# Feb 11, 2010 Water Symposium: "The Drink's on Us" :

Led by Chatham Township Environmental Commission, cosponsored by Chatham Borough, the forum at Library of the Chathams addressed drinking water's source, pollution removal, quantity and conservation. 35 people in attendance.

Chatham High School A.P. Statistics students conducted a water taste preference test. Tap won over bottled, raising awareness that tap water should be valued for its quality and low carbon footprint.

Panelists on local tap water: New Jersey American Water representatives Kevin Watsey and Scott Brezinski. Hon. Richard Plambeck represented the Water Utility of Chatham Borough. Other panelists were NJ Department of Environmental Protection (NJDEP) Environmental Specialist Frank Klapinski; Great Swamp Watershed Association (GSWA) Director of Education Hazel England; Passaic River Coalition/Groundwater Protection Committee Director Ella Fillapone; and Chatham Township Planning Board Member and Geologist Lydia Chambers. Flyer Describing "Water in the Chathams" Symposium- February 11, 2010

# Water in The Chathams

The Drink's on Us: Taste Testing Panel Discussion with Local Experts Documentary Film Clips Water Filter Vendors



Thurs. Feb 11<sup>th</sup> 7:30 p.m. Library of the Chathams

What's in the Tap Water in the Chathams? What are the Sources of Your Water?

Participate in a Taste Test: Bottled vs. Borough vs. Township

Should I Buy a Water Filter? Bottled Water? Bring a Sample of your Water and Filter Vendors will do a Select Test on Site

Sponsored by the Environmental Commissions of Chatham Township and Chatham Borough For Questions, contact www.chathamtownship.org/CTEC/EC-contact.html

Admission: Free

#### Article on Feb 11, 2010 Water Symposium:

Chatham Borough NJ News - Chatham Water Quality and Experts Put to the Test by Resi ... Page 1 of 4

August 9, 2010 E:15 PM (August ) 88'F August 100'

TheAlternativePress.com

"Thank you for assisting in amenticing this year's Runi" Spinis Mesoy Spinis Family Service of Advances

Nors & Information

#### Chatham Water Quality and Experts Put to the Test by Residents

Ox Jennifer Jean Miller 2/14/2010



CHATHAN TOWNSHIP, NJ -Residents of Chatham Township and the Borough of Chetham had the opportunity to ask questions about the area's water supplies from the experts and take part in a water tests test at a special program on Thursday, February 13th at the Ubrery of the

Chathema. The event was organized by the Chethem TownShip Environmental Commission (CTEC).

Water in The Chabhams featured a panel of authorities on the area's water suspises, including suppliers themselves and environmental representatives. Panelists including Dirk Plamback of Chatham Boraugh's Water Utility as well as Scott Brezinski, Water Quality Supervisor, and Kevin Watsey, Government Affers Specialist, both of New Jersey American Vister, the company which supplies Chatham Teamship with its water. The environmentakias as the panel included Ella Filapone of the Passais River Coalition, Hazel England of the Great Swamo Watershipt Association, Frank Klasinski of the ND OEP (Department of <u>Environmental Protection</u>) Watershed Henagement, and Geologist Lydia Chambars who is also a member of the Chatham Township Planning Board. Nembers of the CTEC were present at the avent to answer questions, including Kathy Abbott and Pat Collington Dick Borrett moderated the discussion with the panelists on behalf of the CTEC.

"This is not adversarial but a chance for the public to pose questions," Servet said.

Quisitions were first asked of the providers regarding water supplies for each of the municipalities. There were commonatives and alterances between swith but both appeared to have a common goal: to encourage residence to return to drinking tap water in lictu of bothed varieties. The public learned Chatham Borough's water comes from three artesian wells, estractud from nearly 150 feet skiws from the Buried Valley Aquifer system. The Borough registers a per capita use of 10 galons per person per day.

New Jersey American Water supplies Chatham Township with its water from three measure reservoirs that send water into the system as needed. "We have enough is the water supply to meet all towns," self Brenned, who further explained the water is further diverted from the Passaic River and Wanaque Reservoirs as the mein sources, or can be brought from other sources within their network. Chatham Townstip owns 54 miles of water britter and 318 hydrants.

Atheness New Jarsey American Water is a publicly traded company with an overall operating budget of \$220 million for the 181 towns under its care, Chetham Barough is not-for-profit and has a \$1.3

## Alternative Press (continued)

# Chatham Borough NJ News - Chatham Water Quality and Experts Put to the Test by Resi ... Page 2 of 4

#### million operating budget

The woperts on both sides of the panel agreed residents will pay significantly less for tap water than bottled water and can be more assured of its safety then bottled variaties. Watery said water costs, less than a senity a gaton from the tap. On average, his customers pay approximately \$165 per quarter and borough residents pay around \$00 quarterly. Less than 2 percent of this potable water is used for drisking.

Changing the infrastructure to separate potable and non-putable water was a question asked of the panel, which has been done in other states, and which would require a significant amount of infrastructure changes to accomplish. Filippone said the Chathams are very fortunate to be located in a terminal moralne area in which groundwater is extracted from an underground reservoir and where stores are nearly 50,000 years old and which help to clean and guilty five water.

Filiapone said the welfhead protection ordinance in Chatham Bicrough is an important concept to protect the water and said other manufoldibles should have such an ordinance.

Water for the Chathams undergo the strictest of tests to ensure quality and safety and meet federal and state drinking standards. The Borough's water is chlorinated, but not fluoridated. "Chlorine is safe and OK in the water and means the water is clean," Watery said.

One of the warnings which all panelists gave to the residents is to be calchious of duraping prescription medications down the drain or toilet. Pharmacoutesis eventually and up in the waste treatment plant but not every trace is removed. Plantback suggested mixing medications for disposal with coffee grounds or cat later to make them undesirable then send them to the landth.

Sodium in water supplies is another concern. England said studies of the streams show endlam and chloride both showing up. Residents and municipalities are encouraged to rachine their sodium contributions by property using water softening equipment and rock sait. Municipalities are transitioning to sait brine, which lessens the runoff impact.

Brezinski said pharmaceuticels that enter into the raw water will not get into the tap because of an ozone removal system.

Questions areae about security and safety around reservoirs. Both water supplies have had security details increased in their areas to further protect the water reserves.

In addition to watching movie segments relating to protecting water supplies, residents took part in a taste test. There were three jugs which held three separate samples of water. One was with Chathern Borough water, the other Chathern Township, and the third, bottled water. All experts agreed there are no health effects from small, taste or discoloration.

Plamback suggested residents can make water more patable by not drinking water from the cold tap first thing in the morning, and letting it run. It can be put in a pitcher in the refrigeretor for best results. Bottled water was not suggested because the contents are not regulated by the FDA. The pricing of bottled water is 1000 times more expensive than tap. The consumer can spend ims then a penny a gaton from the tap. Chambers said that the average consumer will seend approximately \$1.75 for a 17 ounce bottle of water from the store.

# Alternative Press (continued)

# Chatham Borough NJ News - Chatham Water Quality and Experts Put to the Test by Resi ... Page 3 of 4

Another controversy shared was the exportation of local water, especially by spring water companies, which are not recuired to report bottling procedures. These companies have been criticized for texpling a profit from the local water supplies. In many cases, residents are paying the price again by buying up bottled water from local sources.

What were the results of the water taste tests? Chathem High School students first shared the results of their double-blind tests test at school, which was comprised of residents of the borough, township and neither municipality (usually beachers). Their results showed the strongest preference towards borough water, with the township mater coming in second and Poland Spring Water finishing last.

Americorps New Jersey Watershed Ambassador Adam Osborn conducted the taste test at the event, with participants who Harrett collect as having "more mature palates". Results were revealed later in the evening, with "A" being disclosed as borough water and preferred by 15 percent of the attendets, "B" was buttled water and chosen by 43 percent of the group, and "C" as the township water, being chosen by 15 percent of those surveyed.

The evening was wrapped up with water treatment vendors and nonpmfit groups available with information for attendees. For more information about the Chatham Township Environmental Commission, see their website: http://www.chathamtownship.org/CTEC/

Photo above: Hazel Englanti of Great Swamp Watershed Association samples water in the taste test.

Photo by Jennifer Jean Miller





reambers of the public ask quastions of the water wendors and non-profit groups who were there to provide information about their organizations and services. **Rain Barrel and Composter Kickoff Event April 16, 2010:** Chatham Township led pre-ordered rain barrels and composters distribution event at Chatham Middle School. Co-sponsors were Chatham Township, Madison, Chatham Borough, Summit, and Berkeley Heights

Composters and Rain Barrels Program

Sponsored by the Environmental Commissions of Chatham Township, Madison, Chatham Borough, Summit, and Berkeley Heights

Think SPRING and ORDER your composters and/or rain barrels by

# Friday April 9, 2010

to get the discount price\*

Our Program offers you-our residents and our community members and schools--the opportunity to purchase composter(s) and rain barrel(s) at discount prices, have your purchases delivered free to a convenient pick up location in your area, receive FREE lessons on composting and rain barrel use, and receive a FREE accessory too! "Product pre-payment is required for discount prices.

# Kickoff Event: Friday, April 16, 2010, 7-8 pm

Chatham Middle School, 480 Main Street, Chatham Borough, NJ 07928 Attend the Kickoff Event to pick up your pre paid composters and/ or rain barrels and to get your free lessons and free accessory!

# Save it to Spade it! The Norseman Earth Machine The composter

\* The Earth Machine is the number one selling composter in North America; \$55 Pre Orden/Pre Pay Sale Price

\* 80 gallon capacity, 33" overall height, 33" bottom diameter; approx. 16 lbs

· "Enclosed" composter bin

· Locking Lid

· Easy, snap together assembly

Retrieval Door

· Anchor Pegs

[photo here]

# Soak it--Don't Send it! The Norseman "System" Rain Barrel

. Unique shape and neutral color blends into any garden-scape

- \* 208 litre / 55 gallon; 34" ht, 26.1 diameter; approx 16 lbs; \$70 Pre order/Pre pay sale price
- Constructed of up to 50% recycled materials
- Mosquito mesh keeps bugs and leaf debris out
- . Lid can be screwed onto base for added safety (comes with screws)
- · Easily accommodates existing downspouts

 Overflow hose can be linked to another SYSTERN or can be directed away from the house (photo here)

## ORDER FORM BELOW

#### continued

Save it ~ Don't Send it I

· Composting is nature's way of recycling!

. Compositing helps residents care for the environment, right in their own backyards, while reducing the amount of waste going to the landfifs.

. Composters create a rich, all natural soil nutrient for landscapes, gardens; and houseplants and mulch for your lawn and garden. · Compost also enhances soil's ability to retain moisture (reducing your water bills) and can reduce your retiance on chemical fertilizers (saves you money)

 Composters vs. Compost Piles: the composters offered in our Program enable us to add leaves, grasses, vegetable foot acraps. coffee grinds, and many other kinds of "kitcher/food" waste, since the compost material can be easily turned and the composter has a cover and locking mechanisms. Note that open "compost piles"-- athough good for "yard waste" like grass and leavesopen, accessible, and are usually not turned periodically; so no "klichen/food waste" is allowed in "compost piles" in our area. -ane

#### Soak it-Don't Send it !

Rain barrels out household water bits by up to 40%.

· Rain water-free from chlorine, water treatment chemicals, and toxic pesticides-is an excettent water source for lawns, plants and

Rain barrels provide healthy green lawns and protect your water source quality.

The use of rain barrels lowers municipal water demands and saves energy at water treatment facilities by reducing water pollution

Rain barrels provide and extra source of water in case of drought by catching rainwater from rool drains.

Come learn about composting and rain berrel use whan you come to pick up your pre paid items. Vendor will also have for sale serators, "Presto" bins, and other sessonal accessories.

Yes, reserve mine today! =ORDER FORM due by 4/9/10= Don't Delay, Buy Today! Name Phone Number Email Address

sampan r talar e ag			
am a resident of	of the municipality	of	
i want to buy a c	composter(s), the "	Earth Machine" at \$55 ea	ch (circle quantity): 1, 2, 3,
Total Amount En	closed:		o dogunity). 1, 2, 0 1
My check #	, dated	in the amount of \$	is enclosed

Make checks payable to "Rainbow Environmental Products"

If you are a Resident/School in: Mail form and check to:

Chathern Twp...... Chathern Township Erwire, Commission, 58 Meyersville Rd, Chatham Twp NJ 07928

Chatham Boro...... Chatham Green Initiatives, 54 Feirmount Ave, Chetham NJ 07528

Summit. Marian Glenn, Summit Environmental Commission, 13 Harvey Court, Summit, NJ 07901 

For more information: <u>ctec/pchathamtownship.org</u> or call (973) 635-4600 The Composter/Rain Barrel Program is sponsored by

Chatham Township Environmental Commission: www.shathamlownship.org/CTEC.

Chatham Borough Green Initiatives: www.sustaina0/ec/atham.com

· Madison Environmental Commission: http://gov.rosenel.org/agencies/environmental

· Berkeley Heights Environmental Commission, www.bh.cc.oro/index.html

Summit Environmental Commission: http://www.ci.summit.nl.us/

Updated March 2010 UPDATE: JULY 2010: WHERE TO BUY RAIN BARRELS

# EPA "We're for Water" Contest – July 24 – July 31, 2010:

Two Chatham families, featured in the EPA's national water campaign were the Johnson Family and Abbott Family. The EPA's partner, American Water, monitored the two families' water use over the course of one week and compared it to their usage during a previous week.

The Johnsons won by usng 40 percent less water, while the Abbotts used 25% less water. On August 2, the two families competed in televised, water-saving games outdoors: a shaving, shampooing and gallon guessing.



Johnsons vs. Abbotts: Families compete to save water, raise consciousness

Bally Reard & Rollins

#### Photos byCara Townsend

# Drip

#### Fran Pase 1

When you are waiting for your choser waite to warm on each the sold water in a five-gallon becket and the where warms up, " sold Chrin, excelling and the labor received, from a triand, "Then can what's in the burker; to water AR plants."

Chris and he and his wife date there to police chosens for their daughters, but they acted them to be restricted they every in the middle of a

When all the set of th other frequently used services.

"We had reported our house a few years age." Abbott

SAVING WATER

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The connections between the one to other base based with a gene show-shift event. The two news of the families factor of its a showing compari-tion, which was paper, on the amount of water used while show here. shoving

"We upper papertial and the out-our control. History was hard-as people and no extensio." Christ Johnson wild, heapblane. De work Keenterh Abbedt the first find with 4. Asher, doing with hasherd Secreth and deadston Servit, 11, and Mervitith 4, flord a

Machine Administration Sarah Alibert in the shamper-ing society, industring and trias-ing her hair on them in Sar all's four tings with equal annuages of sector used.

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The Johnson were declared vincers even looks five has need all galaxy of weir to the Alianty' an galaxy of word water.

Assertion Water spokesman forms and the Astronom re-duced finite consumption by 60 parager forcing the next reads, while the Alderte contained consumption by Just 35 con-tants.

in the end, Kathevine (d) hole fundling cruid date vic-315

"It cannability was just for tars, barb, (heard into) could be stored that a tabler councilians," the said. "There are below-local dulage that you can drauge one tart as easily mays, as well."

Acros Monitol: NE-DE-SEP

## Independent Press on EPA "We're for Water" Contest – July 24 – July 31, 2010

SWAR STARTER SALES IN 1 di licit A 113

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# Two Chatham families to compete in national 'We're for Water' contest

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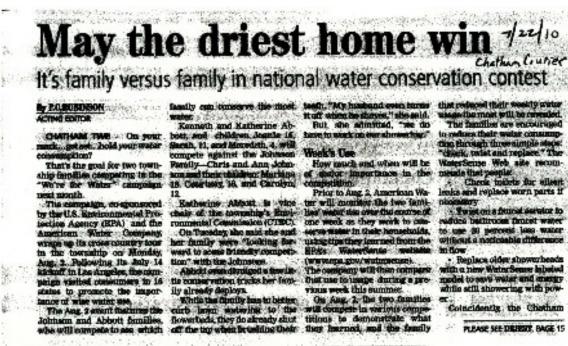
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## Chatham Courier on EPA "We're for Water" Contest - July 24 - July 31, 2010



Twiston a faired service to store builtroom finnet water to use 30 percent loss water without a noticable difference milow

Replace older showerheads with a new Water Sense labeled model to save water and margy while still showering with pow-

Coincidently the Chatham

PLEASE SEE DEJEST. BAGE 15

# States and a state of the state **DRIEST:** Teaching water sense

# HOM PAGE 1

Township Reviewinsenial Commission has a WATER 'Usene' minip this year. The year kicked off with its very successful Weise Sympo-stum and a water films fu-rure and the pisser continued with a free workshop on how rain barrols help to conserve when reduce water folls, re-duce harmful clorm water runoff, and help to re-charge our groundwater and aquifers.

#### Soak It'

wher geogets, and informe-tion to help residents detect and repair to and tribet lacks and included tips on how to asses useary and conserve us-

The West and arthylics likely and arthylics like like west the country tion in Los Angeles.

experts are

educating. consumers on controlling the urge to go with the flow.

经上海公司 网络

planuting the Green Fur of The Chathams. This We're far Water cam-paign is a national offart to aducate consumers about wa-ter-sense labeled products. The campaign, which oc-curs during "peak" weier use sensol in many parts of the country, encourages, con-sumers to adopt simple changes at home to start say-ing weier.

From films on conservation to a 'spokesgallon,' water the with tourists, at effortancy and recording the trip via Parebook. Twit-ton widgets, and the We're for Water Web site.

Water Web site: WaterSettes is a partner-ship program sponsored by the U.S. EDA with the goal of protecting the fature of the patien's water supply by protecting and enhanc-by the market for water-officient products and servic-

American Water, a WaterSense Partnar, is the largest publicly-traded U.S. water and wasterwater utility School students, and the company providing drinking Chatham Community Gor, waterwater and other den. Presently, we are now related services to should 10 planuting the Green Fur of million people in 35 states, as water, wastewater and other related services to shoul 16 million people in 35 states, as well as Ontario and Manito-

he, Caneda. New Jarsay Albertoan Wa-tet, a wholly owned sub-sidiary of American Water, is the largest investor-owned the largest investor owned water atliny in the state, pro-

where stilling in the state, pro-viding high-quality and reli-shife water and/or wasterwater acrutate it approximately 2.5 million people. For more information on the Chathem Township Barl-reaments/ Commission, visit www.clisthemhowship.org/C TBC/indet.html or small us at

# Making a splash with less water: Families win title of biggest savers

# By Dan Goldberg FOR THE STAR 4. KDGEN

It was an unusual result: a rout, but both bearts were winners

The Abboil and Johnson families of Chatham competed last work to see which famtly could save the most water. The contest was part of the commission. We're for Water campaign, sponsored by the Environmental Protection Agency's traded water provider.

The two families competed to conserve from July 24 through July 3]. Their weiter use was measured and compared with an earlier work in the summer,

40 percent less water than they had earlier in the summer, while the Abbotts used 25 percent less water "I was very surprised be-

cause we're pretty thrifty snywey," said Kathy Abbott. who serves on Chatheau Township's anvironmental

The Abbotts and Johnsons took some simple steps to save, including shorter show-WaterSense program and ers Kethy Abbett said she did American Water - a publicly not woter her lawn during the week. She also installed an agratar on all the bethroom faucots, which lends water flow by mixing the water with air

The EPA's WaterSonse program is a public-private part-The Johnsons won by using nership that identifies and

promotes products and programs that help preserve the nation's water supply. Since the program's inception in 2006, WaterSonse has helped consumers save a comulative 46 billion gallons of water and \$343 million to water and sewer bills, seconding to the EPA's Webselew.

The contest in Chatham Township and the We're for Water campaign were almost at teaching the public how simple stops could produce big savings. The contest culminuted Sanday morning with outdoor, head-to-bead events.

Chris Johnson and Ken Abbott competed to see who could shave using the least amount of water. They tied.

Mariana Johnson, 18, and

1.00%

1. 1. 7. 18 AL

LATER TO MARCON

Kenneth Abbott, left, and Chris Johnson compete in the Saver Shever to see who can shave using the least amount of water, one event in a water-saving competition between the families.

Sersh Abbott, II, downed their sold. "We have a sense of the swimsuits to see who could greater good too, a sense that wash their buir the most times in three minutes, using a Wa thing for the environment terSense shower head. Marione won with five.

Star Ledge 2/3/10

"We had fun," Kathy Abboit 243-6235

you are really doing some

Dan Goldborg at New Jarmy Local News Service: (908)



Phile in Times

NJAW Water Education Grant Status Report, October 2010 –On multiple RainBarrel projects and A Vertical Hydroponics Garden and Aquatic Ecosystem Demonstration Tanks at Chatham High School (made possible through May 2010 NJ American Water Company \$5,000 Grant to Chatham Township Environmental Commission for Educational Programs)



#### October 2010 Status Report NJAW Environmental Grant

July 2010: Our Rain Barrel Program (Soak It – Don't Send It) continues to be highly successful. Our Program has been requested nationally! (The Dept. of the Interior's U.S. Wildlife Fish & Game is implementing our Program --including installation of a rain barrel donated to CTEC by NJAW at a National Landmark!) The Great Swamp National Wildlife Refuge will use our Program at its Fenske Visitors Center and the CTEC-NJAW rain barrel is a featured education/demonstration station! Educational information about water protection and water conservation and etc. was provided and will be displayed for visitors

July – August 2010: Chatham Township was selected as the wrap up location for the U.S. EPA's "We're for Water" crosscountry campaign and CTEC provided extensive media and we of course provided educational information about water conservation in everything we did during the campaign here—articles, web postings, videos, speaking engagements, and more. We worked with NJAW and the U.S. EPA on this successful U.S. EPA national water conservation campaign.

August 2010: The Morris County Parks Commission has requested our Program--the GSOE Center is implementing our Program now. Installation of a rain barrel, donated to CTEC by NJAW, has been completed at GSOE and has been set up as an education-demonstration station! We involved the Girl Scouts of Chatham Township--three Girl Scouts from GS Troop 1956 earned their GS Silver Award as a result of the help they provided on this project. The girls installed a rain barrel and prepared educational materials for the GSOEC. The rain barrel was donated to CTEC by NJAW. The Morris County Parks Commission is so pleased with the program to date, that they have already targeted a second park-- Mt Pyramid Park is targeted next.

#### September 2010:

- September 11 was our Green Fair and our Environmental Commission's booth featured water conservation and water
  protection educational displays—with outreach materials provided by NJAW. In addition we hosted more than a dozen
  non-profit environmental organizations at the Green Fair, many providing the public with water conservation and
  protection information. As a result of our Program, funded in part by NJAW's Environmental Grant, Chatham
  Township Girl Scouts Lexi Evan, Ani Shannon, and Meg Peckham of Troop 1956 were able to learn about
  water protection & conservation and rain barrels and they made their own rain barrel for their display for the Green
  Fair. The girls awarded one lucky Green Fair attendee the girls' rain barrel. Girl Scouts from The Chathams' Troop
  510 were also on hand to demonstrate a backyard composter and they taught the public the 'dirt' on composting—
  including how composting saves water usage. A key feature of our Green Fair was water conservation and local
  plumbing and "green" landscaping vendors featured the EPA's "Water Sense Fixtures" and also efficient irrigation and
  landscaping systems which conserve water.
- we assisted two local elementary schools with the implementation of our Program in their schools and with the installation
  of a rain barrel—donated to CTEC by NJAW
- we assisted the local high school with the implantation of our Rain Barrel Program and our Composting Program (composting saves water usage)
- We assisted the high school science teacher and Student Environmental Club with the planning of various aquatic ecosystem
  demonstration tanks (which will be designed by CHS CAD students and cared for by CHS E-club and earth/environmental
  science students). Students will perform experiments to learn the effects of their actions on water.

\*The Chatham High School Hydrosphere Project: Sustainable Construction Using Recycled Materials Project Collaborators: Christopher Duvall and Jason Mariano

#### permanent features.

Another unexpected problem was the need to change the C139 lab faucets to fit the aquarium vacuum, which is needed for twice-monthly water changes to maintain the aquaria. Luckily, John Cataldo's Buildings and Grounds crew developed and implemented a solution within one day.

The last unexpected problem was working with John Cataldo's Buildings and Grounds crew to develop an effective way to harness rainwater for the rain garden. John's crew P. 3

has been very open and responsive regarding the creation of a rainwater collection system, but the rain garden drip irrigation has not yet been installed since the promised roof/gutter system has yet to be installed in the CHS courtyard where the rain garden is located.

## Effectiveness of the Chatham High School Hydrosphere Project, 2010-2011

The Hydrosphere Project was very effective. Tank donations were accepted and materials were ordered during the Summer and Fall 2010 semester for the aquatic ecosystem demonstration tanks. The original goal was to purchase three 30-gallon tanks to showcase a variety of aquatic ecosystems. Thanks to the use of Craigelist and Ebay, and the matching funds from the Chatham Township Environmental Commission to purchase ancillary supplies, (see Figure 8) the following was purchased with the grant funds:

 75-gallon aquarium and cabinet stand with hood, light, heater and filter for \$250 (Central American Rivers tank, see Figure 2)

 55-gallon comer aquarium and stand with hood and light for \$125 (African Rift Lake tank, see Figure 3)

 Four 10-gailon tanks and one 5-galion tank with several lights, hoods and heaters for aquatic ecosystem experiments for \$100 (see Figure 5)

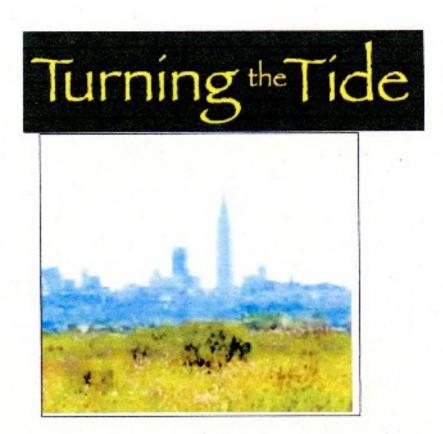
4. Handmade wood and glass reptile cage for \$152.50 (see Figure 4)

# The ability to purchase re-used materials online was key to providing results that were significantly greater than the original project goals and also gave students examples of living more sustainably through the re-use of materials.

Three ecosystems are represented by the two large tanks and the reptile cage. Norbert the bearded dragon represents a desert blome. Students have learned about Norbert's native habitat in the Australian desert, where moisture is acarce and sunlight is abundant. Norbert's desert ecosystem is contrasted with the two aquaria, which represent the rivers of Central America and the rift lakes of Eastern Africa.

The 75-galion aquarium primarily houses guppies, platys and mollies, species found in

*Turning the Tide* film presented on May 12, 2011 about the ecological value of the NJ Meadowlands



# THURSDAY, MAY 12, 7:30 PM, LIBRARY OF THE CHATHAMS

# MAY IS NATIONAL WETLANDS MONTH

Since the time of the Pilgrims, more than half the wetlands in the lower 48 states have been destroyed. Often misunderstood, America's wetlands were commonly seen as wastelands – too wet to be easily built upon or farmed, yet a perfect breeding ground for mosquitoes. Now recognized as a critical natural resource, the tide is turning for wetlands.

This film showcases the hidden beauty of the tidal areas in and around the Hackensack Meadowlands. <u>Travel these wetlands and be surprised what you see!</u>

## Discussion after the Film led by Borough Councilman Len Resto

### Tips on saving water and money inside and outside, including use of rain barrels

# FREE ADMISSION AND REFRESHMENTS

Sponsored by the Chatham Township Environmental Commission and the Chatham Boro Green Initiatives Committee

For more information, contact:: Cindy Steffens, Chetham Boro Green Initiatives Committee, 973-701-0963, steffenscindy@yahoo.com.

## Alternative Press Article describing Turning the Tide Presentation:

Turning The Tide, Film About Hackensack Meadowlands, To Be Shown At Library Of The Chathams : The A ... Page 1 of 3

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# The Alternative Pres

Article » Chatham Borough | Announcements | Garden State Green , Arts & Entertainment

# Turning the Tide, Film About Hackensack Meadowlands, to be Shown at Library of the Chathams

by Chatham Borough Green Initiatives Committee at 02:28PM on Friday, April 29 2011

May is National Wetlands month! See the beautiful film, Turning the Tide, on Thursday, May 12th at 7:30 p.m., at the Library of The Chathams

Since the time of the Pilgrims, more than half the wetlands in the lower 48 states have been destroyed. Often misunderstood, America's wetlands, formerly known as swamps, were commonly seen as wastelands--too wet to be easily built upon or farmed, and swarmed by mosquitoes. The word "swamp" still has a negative connotation, and hence the need for the current, more positive term "wetlands."

Wetlands filter our drinking water, and are essential breeding grounds for a huge diversity of fish, amphibians and birds. Now recognized as a critical natural resource, the tide is turning for wetlands.

"Turning the Tide" showcases the hidden beauty of the tidal areas in and around the Hackensack Meadowlands. Travel these weflands and be surprised what you see!

Discussion after the film will be led by Chatham Borough Councilman Len Resto, and Chatham Township Environmental Commission Associate Dick Barrett.

Admission is free.

Tips on saving money by conserving water, indoors and outdoors, including the use of rain barrels, will be provided.

An exhibit on water conservation, developed by the Chatham Township Environmental Commission, will be on display.

The Eco Film and Discussion series is sponsored jointly by the Chatham Township Environmental Commission, Chatham Borough Green Initiatives Committee.

# Rutgers Rain Barrel brochure distributed at Turn of the Tide Event



**Rutgers Rain Garden brochure distributed at Turn of the Tide Event:** 







1)

de ain gardous are where form mosts function and the guilter meets the ground. Simply put, rain gardens are gardens that are specifically designed to acake up rain water, mainly from noofs, but also from driveways and patios. Water goodaws lose Live regular flower ganview but they are more when it rains, a rain gerden fills with a few Lucines of water and allows the water to slowly filter into the grownal rather than manning off to the stand dralms. Compares to a patent of lawn, a nain garden allows about 20% more water to spele into the ground! They also add beauty to neighborhoods and provide wildlife habitat



# Choosing a Spot

Nam gardens can be besigned to calch valler from a roof or even a criveryay. When choosing a location for your parcon, provide an area that is enablishing for or that has a slight stops. Noop the follow-ing considerations in mind:



Rain participation are NDT a solution to ever Here generate an englist a solution to we ense if the gender much have good channess so that within one solet is well of them when a control. The velocity pervent your generate from becoming a more used is several. WT.

- The parties should be at least 10 Ref. away from the house.
- The garden should receive full or perfial sunight.
- Avoir the area over a septic. SAUGHTL.
- The period need activity as rotative rocks that will trans-port sectors minful to a proper location and your registers text ()

# Presare

### How they

The size of your garden will depend upon 3 main factors: The size of the darkege area.
 The type of solis or the size.
 The digits of the gorder.

23 A spical nucleosial min garden ranges from 190 is 300 square faot Carl Carnel Cooperative Sciences for aesistence in calculating the dimensions of your guides.

ala. Ready to Dig?

- Use string to outline the shape of your garders
- On a slope, more digging will be required on the uphil side. Use extra solito build a bern on the downhill side.
- + The bottom of the garden
- must be flat & level
- Don't forcet to make an overflow for heavy rain events!

Before you clig call The NJ One Call Hottine (1-800-272-1000) tolocate underground villey linest





Plant Selection

Dr: On

plug. The hole i

to coop encegh

Choose starts that have a variety of neights, testures, and alsons times. It is important to select plants that can tolerate both well and dry conditions, and that are suited to the eus/ shado exposure of your parties.



