



# Water Awareness Research and Education (WARE) ware-easttampa.com

Spring 2011

## Learning about stormwater in East Tampa at Young Middle Magnet with the University of South Florida

“When it comes to keeping our water clean, WARE does it best. WARE stands for Water Awareness Research and Education, and because of this project, we as students have learned a lot o bewildering, yet interesting information. We have learned about topics like: pervious and impervious structures, the difference between detention and retention ponds, and the art of water sampling. Even though we are not experts o this subject, we are on our way to becoming knowledgeable and responsible water awareness researchers. “ Kanysha Cambell



*Mrs. Porteus & her 8<sup>th</sup> grade math project class taking samples at the pond.*

## Project History

“One of the goals of the WARE project is to help keep ponds clean and healthy. With the help of Young Middle Magnet students, the WARE team walked across the street to the Robert L. Cole Community Lake (a stormwater treatment facility managed by the City of Tampa’s stormwater department) to observe and take water samples. As you read through you will learn about what we did.” Christian Miranda



More inside!

EDUCATIONAL KIOSK – Designed and built in 2010 by USF School of Architecture & Computer Design, Civil and Environmental Engineering; East Tampa Community Revitalization Partnership, City of Tampa, Young Middle Magnet, Lockhart Elementary, Chiles Elementary, King’s Kids Christian Academy.

“The day we went to the lake the thing that caught my eye was the kiosk. The kiosk contained many things like what fish live in the lake and plant life around the pond. It is imperative that a kiosk should be around every lake.” R.

Singh

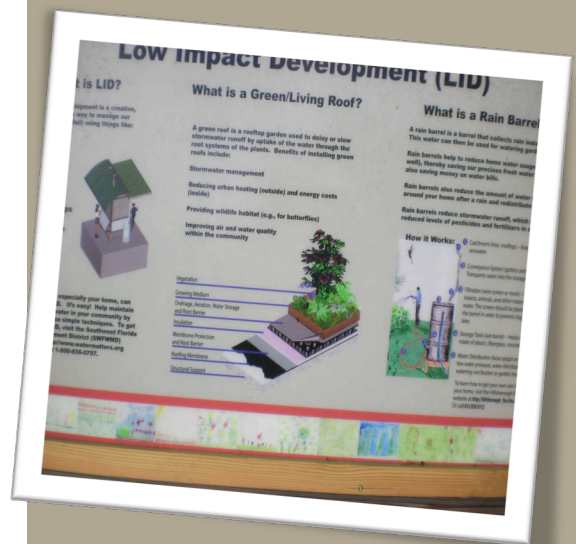
### Pervious & Impervious Structures (AH)

Different types of material can either allow water to flow through or hold it back. Material that allows water to flow easily is pervious. In contract, material that doesn’t allow water to pass easily is impervious.” AH



Kiosk with a green roof & rain barrel collection

LID stands for Low Impact Development. It is an innovative stormwater management approach. LID’s goal is to mimic a site’s hydrology when using techniques that treat runoff close to its source.



Painted by Mr. Talenti & art students at Lockhart Elementary in summer 2010

### Rain Barrels to Collect Rainwater

Rain barrels collect rainwater which can be reused for other things like watering plants and making bird baths. They can be decorated or camouflaged for style. They help to conserve water because it reduces the amount of water we take from the tap. They help to reduce the amount of stormwater that runs off our properties.

cont.



Water Sampling tells us about the water quality. We can also sample to determine the water's biodiversity. Our experience gave us the test results below.

Samples Taken on March 24<sup>th</sup>, 2011 using a Quanta Hydrolab

|                              | Site 1 | Site 2 |
|------------------------------|--------|--------|
| Temperature (oC)             | 24.6   | 24.8   |
| pH                           | 7.3    | 7.8    |
| Dissolved Oxygen (mg/L)      | 6.8    | 6.3    |
| Conductivity ( $\mu$ mhos/s) | 0.302  | 0.273  |
| Turbidity (NTU)              | 19.8   | 16.8   |



**Turbidity: how clear is the water?**

We measured turbidity using the Quanta probe and we also used the World Water Day Monitoring Kit. For that test, we placed a colored disc at the bottom of the sample container. Then we filled the container with our sample. We then compared what we saw with the chart.



# Learning about Drainage Area & Weirs

“My experience working on the WARE project has been tremendous. My favorite part about this project was going across the street to the pond to test the water for its turbidity and its phosphate. I especially liked testing the phosphate because it was interesting to wait and watch to see how the color of it changed. I enjoyed when Ryan (PhD student in Civil and Environmental Engineering at USF) came to teach us the most because he slowly went through how things worked and what to do and also made it really fun.” Phillip Li



## What can you do?

First of all, not treating the area like your personal garbage can help. If you have trash, throw it away in one of the trash cans instead of being lazy. That one little piece of trash could kill animals and contaminate the water and that's not good.

Another thing you can do is pick up after your dog. You would not want it on your lawn. It's also not a good idea to feed the animals.

### Contact Us

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