

Looking for Clarity

A report on the bottled water industry in Florida.

By Cynthia Barnett

In the early 1990s, only one small company pumped and bottled water inside the boundaries of the Suwannee River Water Management District that oversees the famed river and hundreds of Florida's deep-blue springs.

But over the next decade, as bottled-water sales began to float upward to steady 10% annual increases, bottled water companies of all sizes began to spring up all over Florida. In the Suwannee district today, three of the world's largest bottlers pump springs along the Suwannee and Santa Fe Rivers: Nestle Waters North America, a unit of Swiss giant Nestle SA, the world's biggest food and beverage company; Atlanta-based CCDA Waters, owned by Coca-Cola and French food and beverage powerhouse Danone; and DS Waters of America, the top company for home and office water delivery in the U.S.

Around 60 bottling-related compa-

nies operate elsewhere in the state. They range from boutique firms that will slap a company logo on bottles of water to "water dealers" that pump water from various parts of Florida and sell it to bigger bottlers. What begins as a free resource passes from dealer to bottler for some 5 cents a gallon. Consumers eventually pay up to 100 times more.

Florida offers a strategic location for the industry. Bottlers get both a ready, untaxed supply of water ("Swapping Water for Jobs," page 56) and proximity to a large, thirsty population that keeps shipping costs low. "Florida has become one of the top-consuming states for bottled water in the United States," says Gary Hemphill, managing director of Beverage Marketing Corp. in New York, who estimates U.S. bottled water sales at close to \$10 billion in 2005. "It is associated with good weather, outdoor activities and an active lifestyle."

Bottling companies also get little oversight in Florida, at least when it comes to

the source of their water. The Division of Food Safety, the state agency responsible for monitoring the water companies, tests bottled water to make sure it's safe and inspects bottling facilities for sanitation. State law also requires the division, part of the state Department of Agriculture and Consumer Services, to ensure that bottled water is "from an approved source." But the food-safety regulators say that simply means they have to ensure the bottling company has the proper approval from an agency such as a water-management district to withdraw water. No agency keeps track of precisely what the companies are bottling.

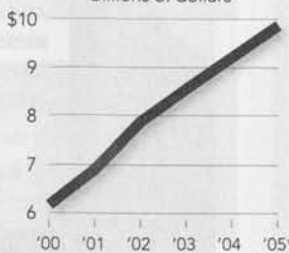
So where does the water in the bottle actually come from? Some non-spring bottled water, such as "drinking water" sold in grocery stores, is essentially tap water poured into a bottle or jug. Nearly half of Florida's 60-plus water companies don't have a permit to withdraw water from one of Florida's five water-management districts. In most cases, that means

WATER TRENDS



U.S. Bottled Water Revenue

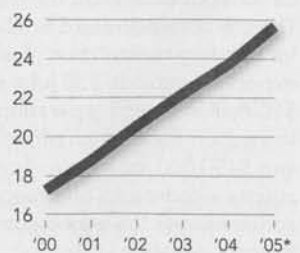
Billions of dollars



* Preliminary Source: Beverage Marketing Corp.

U.S. Consumption

Gallons per capita





they're either bottling municipal water or buying water in bulk from another supplier. A water dealer such as Heartland Water Products in Highlands County, for example, sells in bulk to a bottler such as Arctic Spring in Lakeland.

Packaging water from wells and municipal sources is neither illegal nor unusual. Publix, for example, pumps groundwater from wells under its huge Lakeland Industrial Center in Polk County to produce some of its store-brand drinking water. Some Publix water also comes from municipal sources. Winn-Dixie uses Plant City tap water for its store-brand drinking water. A company known as the Dickson Trust of Silver Springs has plans to use water directly from Silver Springs Regional Water and Sewer Inc. — a public supplier — and sell it in bulk to commercial water-

ON TAP: About one-fourth of all bottled water begins life as tap water. Many of Florida's bottlers also get their water from groundwater wells.

bottling companies.

In fact, an estimated quarter of all bottled water begins life as tap water. The top-selling bottled water in the U.S. — Pepsi's Aquafina — is simply tap water that's been additionally purified via reverse osmosis and carbon filtering. The same goes for the No. 2 product, Coca-Cola's Dasani, which counts Jacksonville tap water among its sources.

Labels and marketing — including Florida-bottled products featuring snow-capped mountain peaks — often suggest



a source more exotic than the water's origins, however.

Few companies still make grandiose claims like those of Golden Springs LLC, which runs a spa at Warm Mineral Springs in North Port and markets "Fountain of Youth Natural Mineral Water" for \$9.95 a liter. The company's promotional director, Robin Sanvicente, says the water "rejuvenates, replenishes, restores, actually heals arthritis, fibromyalgia, you name it."

But consider Silver Springs Bottled Water Co. of Marion County, which calls itself Florida's largest privately held bottled-water company. The firm's name harkens the deep-blue spring waters of north Florida and the longtime tourist attraction that's the largest artesian spring for-

Testing the Waters

The biggest difference between tap and bottled waters? Cost.

DEFINITIONS

- ▶ **Municipal or Tap Water:** The source for about a quarter of the bottled water sold in the U.S. Water bottled from municipal plants must be clearly labeled as such. Tap water that has been further processed and treated can be labeled "distilled" or "purified."
- ▶ **Purified Water:** Water that has been treated via distillation, deionization or reverse osmosis.
- ▶ **Spring Water:** Restricted to water collected from a spring that originates from an underground formation from which water flows naturally to the surface or from a borehole that connects to the formation.
- ▶ **Well Water:** Water from a bored, drilled or otherwise constructed hole in the ground that taps the water of an aquifer.

Editor's Note: FLORIDA TREND hired Ohio-based National Testing Laboratories to analyze several bottled waters produced in Florida as well as samples of tap water from Orlando and West Palm Beach. National Testing Laboratories is one of the largest independent labs in the U.S. specializing in drinking-water analysis for chemical and microbiological contamination. It's the largest provider of analytical services to the U.S. bottled-water industry, testing on behalf of 500 bottling plants around the world.

Head down the bottled-water aisle of your local Publix, and the choices are enough to make your head swim: Should you pick up Publix brand spring water, purified water or drinking water, all 69 cents a gallon? Zephyrhills Natural Spring Water? What about Zephyrhills Drinking Water? Crystal Springs? Aquafina? How about water from a source 7,000 miles away? Fiji?

To find out more about what's inside bottles of water produced in the Sunshine State — and how they compare to tap water — FLORIDA TREND sent half a dozen samples to an independent laboratory for analysis. We then asked a drinking water-quality expert, University of Florida environmental engineering professor David Mazyck, to interpret the results.

Mazyck's take-home message was this: Bottled waters are not all the same. And overall, Florida's tap water is just as good for you as bottled water.

TREND tested Orlando tap water, which comes from groundwater in the Floridan Aquifer, and West Palm Beach tap water, which comes from Lake Okeechobee. Both tap waters showed the presence of trihalomethanes, or THMs, a common byproduct

of drinking water disinfection linked to increased risk of cancer. In both cases, the THM levels were small — .020 milligrams per liter, a fraction of the EPA's maximum level allowable in drinking water, .080 milligrams per liter.

What might surprise consumers who buy bottled "drinking water" is the presence of THMs in some bottled products, too. TREND's test of Publix brand drinking water found precisely the same, safe level of THMs — .020 milligrams per liter — as in the tap waters tested. Publix spokeswoman Maria Brous says the bottle tested by FLORIDA TREND originated as Atlanta tap water. The company monitors for THMs, she says, to make sure they remain within acceptable levels.

The three bottled spring waters tested revealed no trace of THMs but were not free of disinfection by-products. The test result that most disturbed Mazyck: A sample of Crystal Springs Natural Spring Water that was pumped from Levy County's Wekiva Springs and bottled by Atlanta-based DS Waters of America contained the EPA's maximum-allowable level of bromate, another disinfection byproduct that is also linked to increased risk of cancer.

Industry officials say the added value in bottled water comes from the additional purification processes, the lack of chlorine and the fact that their water doesn't travel through old pipes.

mation in the world. But the company uses Ocala well water for many of its products, according to its water-use permit from the St. Johns River Water Management District. It buys spring water from a company called Spring of Life, which is based outside Orlando not far from Florida's Turnpike.

Meanwhile, Zephyrhills' famed spring water doesn't come from Zephyrhills, although some of it is bottled there. For its Zephyrhills and Deer Park brands, Nestle Waters pumps from four springs in various parts of Florida and also buys water from dealers.

Springs eternal

Even the term "spring water" isn't as clear as it might seem. Florida environmental scientists and regulators don't agree where groundwater stops and "spring water" begins. Some argue it's not spring water unless there's an intake pipe poking into the spring itself. Others say it's spring water as long as the well is in the spring's "zone of influence."

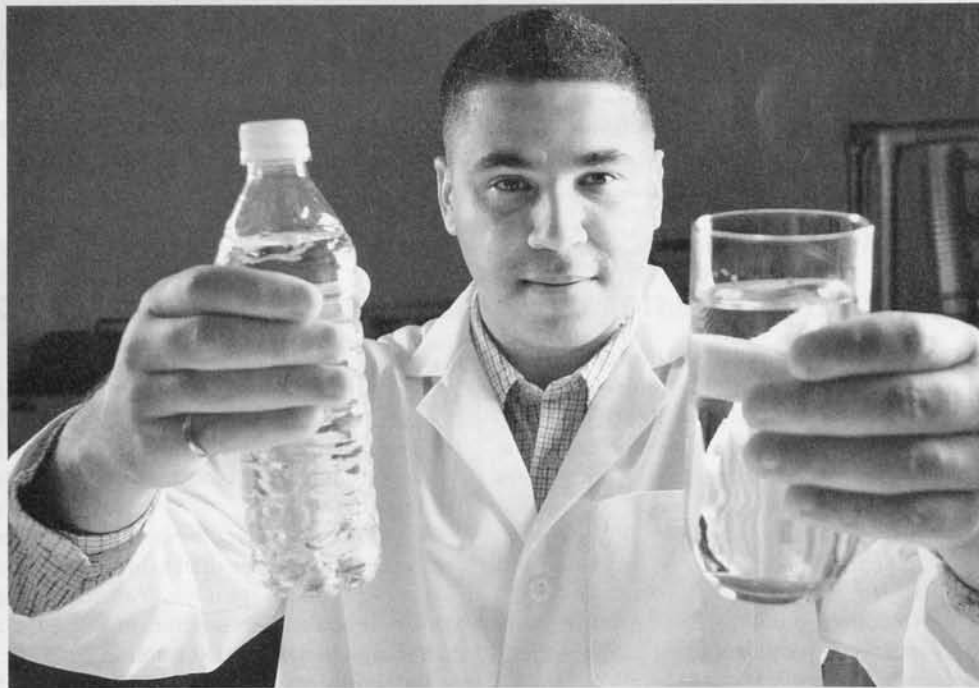
In several cases, the wells of spring-water companies are thousands of feet from the actual spring. For example, Nestle's borehole at its Blue Springs plant that bottles both Deer Park and Zephyrhills

Spring Water is more than 4,000 feet from the spring. Under federal law, "spring water shall be collected only at the spring or through a borehole in the underground formation feeding the spring." The companies must hire a licensed hydrogeologist to certify to the federal government that the groundwater they're pulling up is of the same composition and quality as that flowing from the nearby spring. But officials with the Food and Drug Administration, the federal agency that regulates bottled water, say that since much of Florida's water never crosses the state line, not all companies may adhere to its rules.

The Crystal Springs bromate level was .010 milligrams per liter — the highest level of the contaminant the EPA allows in drinking water. Kent Kise, director of quality and technical services for DS Waters, says the level detected doesn't worry him because the federal standards are rigorous to ensure no risk to consumers. "It meets all regulatory standards," Kise says. "This is why we have standards." Still, he said he plans to investigate TREND's findings.

Most consumers have probably never heard about the issue of bromate in spring water, but Kise says it is "of very high interest to the bottled-water industry as a whole." Bromate doesn't occur naturally in springs. Its harmless cousin, bromide ion, can occur — sometimes as a result of saltwater intrusion. Bottlers use a purification process called ozonation to ensure water is free of bacteria. When bromide is present, the ozonation process can turn the harmless ion into carcinogenic bromate. "Bottled water can have disinfection byproducts," says Mazyck, "and that can be the case even if the bottle says 'spring water.'"

The water with the best test results was Deer Park Spring Water, which was bottled by Nestle Waters North America at its Zephyrhills plant. But overall, says Mazyck, aside from the bromate issue, "if you drank two liters



of water from any of these sources every day for your lifetime, your risk of any adverse health effects is low."

That goes, he says, for both the municipal water and the bottled water. "You can't conclude that one is healthier than the other," Mazyck says, although he asserts that EPA oversight of municipal water plants is more stringent than FDA's regulation of bottled water.

Mazyck's overall conclusions are similar to those of other studies comparing bottled and tap waters. In a

blind study using 10 municipal and bottled-water samples from central Florida, James Taylor, director of the University of Central Florida's Environmental Systems Engineering Institute, found that both types of water met state and federal water-quality regulations. Two of the bottled waters had high bacterial counts. The municipal waters had significantly higher chlorination byproducts. Overall, says Taylor, there was virtually no difference except that bottled water "costs 10,000 times more."

BOTTLE OR TAP?
University of Florida professor David Mazyck says Florida's municipal waters are just as good as bottled waters.



Swapping Water for Jobs

Bottling is easier in Florida than in many other states.

Tucked into a hardwood forest in rural Madison County in north Florida, Madison Blue Spring bubbles up into a limestone basin along the Withlacoochee River. Popular with divers and swimmers who leap off its wooden ledges and shoot down its powerful run, the spring pool is only 40 feet wide and 25 feet deep. But each minute it pumps 45,000 gallons of cold, clear water. Poets call this water liquid light. To the bottled-water industry, it's liquid gold.

Madison is one of 33 "first-magnitude springs" in Florida, a designation for springs that discharge at least 100 cubic feet every second, or about 65 million gallons a day. Florida has more first-magnitude springs than anywhere else in the world. That fact, along with the growing market for bottled water in the Eastern U.S., brought a multinational corporation to the tiny nearby town of Lee.

Lee is one of the last places in Florida where you can drive for miles on graded dirt roads and see few signs of life other than the occasional chicken. But today

in these woods, not far from trailers with no trespassing signs like the one that says "BAD ASS DOGS," sits Nestle Waters North America's newest plant — one of the most advanced bottling facilities in the U.S.

The plant, also a Southeastern distribution center for more than a dozen Nestle water products, from the French Perrier to the Italian S. Pellegrino, produced 26 million cases of bottled water in 2005. As the facility expands to 646,000 square feet this year, Nestle's investment here will top \$110 million.

Nestle has operated in Florida since 1989, when it bought the family-owned Zephyrhills water bottling plant in Pasco County and began bottling spring water from nearby Crystal Springs. In the late 1990s, consumer demand sent the company searching for a new bottling and distribution site somewhere between Allentown, Pa., and Zephyrhills. The flow, water quality and location convenient to Interstates 10 and 75 sold the company on Madison Blue.

Many in the community welcomed the prospect of up to 250 jobs and an increased tax base. But environmentalists worried Nestle's 1.4 million-gallon-a-day maximum withdrawal could deplete water supply in the region. Even some supporters of the plant complained about the \$1.3-million highway improvement grant offered up by the state to a corporation with annual revenue of \$66 billion.

Many also ask why Nestle and other bottlers should get their raw material — water, which by law belongs to the state — for free. One economist compares it to a food company that makes berry jam and gets the berries at no charge. Others believe that government should receive royalties, such as those paid by oil companies, for allowing water bottlers to extract the planet's most important resource.

Nestle and other officials counter that theirs is a value-added product that relies on water to a lesser extent than competitors such as soft-drink companies or beer makers. Company executives say it takes 1.3 gallons of water to produce

Nestle Waters North America pumps water from Cypress Spring in Washington County, left, as well as from Blue Spring in Madison County and Crystal Spring in Hillsborough County for its Deer Park and Zephyrhills spring-water products. Environmental regulators in north Florida say the company has helped protect springs from development and pollution.

A matter of taste?

Spring water companies, for their part, say consumers can taste the difference. At the Spring of Life Spring Water Co. outside Orlando, President Diane Roesch says it took her family nearly a decade of testing and other work at the artesian source they own to satisfy regulators and begin selling water to bottlers throughout Florida in 1990. "I live four miles from here, and my well water doesn't taste nearly as good as this spring water," she says.

Industry officials say the added value in bottled water, regardless of its source, comes from purification processes, the lack of chlorine and the fact that it doesn't travel through old pipes. "Bottled water provides consistent safety, quality and good taste," says Stephen Kay, vice president of communications at the International Bottled Water Association. "Consumers like that consistency."

Ultimately, of course, both spring water and the water that bottlers draw from non-spring sources originate in the same Floridan Aquifer that supplies 92% of the state's drinking water.

At the Northwest Florida Water Manage-

ment District in the Panhandle, home to a half-dozen water bottlers, Angela Chelette, chief of groundwater regulation, says the point is that Florida boasts good-quality water — whether consumers get it from their faucets or pay a dollar a pint to drink it from a bottle. "I would call it groundwater — it's the water that we drink out of our taps and our spigots," she says of the bottling permits in her district. "They may run it through a couple of more processes, but generally, it's all the same. It's good water — we all have good water."

Does the source really matter to consumers? Continued soaring sales of bottled water may mean they care more about the convenience of the product and the fact that it's healthier than soft drinks. Style and status play a role, too. Consider the new Boca Raton eatery Bova, with a two-page, 25-bottle water menu whose offerings begin at \$6.75 a liter.

Hemphill, the beverage analyst, thinks consumers buy bottled water for three primary reasons: Convenience, packaging and price. "Whether it has a sport cap or a twist-off cap is often more important to the consumer than whether it's drinking water or spring water."

one gallon of Nestle spring water, compared with three gallons to make a gallon of soda, 42 gallons to make a gallon of beer and 5.4 gallons to make a board foot of lumber.

"We pay a great deal for this water," says Meg Andronaco, Nestle natural resource manager for the Southeastern U.S. "It costs millions and millions of dollars just to develop the spring and go through the permitting process."

Water bottlers in fact use a minuscule amount of water compared to other Florida industries. The state's farmers, for example, suck up 3.92 billion gallons of water a day. Florida's spring-water bottlers hold permits to use a little more than 10 million gallons a day.

But the issue could grow more sensitive as Florida government and consumers face enormous water-infrastructure bills in the coming decades to create new water supplies — like desal plants — as the most populated areas run out of groundwater. There's little question that everyone in Florida eventually will have to pay more for water — bottlers included. Last year, state Sen. Paula Dockery's work group studying ways to fund new supply considered lifting the sales-tax exemption on bottles of water, which would have raised an estimated \$50 million a year for the state. Major help from the industry in the wake of hurricanes helped the powerful beverage lobby con-



HIGH TECH:

One of the most advanced bottling plants in the U.S. is nestled in rural Madison County, where Nestle cranks out more than 3,000 bottles a minute. For most of the year, the plant operates 24 hours a day, seven days a week.

vince lawmakers not to take up the idea.

A Maine group is pushing a 20-cents-a-gallon tax on bottlers in that state, home to Nestle's Poland Spring Bottling Co. And in Michigan, the industry is so controversial that Democratic Gov. Jennifer Granholm last year put a moratorium on new or expanded bottled-water operations until the Legislature enacts a water withdrawal law.

To be sure, the industry is a classic case of NIMBY, or not-in-my-back-yard, in Florida. The Wakulla County Commission recently nixed a water-bottling plant two miles from Wakulla Springs, even though the Northwest Florida Water Management District had permitted pumping there.

Handing over resources in exchange for economic development has been a part of Florida's heritage since the Legislature traded swampland for railroad lines in the 1800s. Madison County Commissioner Roy Ellis, who represents the town of Lee, argues that's the only way rural counties can have a chance to grow and prosper. "They've been a very good neighbor, and they've kept every promise and they've filled every job they said they'd fill," Ellis says of Nestle. Meanwhile, he says, the company has invested so much in its Madison operation that there's no way it will deplete Madison Blue. "They have an interest in taking good care of it." □