Compiled by Rebecca Wilhelm

Reaching for Reuse

The evolution of a successful water reuse and reclamation program

The city of Altamonte Springs, Fla.,'s citywide public-access water reuse system, known as Project APRICOT—an acronym for "Prototype Realistically Innovative Community of Today"—is a featured facility tour at WEFTEC.09. WWD *Associate Editor Rebecca Wilhelm spoke to Altamonte Springs' Larry Dolamore to learn more about the city's reuse system.*

Rebecca Wilhelm: How did Project APRICOT begin?

Larry Dolamore: The city of Altamonte Springs had experienced tremendous growth during the 1970s and early '80s that led to the need to expand the capacity of the city's regional wastewater treatment facility. The facility discharged to surface water, and the city and local environmental group desired to not only improve the quality of the discharged water, but to reduce the volume.

The city developed a plan to upgrade the wastewater treatment plant and worked closely with regulators to plan for high-level wastewater treatment and a reclaimed water distribution system throughout the city that would ultimately reach almost every residence and business.

Wilhelm: Please describe the system's infrastructure and the treatment processes.

Dolamore: The wastewater treatment facility was upgraded from a 7.5-million-gal-per-day (mgd) capacity to a 12.5-mgd capacity between 1986 and 1987.

The improvements provided increased biological nitrogen reduction, deep-bed filtration and high-level disinfection. Low head pumps transfer the water to two 3-million-gal storage tanks. Variable-speed high-service pumps move the water to the distribution system. A comprehensive SCADA system monitors and controls the equipment, and it monitors water pressure at numerous points in the distribution system.

Wilhelm: How has the demand for reclaimed water increased over the years?

Dolamore: Reclaimed water was first pumped through the distribution system in 1989. At that time, the distribution system was only partially constructed.

The years 1990 to 1993 saw substantial completion of the distribution system and public acceptance of the water.

In April 1994, we first experienced days when all of the reclaimed water produced was pumped to distribution. Since then, a decommissioned water treatment plant was reactivated to pump groundwater to supplement the reclaimed water system. Additionally, four water bodies are permitted for use to add to the available reuse water.

Wilhelm: Are there plans for upgrades or expansion in the future for Project APRICOT?

Dolamore: The city is studying viable options for a more regional use of reclaimed water through storage of reclaimed water in ponds and piping water to other service areas. The most recent major change to the operation of APRICOT was construction of a distribution system interconnect with a smaller, neighboring utility. This has been beneficial to both entities by providing reduction of surface water discharge and groundwater used for supplemental water by "sharing" of water storage capacity.

Wilhelm: What are the greatest benefits the city has realized from Project APRICOT?

Dolamore: A large reduction in groundwater used for nonpotable functions, primarily irrigation, and reduction in effluent discharged to surface water.

Wilhelm: Do you have any tips or best practices that help achieve the greatest percentage of reuse?

Dolamore: During the early years of Project APRICOT, the city employed an information liaison who provided education to the public about reclaimed water through numerous formats, including neighborhood meetings.

This approach proved beneficial in alleviating customer concerns about treated wastewater effluent being sprayed on their lawns. Today, the public has heightened awareness of reclaimed water compared to 20 years ago, but for areas in which this is new, providing reclaimed water facts to them is important to the program's success. WWD

Larry Dolamore is division director of water/wastewater/reuse for the city of Altamonte Springs, Fla. Dolamore can be reached at 407.571.8712 or by e-mail at lldolamore@altamonte.org.

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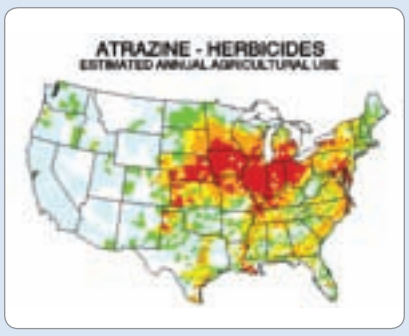
EPA Seeks Input for Commercial & Institutional WaterSense Program

The U.S. EPA WaterSense program is looking for input and feedback on a potential WaterSense commercial and institutional program.

As a first step, the program has released a white paper, "Water Efficiency in the Commercial and Institutional Sector: Considerations for a WaterSense Program," available at www.epa.gov/watersense.

Atrazine Found in U.S. Drinking Water & Watersheds



The pesticide atrazine has contaminated watersheds and drinking water throughout much of the U.S., according to a recent report released by the Natural Resources Defense Council.

Banned by the European Union, atrazine is the most commonly detected pesticide in U.S. waters and is a known endocrine disruptor.

The report suggests that the EPA's reliance on regulating atrazine based on a "running annual average" allows levels of atrazine to peak at extremely high concentrations.

Black & Veatch CEO Advocates International Collaboration

Dan McCarthy, president and CEO of Black & Veatch's global water business, advocated continued international collaboration and cooperation by the water industry despite protectionist approaches adopted by the U.S. and becoming more prevalent in other countries.

His white paper, titled "Water Didn't Start the Fight: Potential Impact of Protectionist Attitudes on Water/Wastewater Industry," is available at: www.bv.com/downloads/resources/reports/20090831_waterdidnt-startthefight.pdf.

Los Angeles Reports Drop in Water & Power Consumption

Officials said Los Angeles cut water use by 17% in July compared to a year earlier, *The Associated Press* (AP) reported.

The city appealed to residents to conserve water as the southern part of the state faces a water shortage brought on by drought and restrictions on supplies.

Single-family homes cut water use by almost 21%, multifamily properties cut use by more than 8%, businesses usage dropped by nearly 22% and government properties reduced usage by more than 34%, according to the Department of Water and Power.

Sizable reductions in electricity use were also reported, according to the AP.

U.S. Municipal Bond Market Improving

The municipal bond market was hit hard last year, but borrowing costs for states, cities and other public entities have dropped below historical norms, the *Financial Times* reported, indicating increasing demand for the market.

Issuers of Build America Bonds have raised $27 billion this year, according to Thomson Reuters. Through the federal stimulus package, municipal bond issuers receive a subsidy for 35% of the interest when they sell fully taxable bonds to fund infrastructure projects, the newspaper reported.

In early September, the Securities and Exchange Commission is expected to review public comments related to municipal bonds and decide whether or not changes should be recommended.

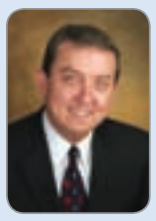
Imagine H2O Launches Inaugural Water Prize

Imagine H2O, a not-for-profit company, is launching the inaugural Imagine H2O Prize for Water Efficiency.

The competition is a business plan competition for new or early-stage water-efficiency businesses. Competing teams submit an entry, including an executive summary of their businesses. A selection committee determines which teams advance and ultimately win prizes.

Application, entrance fee, resumes and executive summary must be received by Nov. 16. Competition guidelines are available at www.imagineh2o.org.

Former CH2M HILL CEO Ralph R. Peterson Passes Away



Ralph R. Peterson passed away Sept. 1 at his home in Denver after a long battle with cancer. Peterson joined CH2M HILL in 1965 as its 148th employee. From 1991 through 2008 he served as the firm's chief executive officer.

Widely viewed as a sustainable development thought leader in the engineering and construction industry, Peterson led the employee-owned CH2M HILL for 18 years, growing it to a $6-billion global engineering, construction and program management enterprise. WWD

News compiled by Rebecca Wilhelm, WWD *associate editor*

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