



Acreage investigation latest news.

Residents enjoy living in the Acreage.

Health Department (FLDOH) continues to watch for adverse public health affects.

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## A message from: FLORIDA'S STATE SURGEON GENERAL

The Florida Department of Health has been diligently working on behalf of Acreage residents in an effort to identify a potential cause of the elevated levels of pediatric brain and central nervous system cancers that occurred from 2005-2007.

This study involved a comprehensive analysis process that included input from multiple agencies.

After testing the groundwater, soil and gamma radiation levels in the Acreage Study area, the investigation affirmed that the community is safe for residents and visitors.



Photo by Tom Brown

This study was conducted with the expertise of the Florida Department of Environmental Protection (FLDEP), the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Environmental Protection Agency (EPA) whose

concurrence from the numerous environmentalists, epidemiologists, statisticians, physicians, and health organizations is that the Acreage is a safe place to live and no risk factors were found associated to pediatric brain cancer.

Our epidemiologists will continue to monitor cancer rates in the area for any indication that another increase is occurring.

In the meantime, the Department of Health will continue to work with the families whose children have been affected by cancer.

**Ana Viamonte Ros, M.D. MPH**  
Florida State Surgeon General

## Actions of the Investigation

- Review cancer rates in Florida, Palm Beach County, and further define the suspected area within the zip codes 33411, 33412, 33470.
- Utilize Census blocks and County tracts to better define the area within the three zip codes. Population numbers were recalculated to better reflect the current population.
- Reviewed all cancers from 1995 through 2007.

- Florida Department of Environmental Protection tested water in 50 locations throughout the community to give a baseline for industrial and agricultural products that might be found in the surficial aquifer.
- Elevated levels of pediatric brain cancer especially among females were found in the years 2005 to 2007 and prompted further environmental testing for

- radionuclides, soil, and water in over 70 locations.
  - A case control study with the families affected in the area was conducted.
- All information, calculations, lab results, protocols from all findings were sent to EPA and CDC for review, recalculation and recommendations of further steps.



Thank you for consulting us and providing CDC the opportunity to review your investigation of childhood brain cancers in The Acreage community. My staff and I reviewed the following documents provided by the Florida Department of Health (FLDOH):

- FLDOH Acreage cancer review, Palm Beach County, August 2009
- Florida Department of Environmental Protection (FLDEP), Acreage investigation – water sample results, February 2<sup>nd</sup> 2010
- FLDEP, Summary of soil and drinking water sampling results for residence located in The Acreage, February, March and April 2010
- FLDEP Guide to understanding soil sampling results, July 19, 2010
- FLDEP Radon testing results
- FLDOH Acreage community case control data analysis, September 2010
- United States Environmental Protection Agency letter to Ms. Mary Jean Yon, director



Well sampling sites

The documents listed above provide results from environmental testing (drinking water and soil) for radon, heavy metals, pesticides and other potential environmental contaminants. In addition, they include results from an epidemiologic investigation to assess potential risk factors for brain tumors among children in The Acreage.

After thorough review of the documents listed above, we found that the investigation completed by the FLDOH was comprehensive and scientifically appropriate. Based on the data provided, we concur with the conclusion of the FLDOH that the investigation (including the case control study and environmental testing) did not reveal any potential risk factors for which exposure among cases was statistically significantly higher than exposure among the controls. We do not have any recommendations for additional epidemiologic studies or environmental testing at this time.

We hope that the extensive environmental testing and the case-control study have provided the residents of the Acreage with valuable scientific information to help allay their concerns about environmental contaminants in their community.

Sincerely,

Michael A. McGeehin, PhD, MSPH  
Director, Division of Environmental Hazards and Health Effects  
National Center for Environmental Health, MS-F-52  
Centers for Disease Control and Prevention  
Atlanta, GA 30333

### Alina Alonso, M.D., Director —PBCHD

The Florida Department of Health in conjunction with its partners at the Florida Department of Environmental Protection and the Centers for Disease Control and Prevention have conducted a study concerning elevated pediatric brain tumors in an area of Palm Beach County.

The study revealed no widespread contamination in the area and the Department of Environmental Protection has said, "Overall, sampling analyses showed the water

quality in the Acreage generally good and residential property in the Acreage is safe for families to enjoy outside activities in their yards."

A third study component, by the Department of Health, involved a case-control analysis. The conclusion stated, "The analysis from study participants did not reveal any potential risk factors for which exposure among cases was statistically

significantly higher than exposure among controls."

Finally, the Federal Housing Administration (FHA) lifted its cautionary warning and additional documentation requirements addressing this issue on September 15, 2010. Thus, lenders and appraisers reviewing mortgages on properties in the 33411, 33412, and 33470 zip codes will no longer need to require any additional documentation beyond what would normally be expected.





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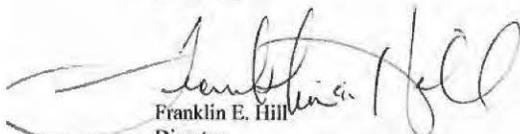
At your request, the Superfund Division of the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the methodology and conclusions presented in FDEP’s investigation report on The Acreage. Specifically we reviewed the following documentation:

The Acreage Drinking Water and Soil Sampling (February, March and April 2010), Loxahatchee, Palm Beach County, Florida – Sampling Information for Soil (SIS) Report, #2010-04 which can be found on the FDEP Southeast District Office “Acreage” web page at <http://www.dep.state.fl.us/southeast/acreage/default.htm> near the bottom of the page, under the general heading: Reports and SIS and Water for The Acreage Community, Palm Beach County (February, March and April 2010).

The FDEP’s investigation was comprehensive in its analytical testing and included sufficient number of ground water samples to screen this large area for drinking water contamination and sufficient number of soil samples to support the Florida Department of Health (FDOH) evaluation of health concerns. We agree with FDEP’s conclusion that the data show no indication of widespread ground water or soil contamination; nor any evidence suggesting the existence of any significant localized source(s) of contamination. The radiological data provided in this report show no results that would warrant further investigation, or would cause any elevated risk to the public. All results from the gamma spectroscopy analysis are comparable to natural background levels that are typical for these radionuclides in Florida soils and ground water.

Thank you for the opportunity to review the details of your investigation and conclusions associated with The Acreage and we hope that our review and comments are helpful to FDEP,

Sincerely,



Franklin E. Hill  
 Director  
 Superfund Division



## DEP-Soil and Water Summary

This report outlines the process and findings for the February, March and April 2010 community water and soil sampling events. It also explains how these results compare to Florida’s Ground Water Quality Standards and Soil Cleanup Target Levels. Although contaminants were detected above these levels in some samples, the investigation found no evidence of substantial spills, dumping or area-wide

contamination. The elevated contaminant levels in water collected post-treatment were attributed to naturally occurring metals or chemical byproducts from the water disinfection process. Since the benefits of a water treatment system that adds a disinfectant typically outweigh the relatively small risk from the formation of these chemicals, DEP suggested that residents consult with their system’s manufacturer or a servicing company.

“Based on the results of the soil analyses, DEP believes that in general, residential property in The Acreage is safe for families to enjoy outside activities in their yards.”

**Mary Jean Yon, Director  
 Department of Environmental Protection’s Division of Waste Management.**



**PALM BEACH COUNTY  
HEALTH DEPARTMENT**

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**“The good news is that following countless hours of review, data entry and concurrence from the Centers for Disease Control and Prevention we reviewed multiple categorical variables and found that none of those factors have been identified as a risk for causing pediatric brain tumors among study participants. It has also been determined by the findings that having a longer residency in the Acreage study area posed no higher risk for brain tumors among children.”**

September 14, 2010  
Case Control Study



Many experts within organizations like the Centers for Disease Control and Prevention, National Institutes of Health, the National Cancer Research Institute and numerous other organizations and academic institutions worldwide are tirelessly working to find what may be the causes of cancer in children.

The Florida Department of Health will continue to work with the people of Florida and these organizations to someday find the answer that will prevent a child from getting cancer.

Websites For Complete Report Information  
[www.pbchd.com/acreage](http://www.pbchd.com/acreage)  
[www.dep.state.fl.us/southeast/acreage/](http://www.dep.state.fl.us/southeast/acreage/)  
[www.pbcgov.com/acreage](http://www.pbcgov.com/acreage)  
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[www.cancer.gov/cancertopics/understandingcancer/environment](http://www.cancer.gov/cancertopics/understandingcancer/environment)  
[www.cdc.gov](http://www.cdc.gov)  
[www.epa.gov](http://www.epa.gov)

**I thank you for visiting the Acreage Neighborhood Information Center.**  
**The Center closed November 5, 2010. The Palm Beach County Health Department remains ready to serve.**  
**Phone: 561-798-7082, 561-671-4014**