

# Suwannee County Community News

## Florida Department of Health and Florida Department of Environmental Protection Search for Causes of Health Problems

The Florida Department of Health (DOH), the Florida Department of Environmental Protection (DEP), and the Suwannee County Health Department (CHD) are working together in north Suwannee County. We are searching for environmental causes of reported health problems.

DEP is in charge of sampling soil and groundwater to identify any possible contamination. DEP also is in charge of cleanup, and investigating any illegal activities.

The DOH role is to look at sampling results to see if the amounts of chemicals found at the site could cause illness. DOH is responsible then to inform the public and other agencies of their findings and recommend what is needed to protect public health. The role of the Suwannee CHD is to request resources from DOH and DEP to aid in identifying potential hazardous waste, in response to community reports of health problems.

**Florida DEP Activities Through February** In response to resident concerns, DEP began an investigation in north Suwannee County in October 2002. Their goal was to identify any environmental sources of contamination. In November 2002, DEP looked at a 12-acre parcel of land along 113th Road. Next they tested nearby drinking water wells. They also began mapping ground and surface water flow.

In November, DEP did an electromagnetic (EM) survey at the site. The survey scans ground to depths of 100 feet. The survey team found four areas where they wanted to do more testing. DEP made soil borings at these four areas, and also another six areas identified by the community. In December 2002, DEP tested soil and water from these areas. They also took samples from nearby drinking water wells previously tested by DOH and Suwannee CHD.

In early January 2003, preliminary well test results from two wells showed elevated levels of pentachlorophenol and other semi-volatile chemicals. As a precaution, DEP and the Suwannee CHD immediately notified the two property owners and installed filters on the wells. DEP re-analyzed the well water samples taken as backups. They also took more samples from the same wells. The additional samples showed that the chemicals were not in the water. However, more sampling is planned for February.

### DEP Activities Through February

#### October

- Met with community at Senator Mitchell's public meeting

#### November

- Re-examination of old dump site on 113th Road
- Soil sampling
- Testing drinking water wells
- Soil borings
- Electromagnetic survey exploring to depths of 100 feet

#### December

- More soil testing on and off the site, retesting wells
- *DOH analysis reveals that nothing found so far would be expected to cause illness*

Samples will again be analyzed for these chemicals at several laboratories to be sure of findings.

So far, DEP has not found any widespread source of contamination. They continue to search. DEP plans to sample area supply wells, and do more surface soil and groundwater sampling.

Keeping the community informed, DEP, DOH, and Suwannee CHD again met with individual well owners. After individual well testing results were shared with well owners, DOH, DEP, and Suwannee CHD developed this newsletter to inform other area residents. All three agencies will continue working on this project.

**Florida DOH/Suwannee CHD Activities Through February** In October 2002, Florida DOH responded to an earlier request from the Suwannee CHD and also from the community to assist with health questions. Florida DOH and the Suwannee CHD are responsible for assessing public health issues. In response to community reports of health problems, Suwannee CHD and Florida DOH sampled 11 private drinking water wells in November.

Florida DOH analyzed the drinking water samples they took from wells surrounding the dump site at their laboratory in Jacksonville. DOH tested the water for nitrate and nitrite, *E. coli* bacteria, sulfate, pesticides, chloride, volatiles, and metals. "Metals" are a class of chemicals. They include lead, aluminum, mercury, arsenic, and others. Volatiles are chemicals also known as solvents.

Florida DOH uses both the state drinking water standards and national guidelines. The federal Agency for Toxic Substances and Disease Registry (ATSDR) sets national guidelines. To further protect Floridians, DOH specifically considers risk to children. Children are usually more sensitive to chemicals than adults. Guidelines for children are usually set lower than for adults.

**Results From November Well Tests** DOH and Suwannee CHD found little contamination in the 11 private drinking water wells they sampled. **The levels of all the substances found in this testing are not likely to cause illness.**

**None** of the 11 wells had nitrate-nitrite, *E. coli*, solvents, or pesticides above state drinking water standards or ATSDR guidelines. Five of the 11 wells had low levels of some contaminants:

- 3 wells had **iron** above the state secondary standard (not a health standard).
- 1 well had **aluminum** above the state secondary standard (not a health standard).
- 1 well had **sulfate** above the state secondary standard (not a health standard).
- 1 well had elevated **lead** above the state primary standard (a health standard). When this well was resampled, the level of lead was found to be lower, and within guidelines.

*It is common for the levels of chemicals in groundwater to vary between samples.*

- 1 well had elevated **arsenic**. **However, it was not above the current state primary standard.** It was slightly above the proposed, lower state drinking water standard. The proposed standard has not yet been adopted. When this well was resampled, the level of arsenic was low enough to fall within the lower proposed guidelines.

Health standards contain a large, built-in safety factor. Agencies usually set guidelines at levels hundreds or even thousands of times lower than chemical levels where any health effects have been noted. The level where a standard is set is not the level where people would be expected to have harmful effects. In almost all cases, it would take a great deal more of the chemical than is given in the guideline for that chemical to have a health effect.

## Florida DOH Activities Through February

### October

- Met with community at Senator Mitchell's public meeting.

### November

- Did two rounds of well testing, and began analysis of blood and urine testing results.

### December

- Met in homes with tested individuals, giving letters to them and their physicians discussing blood and urine test results, also discussing well testing results.
- **DOH reports that nothing found in any test results so far would be expected to cause illness.**

## Substances Found

(1) **Iron:** Iron is essentially nontoxic. The state secondary drinking water standard for iron is based on appearance and taste, not health. Health scientists call that kind of standard “secondary standards.” Concentrations of iron above 0.30 parts per million (ppm) can stain clothes and plumbing fixtures. Concentrations of iron above 1.00 ppm give water a bad taste. Only one sampled well had an iron level above 1.00 ppm. *This level of iron is not likely to cause illness.*

(2) **Aluminum:** Aluminum also is essentially nontoxic. The state standard is 0.20 ppm. This secondary state standard is based on taste, not health. The highest level of aluminum this sampling found was 0.68 ppm. *This level of aluminum is not likely to cause illness.*

(3) **Sulfate:** The state standard for sulfate is 250 ppm. At levels greater than 1,000 ppm, sulfate can cause diarrhea. The highest level of sulfate this sampling found was 360 ppm. *This level of sulfate is not likely to cause illness.*

(4) **Lead:** The state standard for lead in drinking water is 0.015 ppm. The highest level of lead this sampling found was 0.016 ppm. *This level is only slightly above the standard and is unlikely to cause illness.* When retested, the level of lead was found to be well below the state standard.

(5) **Arsenic:** The current state standard for arsenic in drinking water is 0.050 ppm. A change of the arsenic standard to 0.010 has been proposed, but agencies do not expect this change to be enacted for a year or two. The highest level this sampling found in wells tested was 0.017 ppm. *That amount is within the current state standard, and only slightly above the proposed new standard.* It is unlikely to cause illness. Retesting found the level of arsenic in this well was then below the proposed standard of 0.010.

**Blood and Urine Tests** Between September and December 2002, eight adults and 28 children in this community went to their private physicians for blood and/or urine testing. Different doctors ordered different tests for their patients. Some had urine tested. Some had blood tested. Others had both blood and urine tested.

**So far, DOH finds no connection between levels of metals found in people’s drinking water wells and the levels in their blood or urine.**

All people were tested only for metals. Metals that residents were tested for include arsenic, aluminum, barium, cadmium, chromium, cobalt, mercury, lead, and thallium. Some, however, were tested for just one metal. Others were tested for several.

In October, residents and their doctors asked the Suwannee CHD and the Florida DOH to look at the test results. In November, Suwannee CHD and Florida DOH gathered and reviewed them. In December, DOH and Suwannee CHD carried a letter explaining the test results to each individual tested. DOH and Suwannee CHD sent copies of the letters to people’s physicians.

The levels of aluminum, barium, cadmium, cobalt, mercury, lead, and thallium in blood and/or urine of the residents were not a health concern. Arsenic was found in some of the urine or blood samples at low levels. **None represented a health threat.**

It is not possible to know the likelihood of illness based on a single blood or urine test for metals. Diet, medication, cigarette smoke, and other environmental exposures can affect metal levels in the body.

**More About Aluminum and Arsenic** Some residents have been concerned about aluminum and arsenic.

**Aluminum** is an essentially nontoxic metal. It is naturally occurring. It is found in baking powder, soy-based infant formula, tea, processed foods, some vegetables, and

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other common foods. Deodorants, buffered aspirin, antacids, anti-diarrheal and anti-ulcer medicines also contain aluminum. Some vaccinations can expose children to aluminum, as can IV feeding of premature infants, and other medical treatments for severe illnesses.

Most aluminum is not absorbed. The body does not absorb it well. Most aluminum passes through it. The amount of aluminum different people absorb can vary greatly. This means that the amount passing through into blood and urine also can vary from person to person. Because of this, it is not possible to know how much aluminum an individual has been exposed to just by measuring the amount in their blood or urine.

**Arsenic** also occurs naturally in soil. In some places in Florida arsenic occurs naturally in elevated amounts. There are two types of arsenic: organic and inorganic. Fish and other foods contain organic arsenic. It is mostly nonharmful.

Arsenic also is rapidly passed through the body. Urine testing can only detect arsenic if the exposure was in the last two days. Blood testing only detects arsenic if the exposure was in the last three to four hours.

Doctors usually treat patients with more than 200 micrograms per liter (ug/L) of arsenic in their urine. This amount would be determined by a 24-hour-average urine sample. As to arsenic in blood, doctors usually treat patients with more than 70 micrograms per liter.

The amount of arsenic in blood or urine can vary, depending on many factors. Some of these are which test was used, and which laboratory was used. Different techniques can produce different findings. Another factor is the amount of fluid you drink before a urine test. Fluids can affect how diluted the urine is. This, in turn, may affect the levels of arsenic found in the urine.

**What Do the Agencies Plan Now?** All agencies are continuing their investigations. DEP will collect more soil and groundwater samples. DOH and Suwannee CHD will assess the public health risk. All agencies, DEP, DOH, and Suwannee CHD, will keep area residents informed.

**What Florida DOH and Suwannee CHD Do and Do Not Do** DOH looks at the sample findings of other agencies, then recommends to the public and other agencies what is needed to protect public health.

DOH and Suwannee CHD can test water from private drinking water wells. Suwannee CHD provides some medical services to qualified residents. There are no special medical services, however, for nonqualified people who may have been exposed to hazardous waste. Most people must go to their own physicians for medical care.

**If You Have Questions** For further information about the DEP investigation, call Chet McGhee at (904) 807-3384.

If you have questions about health, call Shaun Crawford, Susan Bland, or Beth Copeland at DOH toll-free during business hours: (877) 798-2772. After business hours, you can leave a message on Shaun Crawford's voice mail at (850) 245-4444, Extension 2316.

If you want to know more about toxic chemicals, see the ATSDR website at [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov), especially the ToxFaqs. More chemical information is available at <http://toxtown.nlm.nih.gov>. For more information about DOH activities at hazardous waste sites in Florida, go to [www9.myflorida.com/environment/hsee/Superfund](http://www9.myflorida.com/environment/hsee/Superfund). For more information about DEP activities statewide, go to [www.dep.state.fl.us](http://www.dep.state.fl.us).

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