

The Folchetti OVERVIEW

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Personal Observations from Hurricane Katrina

I was on vacation a few weeks ago visiting my brother in our hometown of Pascagoula, MS. After an excellent trip to Bristol, TN, the site of the best NASCAR racing in the U.S., we received quite a surprise. I remember him saying as we passed a TV at a service station, "Damn, there's a big hurricane out in the Gulf." That basically started a chain of events neither of us had ever witnessed.

We returned to his newly purchased house in Northeast Mississippi, which is approximately 300 miles from our hometown on the Gulf Coast. As Katrina moved in, our thoughts moved to the horror stories our parents told us as kids about hurricane Camille. As it turns out, they did not exaggerate their recollections of that storm at all.

Since our entire family lives on or around the Mississippi Gulf Coast, worried would not even begin to describe our feelings. We stayed up all night watching coverage from various news outlets, and as the destruction began to emerge, we knew we had to do something.

My parent's home is about 15 to 20 miles north of the "beach" along the Mis-

issippi/Alabama state line. Ever since I was a young child all of our family who live along the coastline have ridden out the storms at their house. Since our parents were in Alaska we knew they were OK, but there were 10 relatives staying at their house. As Katrina moved north, we lost power for two days and received 80-90 mph winds 300 miles from the Coast! That really hit us hard. If we got that much force where we were at, our parents' home had to be gone. We decided we needed to do something, but weren't sure what. As communications were nonexistent, all the cell towers were down, plus half the state did not have power for over a week (probably closer to two weeks), and we had no clue what the situation was. We got a call from our Dad that night in which he said basically, "Get down there as soon as you can with as much gas, water and food you can carry." So we did.

This is the point where things started to go haywire. I immediately went on a shopping spree. The most important thing I found was that two days after the storm there were no gas cans available at any store and gas lines were bordering on riots throughout North Mississippi. Keep in mind that this was 300 miles from landfall. For the most part, the gas rush was not a function of people going down to assist their loved ones, but rather a general state of panic that was caused by unfounded rumors of \$5.00 per gallon gasoline prices to be posted the following day. Gas was completely sold out in North Mississippi by the end of the day. By the grace of God we managed to scrape up 30 gallons worth of containers from friends and found one gas station with gas to pump. Even then the gas was being rationed at the rate of \$10.00 to \$20.00 per person (3-6 gallons). Needless to say, my sales training never came more into use than at that moment. One hundred and thirty dollars of gas later, and we were on the road.



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Mississippi is basically split in half by Interstate 20. Just about everything south from there had no power. Power lines were snapped and lying on the ground as a result of plantation pine trees having blown over them. The gas issue raised itself here again: all of the gas stations in this area had gas, but no power to operate the pumps. This issue would haunt those in Katrina's path for weeks to come.

We finally got to our destination. After the last hurricane hit the Gulf Coast, my Dad bought a really nice generator, an 11 kilowatt 20 horsepower model--enough to keep the water pump, deep freezer, refrigerator and a few lights running. Great foresight on his part. The problem was, my Dad has been working outside the U.S. for quite a while and has not been around to exercise the generator. When we got there, my uncle told us the generator would stay running for only a few minutes and then quit. Our first order of business: get the thing running. It took my brother and me about two hours to finally diagnose the problem(s). First, the wrong model fuel filter was installed (and installed backwards at that), and second, there was an electrical short in the system. Problems solved.

We had brought a lot of gas with us, but not enough to last for more than a few days. My Mom's SUV was sitting dead in the carport, so we decided to siphon off the 25 or so gallons in it as a safety factor. As we then learned, on new vehicles there is a valve in the tank that will not

continued on page 3

IN THIS ISSUE:

page 1: What Jeff Jones learned from Hurricane Katrina

page 2: Old PCBs pose new issues for schools

page 3: A bigger, better bottle bill

page 4: Q&A: Preparing for disaster

page 4: Monthly Funding Calendar

In coming issues . . .

Proposed Well Location and Protection requirements

Proposed changes to NYS wetlands

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PCBs in Caulk: Potential Hazard in Schools and Other Buildings

Last July, in what state health officials called the first cleanup of its kind in New York, French Hill Elementary School in Westchester County announced it would conduct a \$100,000 removal of soil contaminated by PCBs (polychlorinated biphenyls) from caulking in the school's windows. In September, the State Education Department mailed a request to architecture/engineering firms for help in determining the potential for other contaminated sites at public schools throughout the state.

Until it was banned in 1997, PCB had been used in building caulk, as a plasticizer to improve flow and resilience characteristics, since approximately 1950. The State Department of Education is seeking information on any projects that may have involved the removal of caulking materials from schools constructed when PCBs were a possible ingredient. Because caulk can also contain other hazardous material such as asbestos or lead, in some cases it may have been properly removed during abatement activities, advises the Department. In other cases, however, when a school did not know the caulk contained PCBs, proper methods may not have been followed during window and door replacements or any other activity where caulking was removed or replaced.

In the case of French Hill Elementary School, where the windows had been removed and replaced in 2003, tests revealed PCBs in caulking at 350 times the federal limit of 50 parts per million. In addition, soil around the school showed evidence of PCB contamination above the state's current one part per million action level. The testing of the caulk was initially performed by a concerned parent, Dr. Daniel Lefkowitz, who had read a 2004 Harvard University School of Public Health study which found that PCBs from caulk had contaminated schools and buildings in the Boston area.

In the Harvard study, PCBs in caulk exceeded the federal limit, and indoor air and dust taken from the buildings also revealed PCB contamination. The study recommended random testing around the U.S. in schools, hospitals and other masonry buildings con-

structed or renovated when PCBs were used in caulk, typically in brick buildings constructed in the 1960s and 1970s. PCB-containing caulk has also been reported in buildings at the University of Rhode Island and in Seattle, Washington.

Dr. Robert Herrick, who led the Harvard Study, has compared the issue to that of lead paint, which was used for many years, contaminating homes and buildings and causing health problems in children. According to Dr. Herrick and other scientists, PCBs are potent developmental toxins.

David O. Carpenter, M.D., director of the Institute for Health and the Environment at the University of Albany and Professor of Environmental Health and Toxicology at the School of Public Health, has stated that PCBs not only cause cancer, reduce immune system function and alter hormonal systems, but have a very damaging effect on the brains of children, reducing I.Q.'s by five to seven points and causing shortened attention spans and an increase in disruptive behavior. He has also cautioned that most evidence indicates that these effects after exposure to PCBs early in life are irreversible.

The Harvard study was prompted by studies in Finland that correlated PCB content in caulking with PCB content in the air and in the blood of construction workers handling these materials during the renovation work. Finland has removed these caulking materials from all buildings in the country, and Sweden is following suit.

In Sweden, studies of teachers in schools containing PCB caulking have concluded that there was heavy indoor air contamination with low chlorinated PCBs, causing a significant increase of PCB blood levels. In a study of German children attending a PCB-containing school compared to students attending a non-contaminated school, airborne PCB levels were much higher than in the non-PCB school, and PCBs could be detected in the blood of all the students at the PCB-containing school, compared to only 27 percent of the students at the comparison school. Similar results were reported in a study of people living in PCB-contain-

ing apartment buildings in Sweden.

Unfortunately, warns Dr. Herrick, the removal of PCB-containing caulk can result in general environmental contamination. The older caulks are a polysulfide-based polymer, while the newer caulks that replace them are often silicone-based materials. Because the two materials are not chemically compatible, the new caulking will not stick to a surface that still contains the old caulking and therefore, the old caulking must be ground off. The grinding process generates extremely high levels of airborne PCB which is a hazard to workers and releases PCB-containing dust into the environment. Studies in Finland found above-standard PCB levels in soil out to 10 meters from buildings where caulking had been removed. The studies also found that inappropriate disposal practices increase the environmental load of PCBs, as when contaminated caulk is disposed of in landfills or incinerators rather than in the high-temperature incinerators designed to destroy PCBs.

With the evidence mounting regarding the prevalence of PCB-containing caulk at schools and its potential adverse effect on children, it is important that all schools pay attention to this issue. Efforts should be made to identify the presence of PCB-containing caulk and to remove it in as safe a manner as possible.

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Until it was banned in 1997, PCB had been used in building caulk

Observations *continued from page 1*

let you siphon off the gas. Siphoning turned out to be another one of those things you may think you can count on, but will let you down severely in the end.

In the last analysis, despite having lived through many hurricanes, knowing what to expect and thinking we were prepared, we were all off by a long shot. Some key learning experiences from me:

1. If you have a generator, exercise it regularly (about once a month). Fire it up and let it run for about an hour just to get the bugs out before you really need it.
2. If you store excess gasoline, use a stabilizer or use and replace the supply periodically. Gas will go "bad", and Murphy's Law says it will be no good when you need it most.

3. If you have some nifty idea in your head of what you can do to alleviate some situation, test it. Just like our siphon idea, it may sound great, but if it doesn't work it's no good to you.
4. Be prepared to go without communications for an extended period. As I write, this is October, and Katrina made landfall on August 29. I still can't get through to my family on the cell network. Landlines in some areas were finally operational about two to three weeks ago.
5. Overall, preparation is the key. If you wait until a few days before the disaster hits to find gas cans, gas, food and water you will probably be out of luck. Formulate a good, workable plan (use KISS: Keep It Simple Stupid) and trouble shoot every component.

If disaster strikes, you will be in a high stress environment for a long period of time. Don't add to the stress by not having a workable disaster preparedness plan.

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EXPANDED BOTTLE BILL WOULD HELP MUNICIPALITIES

After being passed by a 98 to 40 vote in the New York State Assembly on July 20, the "Bigger Better Bottle Bill" will get another push from bottle bill activists in the 2006 legislative session.

The most recent amendments to the bill include provisions which would expand the bill to include non-carbonated beverages such as bottle water, tea, juice and sports drinks. The expanded bill would also allow unclaimed deposits to be considered unclaimed public funds that could be put into the State Environmental Protection Fund (now funded by revenues from the real estate transfer tax and specialty license plates at an average \$125 million per year).

If the expanded bill passes, beverage distributors and bottlers would be required to turn over unclaimed deposits, and some of the funds collected could be used to reimburse businesses for a portion of the costs of handling the containers. Supermarkets that complain about the costs of renting reverse vending machines, for example, could apply for reimbursement of some of their expenses. Both supermarkets and redemption centers would receive an increase from 2 cents up to 3.5 cents per container handled, increasing the compensation for retailers and providing added incentive for more redemption centers. Monies collected would also be used to fund a wide range of environmental concerns, from improving water quality to preserving abandoned but historically significant cemeteries.

According to the New York Water Environment Association (NYWEA), currently about 30 percent of the deposit containers sold in New York are not returned, and uncollected deposits kept by beverage distributors and bottlers amount to between \$85 to \$137 million each year. Adding the new non-carbonated beverages would boost the amount to about \$177 million per year. The Container Recycling Institute estimates about \$140 million in unclaimed deposits annually and an increase to about \$180 million with the addition of non-carbonated drinks. DEC's estimates are lower, with an estimated \$87 million in unclaimed deposits during their most recent reporting period, 2002-2003, which would increase by 20% by adding the new types of beverages.

NYWEA estimates that non-carbonated beverage containers currently make up 62% of the bottles and cans in New York's waste stream. When the New York bottle bill was enacted in 1983 these beverages were almost non-existent but today account for 21 percent of the 12 billion unit non-alcoholic, non-dairy beverage market. By expanding the types of containers requiring deposits, NYWEA believes the new bottle bill may divert up to 2.5 billion additional glass and plastic containers from the stream



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and save taxpayers and municipalities the cost of collecting and disposing of them, whether through curbside recycling or trash hauling. It would also reduce broken glass and other litter by more than 10 percent.

According to the New York Public Interest Research Group (NYPIRG), municipalities believe the bill will save them money in the areas of garbage collection, litter cleanup, recycling collection and processing. The expanded bottle bill has won support from the New York Association of Towns, the Association of Counties, and the New York Conference of Mayors, as well as from the New York Association of Recyclers, which is made up largely of municipal recycling coordinators.

NYWEA, which terms the Bottle Bill the state's most successful recycling and litter control program, is a strong supporter of the expanded bill, which it points out could help fund municipal recycling and waste prevention programs, and municipal water and wastewater infrastructure projects as well as other critical environmental needs. Some of the funding could potentially be used by MS4s (Municipal Separate Storm Sewer Systems) to meet their requirements under the latest stormwater regulations.

John Folchetti, CEO, PE



Q & A with John Folchetti

Q: What do municipalities need to know about preparing for disasters?

A: There are two primary types of planning for disasters—response planning and mitigation planning. It's critical to create both, response and mitigation plans that focus on what the municipality perceives as the most probable disasters, be they flooding, hurricanes, the need for mass evacuation, terrorist action, etc. Both types of planning are the responsibility of the municipality.

Q: What is the role of hazard mitigation planning in disaster preparedness?

A: Recent storm events, both local and national, indicate that more attention needs to be paid to mitigation on a continual basis. This can help pre-

vent some of the potential disasters a community may face during a major flood or storm event, for example. If weaknesses are identified and corrected in advance, certain disasters may never present themselves. But it's not enough to plan once; hazard mitigation plans must be continually reevaluated from the perspective of what can still go wrong. If an undersized storm drain that has been subject to flooding is upgraded for a 100-year event and a 150-year event then occurs, or a Category 4 hurricane is planned for and a Category 5 hurricane occurs, problems may still arise. Making these decisions in the public forum allows for an understanding of the cost/benefit analysis that the municipality must perform and provides an opportunity for the constituency to either pronounce itself satisfied with the mitigation effort or to influence the process to gain added protective measures.

Q: How do municipalities actually put their plans into action?

A: Mitigation plans typically are oriented toward infrastructure. The process of putting a plan into effect usually entails developing the plan,

vetting it in the public forum under SEQRA, adopting it, and finally implementing it by using available grants and bonding. Response plans, which are more intricate, require coordination across multiple government, law enforcement, emergency response, quasi-government and non-government organizations (NGOs). All of these various agencies should be involved in developing the plan. Once developed, the plan should then be rehearsed to work out the inevitable kinks and conflicts that will exist within a first-draft paper document. Continual refinement should be made until the plan's executors function satisfactorily in all roles. Once this occurs, planning should continue for other contingencies while the existing plan continues to be rehearsed on a regular basis to make sure it keeps pace with changes in technology, infrastructure, personnel, equipment, etc.

Please give us your suggestions for future Q & A topics and future articles, by emailing them to john.folchetti@jrfa.com.

THE FUNDING CALENDAR

Grant Name	Funding Agency	Eligible	Deadline	Goals
Urban Tree Plantings; Urban Forest/Street Tree Management Plans; Urban Forest/Street Tree Inventory and Management Plans	New York State Department of Environmental Conservation	Municipalities, Public Benefit Corporations, Public Authorities, School Districts, Not-for-Profits	October 31, 2005	Urban Tree Planting, development of urban forest/street tree management plans and implementation of forestry work prescribed in existing urban forestry management plans, development of urban forest/street tree inventory and management plans.
Sacred Sites Program for Preservation of Historic Religious Buildings	The New York Landmarks Conservancy	Religious institutions of all denominations	November 1 2005 and May 1 2006	Planning and executing repair and restoration work on historic properties and sites owned by religious institutions and listed on the State/National Register of Historic Places or locally land marked.
Tiffany & Co. Environmental Program	The Tiffany and Co. Foundation	Not-for-Profit	November 15, 2005	Responsible Mining Coral Reef Conservation Land Protection
Local Government Records Management Improvement Fund	New York State Education Department	Local Governments, Municipalities, Fire Districts, School Districts, Boards of Cooperative Educational Services	December 1, 2005	Records Management: a) Inventory and Planning b) Active Records c) Inactive Records d) Historical Records e) Educational Uses of Local Government Records
New York State Qualities Communities Program	New York State Department of State	Municipalities, Public Benefit Corporations, Indian Tribes/Nations and Not-for-Profit Corporations	December 5, 2005	a) Intermunicipal Growth Program, Community Growth program and Community Open Space Program b) Community Center Program c) Mountain Communities Program
Barns Restoration and Preservation Grant Program	New York State Parks, Recreation and Historic Preservation	Any Person Interested in the Restoration of a Barn, Shed, Silo, Agricultural Structure in Need of Repair and at Least 50 Years Old	December 16, 2005	Restoration and Preservation of Barns and Related Agricultural Buildings in New York. a) Contribute to a Scenic Landscape of Agricultural Setting b) Contribute to the Character of its Surroundings c) Visible to the Public

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