p.m. St. Andrews Presbyterian Church

Guest Speaker:

Dr. Harvey Harper, Environmental Research and Design, conducting the Bear, Little Bear, Cub & Asher Lakes' Nutrient & Hydrologic studies, will address the BLPA with important updates at this meeting.

Door Prizes
Refreshments



PO Box 162605 Altamonte Springs, FL 32716



On Saturday, Oct. 22, 2011, a 10" water main broke on Bear Lake Rd. flushing 135,000 gallons of muddy water into the stormwater pipes and into Bear Lake at Bunnell Rd.

BLPA members worked quickly to alert the county about the damage to the lake. They took about an hour to shut off the main water pipe. The Stormwater Department responded and fixed a silt barrier fence in the ditch to slow the turbid water down.

The muddy water flushed a plume 500' out into the lake and it muddied the lake waterfronts of 16 houses to the south of the ditch. The County

cleaned the dirt off the road and in the stormwater pipe. Yet we have another flush of mud into the lake, which will settle and cover what was once a white sandy lake bottom.

To report waste-water, mud or other polluting material that you see being discharged into a street, stormdrain, ditch or lake: Mon.-Fri. 8 to 5 call 407-665-ROAD (7623). Afterhours call 407-665-ROAD (7623). Stormwater calls are routed by emergency communications to the emergency on call responder for Seminole County.

Let them know where the source is entering the lake. Be sure to report any activity which will damage the lakes to your LAKEWATCH Captains: Bear Lake or Lake Asher: Nancy Dunn 407-920-4975; Little Bear Lake: Jan Brown 407-295-6739; or Cub Lake: Margaret Bundy 407-523-1064.

Top Photo: Muddy water in Bear Lake after water main break.

Bottom Photo: Muddy water flowing through ditch to Bear