

Water's Edge

The Official Adopt-A-Lake Program Publication of the City of Lakeland



Introducing the New Lakes & Stormwater Crew

Shani Kruljac, Lakes Program Coordinator

Salutations from "Water's Edge". This issue highlights volunteer participation, updates on the Lake Parker Stormwater Treatment Project, an article about the Griffin Road Wetland and interesting Lakes Appreciation Month Statistics.

The Adopt-A-Lake Program wouldn't be possible without you!

New & Old Faces!

What a great first three months I've had! Thanks to everyone who helped make it a smooth transition during the change of Lakes Program Coordinators. Just so you know, Johnna Martinez still has not REALLY left yet, because I am constantly calling her and asking questions and getting her opinions on things. And, Sharon Siegel, of Lakeland Clean & Beautiful, receives quite a few knocks on her office door from me also... "How do I do this?" ... "What do I do with that?" ... so on and so on. Thanks guys! What would I do without you?

I am not the only one who is new to the Lakes & Stormwater Division — we have two new environmental specialists on board, also: Kelly Aurich and Ed Hughes.

Kelly has lived in and around Lakeland her entire life. After graduating from Kathleen High School, she went on to get her BS in Biology from Florida Southern College. She worked as a middle school science teacher for a short time before coming to work for the Lakes & Stormwater Division as an Environmental Specialist. While she has many interests (ballroom dancing, disc golf, paintball) she feels her most important contribution is volunteering for Safari Todd Wildlife Productions (STWP), a not-for-profit organization committed to saving native wildlife through hands-on education and entertainment.

Ed Hughes just began working with the Lakes & Stormwater Division on August 10. Eddie grew up in Lakeland and attended the University

of Miami where he earned his BS degree in marine science. While there, he spent a year abroad in the exchange program at James Cook University in Townsville, Queensland, Australia. He later earned his MS degree in Oceanography from the University of Rhode Island. His professional experience includes working as an environmental specialist for the Florida Department of Environmental Protection in Tampa and as a staff scientist for Continental Shelf Associates in Jupiter, Florida. He and his wife, Jackie, now reside in Lakeland.

Eddie and Kelly work together to maintain the city's National Pollutant Discharge Elimination System (NPDES) permit, and help develop and implement watershed management projects. Their duties also include enforcement of stormwater codes prohibiting illicit discharges of non-stormwater into the City storm sewer system, as well as provide public information and education.

That makes three new people in our division of five. Thankfully, we have great leadership from Bal Sukhraj and Gene Medley, each having been with this division for seventeen years. Bal works on the lakes management side, dealing with aquatic plants, lake fluctuations and lake water quality issues. If you see a city boat on one of our lakes, most likely Bal

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Eddie Hughes, Bal Sukhraj, Shani Kruljac, Kelly Aurich, Gene Medley

Upcoming Events

Now Through October

Florida Coastal Cleanup Call Sharon Siegel at 834-3306 for more information.

Saturday, October 30, 2004 (Time TBD)

Rain Barrel Workshop at Street Audubon Center in Winter Haven. Rain barrels—\$15. Call (863)519-8677 x121 to register.

Landscaping with Native Plants

Workshop at Street Audubon Center in Winter Haven; time TBD. Free workshop, please call (863)519-8677 x121 to register.

Audubon Native Plant Sale at Street

Audubon Center in Winter Haven. Native plants for sale, educational programs, trail walks, etc. For more information, call (863)519-8677 x121.

Saturday, November 20, 2004 (9-10am)

Water Wise Workshop teaches the homeowner how to use water in their landscape efficiently. Fee for the workshop is \$15 and includes micro-irrigation starter kit. Please call (863)519-8677 x 121 to register.

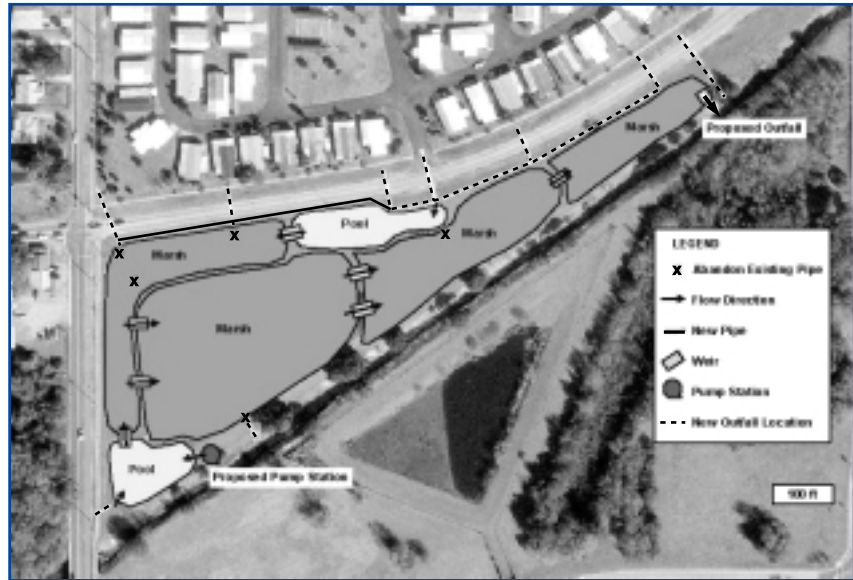
Lake Parker Treatment: Griffin Road Wetland

Gene Medley, Lakes & Stormwater Manager

Lake Parker is a large eutrophic waterbody that receives much of its nutrient loading (one type of pollutant) from stormwater runoff. A eutrophic waterbody is a waterbody that is enriched in dissolved nutrients. These nutrients stimulate the growth of aquatic plant life which results in the depletion of dissolved oxygen. Ultimately a eutrophic waterbody can have huge algae blooms and even fish kills. Because most of the development in the Lake Parker watershed pre-dates current stormwater regulations, only a small fraction of the runoff receives any treatment prior to entering the lake. With this in mind, the City of Lakeland began studying the lake and its drainage basins to find ways to decrease the nutrient loading in stormwater runoff.

These studies show that a significant amount of the stormwater runoff enters Lake Parker from a man-made canal that discharges at the northwest shore of the lake. This canal drains a 2,015-acre sub-basin composed of residential and commercial areas. A parcel of land at the intersection of Griffin Road and Lakeland Hills Boulevard, recently purchased by the City, is ideally located to aid in the treatment of stormwater runoff, with its southern boundary adjacent to the man-made canal. Also, because of the parcel's close proximity to Lake Parker there is a greater opportunity to capture large amounts of runoff and pollutants as compared with a site located further upstream.

This location currently contains a wet detention pond that treats runoff from a small area to the north. However the proposed system, an emergent wetland, will capture runoff from the entire 2,015-acre sub-basin. An emergent wetland has definite advantages in this situation. Emergent wetlands



Overhead map of the Lake Parker wetland on Griffin Road.

allow for greater improvements in water quality due to the role of plants and soils in nutrient cycling processes, greater oxygen transfer through the water column, and a greater number of attachment sites for microbial organisms or microbes. Water quality improvements include the removal of suspended solids, nutrients, metals and organic pollutants. These advantages have helped establish natural and constructed wetlands as proven stormwater management technologies.

Under the proposed plan, water flowing through the canal would be pumped from the canal into the wetland for treatment. After a period

sufficient for settling and uptake of nutrients by plant life, the water would discharge back into the canal and eventually into Lake Parker. The construction of the Griffin Road wetland will result in the removal of approximately 11% of the total suspended solids from the sub-basin flow.

The engineering design is underway and project construction may be completed as early as next summer. Additional projects designed to enhance the quality of stormwater runoff to Lake Parker are currently being evaluated.

New & Old Faces!

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is behind the wheel!

Gene is the Manager of the Lakes & Stormwater Division. He's responsible for the development of all the Lakes & Stormwater programs. Gene comes up with the roadmap, and we help him implement it!

Together, we all work to conserve and enhance the surface water resources within Lakeland. If your

club, school group or civic organization is interested in learning more about lakes education and protection, stormwater projects, etc., we would be happy to do a presentation. For a list of presentation topics, contact me and I will send a Speaker's Bureau brochure to you, or to anyone else who may be interested.

VOLUNTEER SALUTE

Impressive Volunteers!

The month of July was Lakes Appreciation Month. Our lakes must be greatly appreciated because we had an excellent volunteer turnout! Instead of having one day devoted to a big cleanup event, we gave volunteers the option to choose their own day and time for cleaning up their favorite/adopted lake. Most folks seemed to like this new format for celebrating Lakes Appreciation Month (see next article for cleanup stats and survey results).

The **Anstey Family** started us off early in the month by collecting 40 lbs of trash from the western shoreline of Lake Parker. **Team M&M** was out and about in the middle of the month on Lake Mirror where close to 100 lbs of litter was collected. Lake Bonny got some attention from the **Lake Bonny Neighborhood Association** who picked up at least 140 lbs of trash – including a bike frame!

We have several dedicated individuals who make more than one trip out to

our lakes throughout the month. As usual, **Michael Chakin** with the **Friends of Lake Hollingsworth** did his daily walking/garbage collection around Lakes Hollingsworth where his grand total for the month equaled more than 50 lbs. **Peggy Cook** also got some exercise when she rode her bike two weekends in a row around the Sykes Blvd. side of Lake Hunter where she collected six large garbage bags of trash. Finally, would you believe **Jim Sizemore** applied 124 stormwater drain plaques by himself just in the month of July?!?! And, he's not finished yet...that's unbelievable!

We also had several new groups out for their first time. The **Blanchard and Pickarski families** chose to tackle the stormwater pond in their Rolling Woods Lane development, where they removed six bags of debris from the pond's surface. I'm sure the neighbors appreciate that! The **Lakeshore Neighbors Association** had a successful inaugural cleanup on their



Lakeshore Neighbors Association: Lauren, David, & Susan Delp, Patty Willett, Officer Diaz, Bonnie Stitler, Jan Trask

newly adopted portion of Lake Parker... they removed 120 lbs of trash. Lake Wire finally found a family when the **North Lake Wire Neighbors Association** decided to adopt it last month. They had their first clean up at 6:30 a.m....is it even light yet at that time? Apparently so, because they managed to collect 12 large garbage bags of litter in 2 hours. That rocks!

We would also like to welcome two more groups who have come on board: **Shane's Marina** and **Tuff-Tuff Charters** who will assist in the litter-control of Lake Mirror and **Combee Area Revitalization Effort Inc. (C.A.R.E., Inc.)** who has adopted the eastern shoreline of Lake Parker.

*Thanks!
You guys are the best!*

Lake Parker Stormwater Treatment Project - UPDATE

As you may recall from the Fall 2002 edition of the Water's Edge newsletter, the City of Lakeland was close to finalizing plans for stormwater retrofitting the southwest outfall system at Lake Parker. Stormwater retrofitting is the process of upgrading old stormwater systems to include some degree of treatment to the water prior to its discharge to a waterbody — in this case Lake Parker. Underground pipes collect stormwater runoff from a 530-acre watershed area that extends southwesterly to Lake Mirror and parts of downtown Lakeland. This area has been extensively developed and includes many acres of pavement, roofs, and roads, which results in the stormwater runoff collecting large amounts of litter that are ultimately carried into Lake Parker and deposited around its shoreline.

The City of Lakeland has since purchased the necessary lakefront properties, attained the necessary

permits, and commenced with construction activities for the southwest outfall retrofit in May 2003. Erosion and turbidity barriers were set in place to protect the lake's water quality, while trees were removed or relocated, and vegetation was removed in preparation for the site's alterations. Initially, by-pass structures were set in place to channel stormwater flow to allow the permanent structures, namely the 2 large ponds and weir sections, to be constructed.

The two wet detention pond areas were excavated, one along the western edge and the other along the southern edge of the southwest corner of the lake as planned. The ponds were designed to hold water at all times and have deep settling areas as well as shallow areas where aquatic vegetation was planted. Unfortunately, the project hit a roadblock during this early excavation process. Shortly after beginning construction, it was discovered that the existing drainage

networks of pipes and culverts that carry stormwater runoff to the project site were in extremely poor condition. The sides of a number of the pipes were allowing excessive leakage of stormwater and would have to be replaced. As a result the project was suspended so that engineers could redesign the improvements to include removing the dilapidated sections of the drainage network and replacing those with new piping.

The engineering re-design was completed earlier this summer. City of Lakeland officials chose to delay further construction until mid-Fall 2004, after the rainy season had passed. Their decision took into account how much stormwater is conveyed through the SW outfall area and the potential difficulties presented by flooding in the work site due to frequent summer thunderstorms. Construction activities are set to resume in November 2004 and should be completed by Spring 2005.



ADOPT-A-LAKE
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Survey Results! 25 Surveys Returned

Were you happy with the dinner selection? 100% yes

Did you like the location of the dinner? 92% yes; 4% no; 4% indifferent.

Give us your opinion on the format of Lakes Appreciation Month this year. Do you prefer one big clean up event with a picnic luncheon afterwards; or the way we did it this year—you choosing the time & day for your clean up & then all volunteers convening for dinner? 72% prefer the option of choosing; 4% one organized cleanup day; 24% indifferent.

Would you continue to participate in Lakes Appreciation Celebrations in the future? 100% yes.

Would you be interested in participating in other organized Lake Appreciation Month activities such as a guided nature walk, a cardboard boat race, a fishing rodeo, etc? 56% yes; 28% no; 16% undecided.

Currently, Lakes Appreciation Month is celebrated across the continent during the month of July. Since this is not the ideal time to be outdoors in Florida, how do you feel about us holding our Lakes Appreciation Month at a different time of year?

44% Like July; 36% Prefer Spring or Fall; 8% Prefer a different month in Summer; 12% Indifferent.

Lakes Appreciation Month Statistics

LAKES WITH EVENTS

Lizzy, Howard, Silver, Mirror, Parker, Hollingsworth, Bonny, Hunter, Wire & Rolling Woods Lane Stormwater Pond

Total Number of Volunteers

92 volunteers

Volunteer Hours

215+ hours

Activities Performed

Litter Removal & Storm Drain Plaque Installation

Total Number of Bags

116 bags

Total Pounds of Trash Removed

18,340 lbs

Total Number of Stormwater Plaques

124

Thanks for Your Hard Work & Dedication to our Program

If you know of anyone interested in the Adopt-A-Lake Program please contact Shani Kruljac at 834-3307 or shani.kruljac@lakelandgov.net for more information.

Visit our web site at: <http://www.lakelandgov.net/publicworks/lakes/adopt.html>