



SEMI ANNUAL REPORT

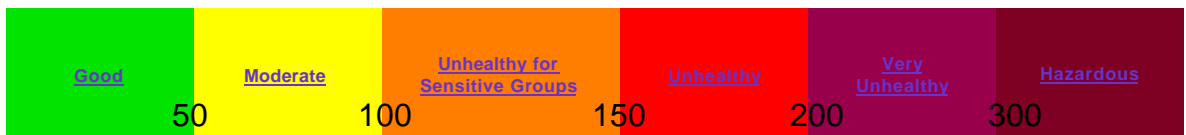
July—December 2008

Palm Beach County Health Department Air Pollution Control Program



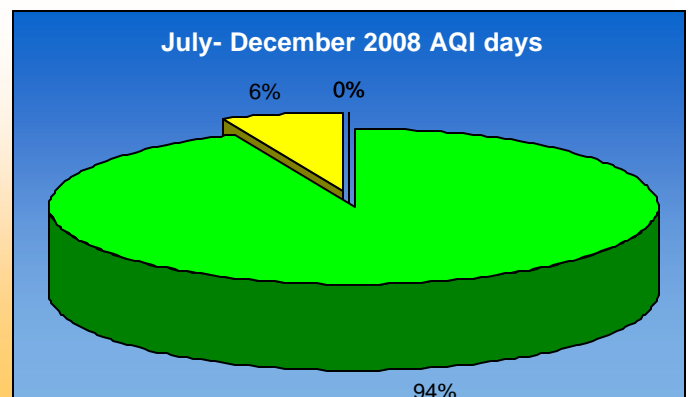
The purpose of this report is to summarize the accomplishments of The Palm Beach County Health Department's Air Pollution Control Program, and share information regarding new developments and issues related to air quality.

Poster design by Marielle Dagasson age 9 from Beacon Cove Elementary School, Jupiter, Florida. Pollution Prevention Coalition's 2008 poster contest winner.



Air Quality Index

The Air Quality Index (AQI) is a uniform method of reporting daily air pollution levels along with associated health effects. Air pollution levels are obtained from PBCHD's network of monitors on a daily basis. An AQI value is determined for each of the monitored pollutants, and the highest value is used to describe the air quality for the day. The AQI is provided 7 days a week, and can be obtained by calling (561) 355-3962 or visiting the PBCHD web site : www.pbchd.com



Customer Service



Customer Service Week : This years CS week was held

the second week of October. All health department offices decorated there lobbies for this event. Important in-



formation was distributed to customers indicating the services we offer. CS week is a great time to showcase our commitment to customer service and raise awareness of all programs in the Department Of Health.

Air Outreach At Stony Brook Apartments in Riviera Beach, Fl.



PBC School District's Teachers Symposium

Alternative Energy Trends Talk

In August several staff members of the air pollution control program attended the Palm Beach County teacher's symposium to give



a talk on alternative energy trends for our future generations.



In addition to the talk, our air program and P2 displays were set up in the cafeteria. This gave teachers the opportunity to ask questions and collect many information brochures.

Lake Worth's "Evening on the AVE"

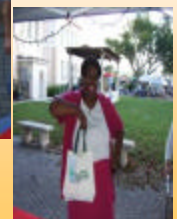
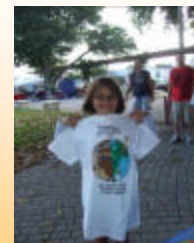


P2 members Genevieve Bajwa (Tri-rail) and Jon Barlow (PBCHD).

Spreading the word about pollution prevention and suggesting every day ways to get involved.



Many giveaways to promote pollution prevention.



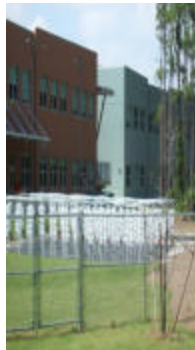
Green building tours presented by USGBC South Florida (Treasure Coast & Palm Beach Branch)

The South Florida chapter of the U.S. Green Building Council has sponsored several tours of green building. Air program staff members have participated in these opportunities.

The principle behind green buildings is to preserve natural resources through thoughtful and conscientious design. In October the tour was at the Pine Jog Elementary School in West Palm Beach. Pine Jog school was built to achieve LEED Gold certification and is the first to do so in South Florida. This school was



built in tandem with another green building the Pine Jog Environmental Education Center (EEC) for Florida Atlantic University. The primary goal was to create a harmony between the nature preserve, the school and the EEC Building.



Building materials maximize the use of regional and recycled materials.

The Rolling Sunlight Vehicle "Global Warming Story Tour"



The global warming story tour of America stopped at Florida Atlantic University Jupiter to show case its sunlight vehicle.

This vehicle runs on bio-diesel fuel and features 256-square feet of solar panels ,which provide enough energy to power three energy efficient homes. During tours the public could sample smoothies made from blenders powered by the sun bus as well as write letters on computers also powered by the sun to their congress person promoting alternative energy and save our planet.



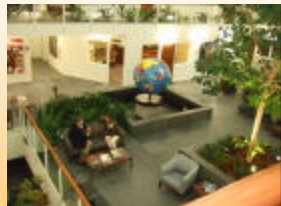
Solar power is a cleaner and cost efficient alternative to fossil fuels.

Green Tour.. The Living Building

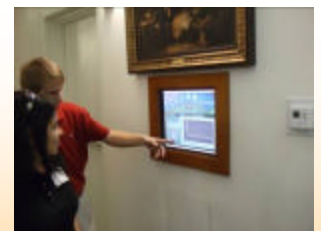


Court yard view from the third floor.

The second tour opportunity was at The EcoCentre– The living Building In Lake Worth. It's a 33,000 sq ft, four-story structure incorporating natural "living" systems and "green technologies designed to save energy , reduce CO2 emission and water consumption, and create an overall healthier environment. The EcoCentre is Florida's first green technologies office building. The project is registered to achieve LEED Gold Certification.



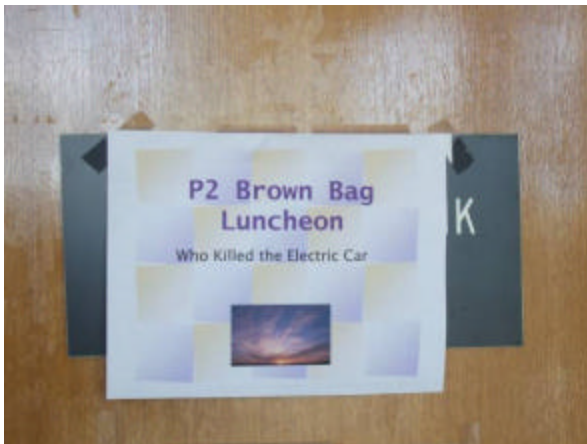
Second floor waiting area.



A monitor on each floor shows energy and water usage and the amounts saved by the system.



Students at Discovery Key Elementary in Lake Worth take an active approach to learning about alternative energy.



During P2 week members of P2 and others gathered for a brown bag lunch and watched the Movie "Who Killed the Electric Car". A discussion about electric cars and alternative energy for mobile sources followed.

P2 Essay Contest for students:

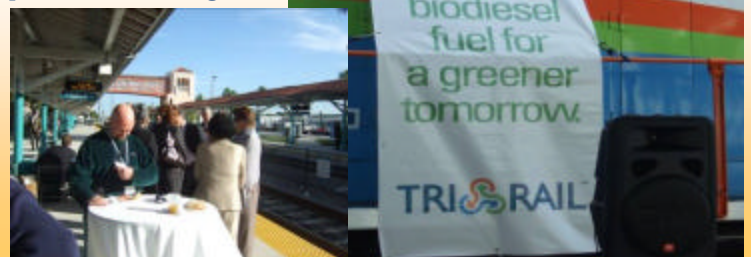
To celebrate National Pollution Prevention Week, September 15-21, 2009 the Pollution Prevention Coalition of Palm Beach County held an Essay Contest for our county's middle and high school students. The contest helps build awareness and educates persons about the importance and benefits of practicing pollution prevention. This year's theme was **"The Future of Alternative Energy In South Florida"**.

Sixth through twelfth grade students were asked to submit essays to their teachers. The participating schools forwarded the best essays to the coalition. Judging was based on relevance to the topic, creativity, focus, word choice, detail, support, and personalization of the message. The prizes were donated by coalition members and supporters, and not only the winning students but also their teachers were rewarded!

P2 First Poster Contest:

P2 1st Annual Poster Contest: This year was the first year P2 offered Palm Beach County students (kindergarten through fifth grade) an opportunity to participate in P2 week. The poster contest had the same theme as the essay contest "The Future of Alternative Energy In South Florida" as well as the same judging criteria. The posters will be displayed in P2 reports, a calendar, and possibly on tour at local libraries. Our 1st place winner featured on the front page is Marielle Daggassan a student at Beacon Point Elementary in Jupiter. There were two second place winners Steven Holtz; Discovery Key Elementary, Lake Worth and Imani Brown; Dr. Mary McLeod Bethune Elementary, West Palm Beach and one third place winner Carlos Andres; Highland Elementary, Lake Worth. The first through third place winner as well as eight additional students who received honorable mention will be selected and displayed in a Calendar .

South Florida Regional Transportation Authority -Tri-Rail announced they will be running their trains on 99% bio-diesel. The event took place October 29, 2008 at the West Palm Beach station. There were many speakers including the Administrator of the Federal Transit Administration, James S. Simpson. Several P2 members attended this event to show support of Tri-Rail's leadership toward reducing pollution at its source.

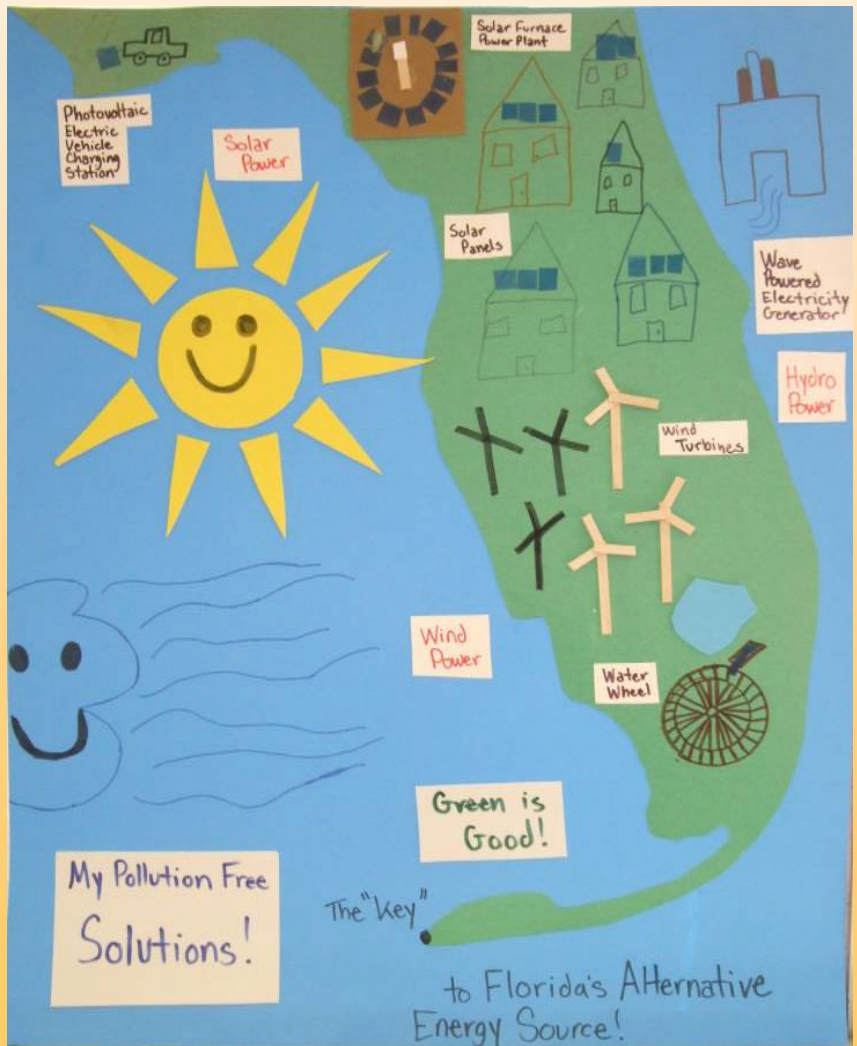


...Where Sustainable Practices Begin

P2 Week September 15-21, 2008



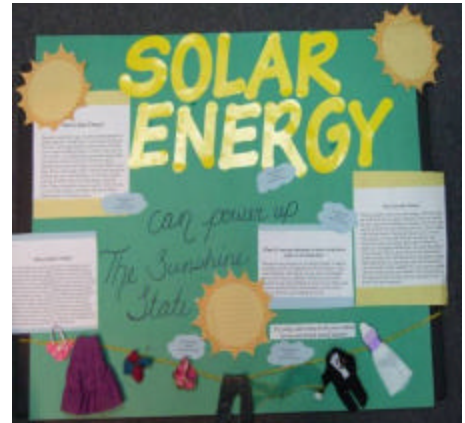
1st Place winner
Marielle Dagassan



The Future Of Alternative Energy In South Florida.



Shared Second Place Winner
Imani Brown



Second Place

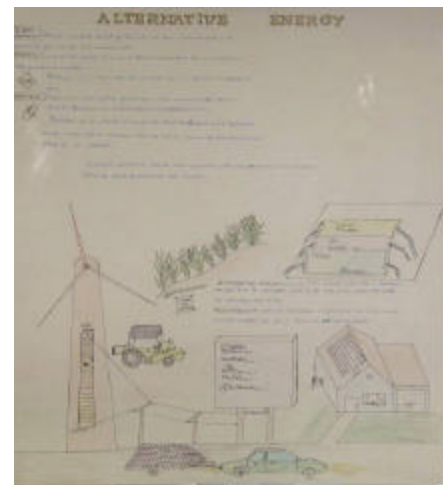


Shared Second place winner
Steven Holtz



Third Place

winner
Carlos Andres



Traffic Survey & Express Bus

On April 1, 2008, a traffic study was initiated by the PBCHD to determine if commuter buses operating on the west to east corridors of traffic in Palm Beach County would reduce traffic and vehicular emissions. The study concluded July 15, 2008 and it determined that even one dedicated commuter bus would be able to remove up to 40 vehicles per day as well as keep 563.4 kg of volatile organic compounds (VOC's), 52,800 kg of carbon monoxide (CO) and 417 kg of nitrous oxide (NOx) from being emitted into the atmosphere. Also, with the current price of gasoline, it is estimated that the average driver could save up to \$100 per month in fuel costs.

The Wellington Express Bus route was an indirect result of the Traffic Survey. Palm Tran, with the assistance of the Department of Health, determined that an Express Bus route from Wellington to downtown West Palm Beach would be beneficial to the people in that community. The action was approved by the Village of Wellington council in October and construction for a park and ride is scheduled to begin in January 2009. This would be considered a pilot program and only one bus will be scheduled to run this route. The route will start near the Mall at Wellington Green and go east on Southern Blvd with one stop at the Tri Rail station on Tamarind and two stops (to be determined at a later date) in downtown West Palm Beach.



Location of the future Park In Ride lot for Wellington express bus route.

AIR COMPLAINT INVESTIGATIONS

Highlights of registered complaints with the mobile sources program:

Tri Rail switchyard on Okeechobee Blvd

- Generators were brought in to limit the amount of time the trains would sit at idle

Heavy duty smoking vehicles

- referred to DEP

Idling vehicles

- Contact made with offenders and anti-idling information distributed

Fumes emanating from a neighboring gas station

- A station visit yielded no definitive emission results. The Palm Beach Fire Department was also notified. Their investigation also yielded no violations.

Possible Freon release from the improper disposal of refrigerators

- Freon complaint referred to EPA Region 4 and PBC Code Enforcement

Smoke and oil discharge from a boat refurbishing yard

- Multiple complaints about this location over several years. The Boat Yard is in compliance with all state and local regulations.

Idling Reduction Program



On December 15, 2008 Florida Administrative Code Rule 62-285-420 Heavy Duty Vehicle Idling Reduction went into effect. *This rule applies to any heavy-duty diesel engine powered motor vehicle.*

It states: Owners or operators of heavy-duty diesel engine powered motor vehicles are prohibited from idling for more than five consecutive minutes. However, there are a number of exemptions for this requirement under the rule. PBCHD is currently preparing brochures for awareness and distribution of this information.

Owners or operators of heavy-duty diesel engine powered motor vehicles are prohibited from idling for more than five consecutive minutes. [Rule 62-285.420(2), F.A.C.]

Exemptions- The idling restriction of this subsection 62-285.420(2), F.A.C. shall not apply:

- To idling while stopped for traffic conditions.
- To idling of buses 10 minutes prior to passenger loading and when passengers are onboard if needed for passengers comfort.
- To idling of an armored vehicle in which a person remains inside the vehicle while guarding the contents of the vehicle or while the vehicle is being loaded or unloaded.
- Police, fire, ambulance, public safety, military, or other vehicle being used in an emergency or training capacity.
- If idling is necessary to verify the vehicle is in safe operating condition either as part of a daily vehicle inspection or as otherwise needed.
- If idling is necessary to accomplish work for which the vehicle was designed.
- If idling is necessary to operate defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency, but not solely for comfort .
- To idling while the driver is sleeping or resting in a sleeper berth. This exemption expires at midnight September 30, 2013.

TESTING OF POLLUTANT EMISSIONS

In 2008, ninety-three pollutant test reports for 20 emission units at 12 facilities were conducted. Eighty-nine of these tests were witnessed by staff. The air compliance program witness stack tests and reviews the reports of those tests for various regulated pollutants. Compliance is verified with emission limiting standards established in an air pollution source's permit.

The types of facilities tested were:

- Cogeneration sites that convert waste to energy
- Fossil Fuel Fired Electric Generating facilities
- Asphalt Plants
- Hospital Incinerators

The types of tests conducted were:

- Particulate Matter (PM) tests
- Volatile Organic Compounds (VOC) tests
- listed Hazardous Pollutants (HAP) tests
- Nitrogen Oxides (NO_x) tests
- Carbon Monoxide (CO) tests
- Sulfur Dioxide (SO₂) test
- Dioxin/Furan test

The particulate sampling train uses a heated probe equipped with a nozzle to extract emissions from the stack. The sample remains heated until it passes through a filter that captures the particulate. The gases continue through a condenser that extracts water and then through a dry gas meter to determine the amount of sample extracted from the stack. The filter is desiccated and weighed to determine the weight gain due to the particulate collected on the filter. This information and other data collected in the field are used in calculations that determine the amount and/or concentration of particulate emissions emitted from the stack. The following is an example of a Method 5 sampling train being used to extract a stack sample:



In order to enhance the ability of our inspectors to witness pollutant tests and review test reports, three of our inspectors attended EPA's Air Pollution Training Institute course (APTI-450) on Source Sampling for Pollutants (EPA Methods 1 through 5) in November. The primary emphasis of this course was particulate matter stack testing methods.

In addition to the above EPA training course, the compliance staff has been trained in-house in the use of a computer program to aide in the review of particulate test reports.

EPA provides similar training on testing methods for VOC, NO_x, HAP (Misc. Metals and Dioxins/Furans). Attending such courses enhances our inspectors' abilities to assure that tests for these pollutants are conducted properly and test results are assured to be valid.

Air Pollution Control Activity Summary**Jan - Dec 2007****Jan- Dec 2008**

Facility Inspections: All licensed and permitted air pollution facilities are inspected annually. Sources out of compliance may receive additional inspections.	334	248
Complaint Investigations: All air pollution complaints are investigated and resolved or referred to the appropriate agency.	47	158
Open Burning Inspections: PBCHD authorizes open burning for land clearing purposes. Each project is inspected to ensure air pollution compliance.	6	7
Asbestos Inspections: The air program is committed to inspecting at least 75% of all asbestos abatement and demolition projects.	376	262
Permit Requests and Plan Reviewed: PBCHD has been delegated the authority to issues State permits for certain classes of air pollution sources. PBCHD also issues County licenses and approves plans for vapor recovery installations at fuel dispensing facilities.	64	49
Enforcement Actions: Actions range from warnings under a notice of noncompliance to cases resolved through the Environmental Control Hearing Board or negotiated through consent agreements.	36	30
Enforcement Penalties: This shows total penalties collected for air pollution violations. All penalty monies are deposited in Palm Beach County Pollution Recovery Trust Fund.	\$54,750	\$50,030

National Ambient Air Quality Standards Revised for Lead

On October 15, 2008, the U.S. Environmental Protection Agency (EPA) revised the national ambient air quality standard (NAAQS) for lead. EPA lowered the primary (health based) standard from 1.5 micrograms per cubic meter to 0.15 micrograms per cubic meter. The new standard is based on a three month rolling average.

The initial lead standard was set in 1978. New evidence on the health hazards from airborne lead exposure has prompted EPA to revise the standard. Children are especially susceptible to the effects of lead. Exposure to low levels has been linked to adverse effects on IQ, memory, and behavior.

The single largest source of lead emissions in Palm Beach County is the Solid Waste Authority Resource Recovery Facility. The facility reported a total of 0.759 tons of lead emissions for 2007. The new EPA rule requires lead monitoring for sources that emit one ton or more of lead. The rule also requires lead monitoring in areas with populations greater than 500,000 people. However, given that Palm Beach, Dade and Broward counties are combined in the same statistical population area, it is likely that only one monitor for the entire area will be required. PBCHD had previously conducted lead monitoring but it was discontinued in 1999 because all values were below the detectable limit.

2008 Air Quality Index Palm Beach County

Month	days	Good Days	Moderate Days	Unhealthy for Sensitive Groups Days	Unhealthy Days
July	31	29	2	0	0
August	31	27	4	0	0
September	30	30	0	0	0
October	31	29	2	0	0
November	30	28	2	0	0
December	31	30	1	0	0
Total	184	173	11	0	0
Percent(%) to date		94.0	6.0	0.0	0.0

AQI values include all Parameters

Childhood Lead Poisoning Prevention



The Centers for Disease Control and Prevention (CDC) describes lead poisoning as one of the most common pediatric environmental health problems in the United States (CDC, 2008). Hundreds of children are diagnosed with lead poisoning each year in Florida. Life long effects, such as lowered IQ, learning disabilities and behavioral problems can result from lead exposure. At very high levels, seizures, coma, and death have also been reported. Lead poisoning often occurs with no obvious symptoms, and therefore it frequently goes unrecognized.

Individuals of all ages and from all social and economic levels can be affected by lead poisoning. However, children under the age of 6 years are considered to be at increased risk because they tend to put their hands or other objects into their mouths, they absorb a greater percentage of lead, and their developing bodies are more vulnerable to lead's effects. Children at the greatest risk are those 9 months of age to 2.5 years of age and those living at or below the poverty line that live in older housing.

A blood lead test is the only way to know if a child has been exposed to lead. Screening children for lead poisoning allows for early identification and treatment, and reduces the chance that an exposed child will suffer permanent neurological damage.

Lead poisoning is completely preventable. There is no natural level of lead in the blood. Recent studies show that lead may have harmful effects even at very low levels. This underscores the importance of preventing even low level exposure by controlling all lead sources in a child's environment.

In 2006, the Palm Beach County Health Department (PBCHD) was awarded a grant to establish the Palm Beach Childhood Lead Poisoning Prevention Program (PB CLPPP). The program operates under the Division of Environmental Health and Engineering (EHE) and works closely with Epidemiology, Clinical Services, Laboratory and other health department programs. The goals of the program are to:

- provide families, communities, and professionals with the knowledge and tools needed to protect children from lead poisoning
- coordinate lead source identification
- help promote lead hazard remediation efforts which minimize childhood exposure to all lead hazards
- promote awareness about the Florida Lead Alert Network which disseminates information about recalled toys and other children's products
- ensure at-risk children are screened for lead poisoning and establish working relationships with stakeholders in the community who can help implement a county-wide elimination plan

During the past year staff began using a new portable blood lead level analyzer to conduct screenings of uninsured children less than six years of age. This analyzer is able to obtain screening results in a matter of minutes. Parents can then take the results of these screenings to their physician for follow-up. Last year, free screenings were held at several locations in the county and additional screenings are planned for 2009.



The Division also has several EPA -certified Lead Risk Assessors who conduct investigations of cases of lead poisoning in children and work with the Division of Epidemiology to identify the sources of lead exposure and ways to eliminate it. Parents are also provided information about these screenings for physician follow-up.



Please contact Robert Anderson or Julia Holtzhausen at 355-3070 if you would like any additional information about childhood lead poisoning prevention.

Radon Ready!!!!



EPA has designated January as National Radon Action Month. The aim of National Radon Action Month is “to increase the public's awareness of radon, promote radon testing and mitigation, and advance the use of radon-resistant new construction practices”. Radon is reportedly the second leading cause of lung cancer, after cigarette smoking. Contrary to popular thought, radon is an issue in Florida.

EPA has determined Palm Beach County to be of a low potential risk zone for radon, meaning they have predicted an average indoor radon screening level to be less than 2 pCi/L (Pico curies per liter). This designation is based on the following indoor radon measurements; geology; aerial radioactivity; soil permeability; and, foundation type. Although 2 pCi/L is under the 4 pCi/L level of concern, no level of radon is safe. Studies have shown that a low level of radon exposure over a long period of time is more dangerous than a short-lived, high level of exposure. Any exposure to radon can increase one's risk of lung cancer.

As most of you know, radon is a colorless, odorless, tasteless, naturally occurring gas found at low concentrations in outdoor air. Radon gas can accumulate in buildings and reach unsafe levels, especially in confined space or trapped buildings.

Florida has a mandatory radon testing program for various public facilities, such as public and private schools, state licensed day care centers, and 24 hour care facilities such as nursing homes and hospitals. This public testing information is now available for public use so that Floridians may make informed decisions concerning the care and safety of their loved ones.

Jaime Morales and Julia Holtzhausen of the Palm Beach County Health Department (PBCHD) Environmental Health and Engineering are now equipped to tackle this health threat. During the months of October and November 2008, Mrs. Julia Holtzhausen and Mr. Jaime Morales attended the week long training course in Ft. Lauderdale to learn all about radon and various methods of testing. Both Environmental Specialists passed the state exam to become certified Radon Measurement Technicians. In November, Jaime Morales took the challenge one step further to become a state certified Radon Measurement Specialist. Jaime is now able to evaluate, interpret and advise the public with their radon test results.

In conjunction with Palm Beach County's Child Care Licensing, Mrs. Holtzhausen and Mr. Morales will assist the Child Care Program in its administrative and mandatory testing in all state-licensed care facilities. They will work together to provide public education, professional advice about radon and its health effects, as well as the interpretation of results.

PACE EH seeks to Aide residents after tropical storm Fay.



Speaking with residents.

PACE-EH is an acronym for Protocol for Assessing Community Excellence in Environmental Health. PACE EH is a community based project that helps identify environmental health issues and concerns collectively with community residents and environmental health workers. The PACE EH project has been a great entity in the air pollution control program since 2005 and is currently working in three communities in Palm Beach County. In the spring of 2009 PACE EH will be starting its 5th project, a community located in Delray Beach.



Flooding in East Lake

Village ,Pahokee



Triangle Park in
Canal Point

In August two PACE EH communities in western Palm Beach County were greatly affected by tropical storm Fay. These communities experienced wind and water damage. PACE EH coordinator Mike McGinnis went to these communities to assist residents in their clean up efforts.



After the flood

Luckily most residents reported little to no damage to their properties but due to the high standing water, mosquitoes were a potential problem. Mr. McGinnis aided these residents by passing out mosquito repellent and information brochure to keep residents informed. Mr. McGinnis also surveyed that damage at Pahokee City Hall and discussed with the city's staff that the cleaning of the drainage ditches in East Lake Village earlier in the year helped prevent more destruction of property after this storm. The city was also advised to continue maintaining those drainage ditches.

P2 Poster contest Honorable mentions: (Students L-R)

Tanashia Governor, Carla Exposito, Breanna Guevara, Jaquelyn Ramirez, Dalgis Mosqueda, Michelle Salazar, Alicia Landron, Kaitlyn Donahue and Alex Luttin.



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