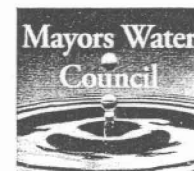




Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

Fall 2006



The Success of Port St. Lucie's Water & Sewer Expansion Program

By Port St. Lucie Mayor Robert E. Minsky, Donna Rhoden and Ed Cunningham

Port St. Lucie's municipally owned water and wastewater utility has had a unique history in relatively short life. It has been owned and operated by three distinct entities. General Development Utilities (GDU), a subsidiary of General Development Corporation (GDC), the original developer of Port St. Lucie, formed the Utility in the late 1950s. GDU planned its small water and wastewater treatment facilities solely to provide services to homes and commercial buildings it was selling at the time. The Northport Water Treatment Plant, was constructed by GDU in 1959 as a 150,000-gallon steel ground storage tank serving the River Park subdivision and a small commercial plaza. The Southport Water Treatment Plant and Southport Wastewater Treatment Plant were constructed in 1960 and 1961 to serve GDC's Sandpiper Bay golf resort/hotel, and the homes GDC intended to build surrounding the resort's three golf courses. The 375,000 gallon per day Westport Wastewater Treatment Plant

was constructed in 1980 to serve the Windmill Point community, a cluster of apartments, town homes, and lower priced single-family residential units.

By the early 1980's, GDC had platted more than 80,000 1/4-acre lots within Port St. Lucie's city limits. Residential contractors other than GDC had also begun building custom homes in the City, the majority of which did not have benefit of GDU's limited water and wastewater service availability. As a result, thousands of homes were built with private, shallow aquifer wells and septic systems.

Subsequent to GDC's and GDU's bankruptcy filings in 1990, St. Lucie County acquired the utility through a "quick take" action. In 1993, the City of Port St. Lucie and St. Lucie County began discussions regarding a potential transfer of the utility to the city. The City Council wanted to own and operate the utility and make public water and wastewater services available to its ever-growing number of residents. The City reached a transfer agreement on

see PORT ST. LUCIE on page 3

FROM THE CHAIR from page 1

the University of Colorado, an expert in the area of climate change impacts on the environment, shared information with the Mayors concerning how new patterns of drought, storms and flooding are being driven by the current warming trend we are experiencing in North America. This type of information helps us anticipate what should be done to adapt our cities to successfully cope with the changing weather patterns. Ken Albright, Director of Groundwater Resources for the Southern Nevada Water Authority, explained the Best Practices employed to secure an adequate and affordable water supply for the City of Las Vegas and the surrounding metropolitan area that is situated in a desert. Not surprisingly, water conservation measures dealing mostly with outdoors water use is a critical component of their supply plan now and in the future.

The second meeting, held in Biloxi, Mississippi, was hosted by Mayor A.J. Holloway. Biloxi is situated 15 miles east of Gulfport – the land-fall location of Hurricane Katrina in 2005. We saw, first-hand, the extent of the devastation caused by Katrina's storm surge, wind and flooding. Local officials from the cities of Biloxi and Hattiesburg provided detailed information on the dam-

age and the recovery effort. The magnitude of the destruction of public infrastructure and private property was astounding. Water supply was knocked out as lift stations were inundated by water. Local managers used portable generators to get the water running within a few days. The wastewater collection systems were heavily damaged by the storm surge and the receding wave. Pipes were broken and clogged, and are still being assessed for replacement or rehabilitation. We also learned that many rate payers evacuated and some have not returned. This has hampered the cities' ability to meet bond repayment obligations. The recovery effort appears to require a long-term commitment.

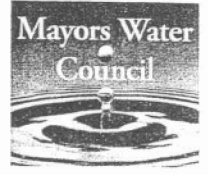
Also in this edition of the MWC Newsletter we are pleased to include a feature story written by Port St. Lucie (FL) Mayor Bob Minsky and his assistants about water infrastructure development in a growing urban center. Mayor Minsky provides a sobering view of the work involved with rapid urbanization and the need to provide water and wastewater services while also protecting natural resources and the environmental quality of Port St. Lucie. Mayor Minsky explains how the city was able to strike a workable balance between residential development, investment in water infrastructure and environmental protection.



Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

Fall 2006



PORT ST. LUCIE from page 2

October 1, 1994. At that time, the utility had 17,228 water customers and 10,800 wastewater customers.

System Expansion Plan Driven by Public and Economic Health Concerns:

The city embarked on an unparalleled multi-phased water and wastewater expansion program that relied on a utility special assessment methodology. Under this program, property owners are assessed their share of costs associated with the infrastructure improvements within their respective neighborhoods. Driving the program was the clear understanding (supported by the local Health Department) that the continued construction of up to four septic systems per acre was jeopardizing the health of thousands of residents. The septic systems threatened to pollute the ground water supply and contaminate private shallow aquifer wells, the only source of residential water.

While the health of residents and the protection of the area's natural water resources was a primary concern, a second concern was the economic health of the community. Significant commercial development was doomed without an adequate water system. The absence of a diversified tax base that commercial development could bring would place the cost burden of providing all public services on the single-family residential property owner. Additionally, continuing to use private septic systems would limit house sizes, and thus property values. And that problem translated into limitations on the city's property tax revenues.

A Rocky Start:

The first seven phases of the assessment program, which included extending potable water mains, low-pressure sewer mains and all related equipment to nearly 60,000 lots throughout the north-western, central, and southwestern portions of the city is complete. The final phase of the program is under construction and is scheduled to be in service by early 2007. When complete, this last phase will provide water service to nearly 100 homes and sewer service to approximately 1,000 homes. These properties have always had city water service, but have had to rely on private septic systems.

The first assessment notices were mailed to nearly 40,000 property owners in the summer of 1994. The notices were not generally well received. Administrative support staff charged with responding to related phone calls received bomb threats! The first public hearing was so heavily attended that the line of property owners wanting to voice their opinions against the program spilled out of the City Council Chambers, into the City Hall lobby, and further out into

parking lots. Tents, bleachers and television monitors were set up in the parking lot to accommodate the overflow crowd at the second public hearing. Those wishing to speak had to pre-register, and they were issued numbered tickets. Time and time again, owners stated they weren't necessarily against the concept of the program, but instead they feared the financial hardship it might cause them.

The City Council clearly heard its constituents and implemented several measures to lessen financial burdens related to the assessment program and for connection fees, and this attempt to recognize residents concerns eventually proved to be the key to building public support.



Port St. Lucie Mayor
Robert Minsky

Assessments:

1. Extensive research determined that a low-pressure sewer system would best serve Port St. Lucie's residents in lieu of a gravity system. A low-pressure system substantially lowered the cost over a gravity system. Those cost savings were realized in part by reducing pipe purchase costs, and placement at three feet below ground instead of much deeper for a gravity system. By limiting the depth cost savings were realized because de-watering was not required and the contractor could utilize smaller equipment.

2. Owners could choose to pay their assessments in full before an established cutoff date, and they received a discount on their payment.

3. Owners who were not able to pay the assessment up front were allowed to pay it over a 20-year period (interest included). Annual billings appear on the annual property tax bill; therefore, most residents actually make monthly payments via escrow accounts attached to their mortgages that are intended to cover property taxes, home insurance, etc.

4. Homesteaded property owners who owned up to three contiguous vacant lots were allowed to have the lot/s exempted from the assessment until such time that they choose to develop them. Owners seeking the exemption were cautioned that the exempted assessment, plus all accrued interest, would be immediately due and payable before any building permit could be issued for the exempted lots.

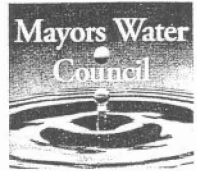
see PORT ST. LUCIE on page 4



Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

Fall 2006



The Urban Water Council Discusses the Impact of Global Warming on Community Water Resources

By Rich Anderson

Albuquerque (NM) Mayor Martin J. Chávez, Chairman of the Urban Water Council convened a meeting of the Council on June 2, 2006 in conjunction with the Conference of Mayors Annual Meeting in Las Vegas. Mayor Chávez welcomed three experts who addressed global warming and community water resources. The experts offered a sobering view of future water management challenges.

Brad Udall, Director of Western Water Assessment at the University of Colorado Regional Integrated Science Center, discussed on-going joint research with the National Oceanic and Atmospheric Administration. Udall stated that we are currently experiencing a period of global warming, although he could not say with great certainty how long the current warming trend

might last. Evidence of warming is based on a 30 percent elevation of atmospheric carbon dioxide since 1800; global temperatures up by 1°F since 1970; and, a rise in sea level of 4-8 inches since 1900. He also mentioned that 985 of 1000 Alaskan Glaciers are receding and only 15 are growing, due mainly to a 3°F increase during the 20th Century.

According to Udall's review of published research future warming may range between 2.5°F to 10°F. The estimated range is broad due to uncertainty about future emissions from human activities and because of scientific uncertainty. The impacts of global warming include: higher maximum temperatures, greater frequency of extreme hot days, higher minimum temperatures. Additionally, coastal cities can expect rising sea levels of 4 inches

see ANNUAL MEETING on page 5

PORT ST. LUCIE from page 3

Connection Fees:

1. Working closely with the Florida Department of Environmental Protection, the state's regulatory agency governing the utility, the city obtained a variance from state laws related to mandatory connections. The result was that homes with private wells and septic systems in good working order do not have to connect to the city's systems until one or the other fails.

2. When an existing residence needs or desires connection to city utility services, the homeowner can finance their connection fees over a 10-year period with no interest.

3. Upon connection to the city's water system, existing homes are able to retain use of their private wells for irrigation purposes.

4. All new construction is required to connect to the city's utility system. All associated fees must be paid in full up front as part of the building permit issuance process.

Program Popularity Grows out of Tragedy:

Tragedy struck Port St. Lucie in April 1999 when wildfires destroyed 40 homes in neighborhoods not yet served by city water. Because fire hydrants were not available for use, firefighters had to haul water in tanker trucks and/or drag local drainage canals and drop water from helicopter buckets. Neighborhoods where the

HISTORICAL GROWTH OF PORT ST. LUCIE'S UTILITY

When the City assumed ownership of the Utility:

- 1994 water connections – 17,228
- 1994 sewer connections – 10,800

Today:

- January 2006 water connections – 53,188
- January 2006 sewer connections – 34,754

fires occurred were not scheduled to receive water service for a year or more. Thus, the City Council directed that the city's contractor immediately begin constructing of an eight mile emergency fire loop water main circling the affected areas. The fire loop and 100 additional fire hydrants significantly improved fire fighting abilities for those neighborhoods until the proposed water distribution system could be completed in those areas.

Now the city is completing the last phase of water & sewer installation so that every neighborhood in the city will be con-

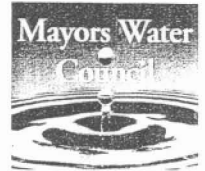
see PORT ST. LUCIE on page 5



Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

Fall 2006



PORT ST. LUCIE from page 4

nected. As a result of the project, 61,767 customers now have city water, and 43,472 have city sewer service. And many thousands more are anticipated in the next decade. The utility debt for all this growth is now nearing \$381 million, mostly in outstanding high-rated bonds, but the cost has been a wise investment because the expansion has helped the city to become the fastest growing city in the nation, according to the U.S. Census Bureau, and taxable prop-

erty values grew by 40 percent in 2004, and 42 percent in 2005. Both years are records in Florida, surpassing even the best of boom times in cities like Orlando, Boca Raton, and Miami Beach.

Donna Rhoden is Utilities Public Information Manager for the City of Port St. Lucie.

Ed Cunningham is Public Information Coordinator for the City of Port St. Lucie.

ANNUAL MEETING from page 4

to as much as 3 feet due to the thermal expansion of sea water and melting glaciers. Udall stated that cities can expect average precipitation increases and greater variation in rain intensity.

Water managers facing familiar challenges such as population gains and losses, normal climate variability and competition for finite water supplies will face the additional challenges posed by global warming. He stated that climate is not static, and planning on past patterns may be shortsighted. Water managers should reconsider how they incorporate extreme weather events in planning and forecasting. Udall suggested that water conservation is critical to water supply resiliency and to reduce water shortage vulnerability.

U.S. EPA's Dr. Joel Scheraga, National Program Director for Global Change Research Program, agreed that a warming trend is in effect. He stated concern about community water resources because climate is the dominant factor governing the occurrence, distribution, and movement of water within watersheds. Understanding the risks posed by climate variability to water systems is a central focus of water resources management. Such an understanding will be critical for our ability to meet future water supply needs, comply with water quality regulatory requirements, design and properly plan water infrastructure, and protect our fragile ecosystem.

Scheraga talked about an assessment tool that EPA has developed for communities that would help reduce the likelihood of future community water resources impacts. The tool, named "CAT", is intended to aid cities in developing strategies to "adapt" to future climate change conditions. The tool relies on inputs of local watershed information. It can help water managers: assess how increases in precipitation of 10%, 20%, 30%, etc. over historical conditions will influence non-point pollution loading to a stream; assess the flooding caused by an historical extreme weather event given recent increases in urban development within the watershed; assess the



Wauwatosa (WI) Mayor Theresa M. Estness; Port St. Lucie (FL) Mayor Robert E. Minsky; Albuquerque (NM) Mayor Martin J. Chávez, Chairman; Dr. Joel E. Scheraga, US EPA; Pleasanton (CA) Mayor Jennifer Hosterman; American Water CEO Don Correll; and Southern Nevada Water Authority Director Ken Albright

future effectiveness of a proposed water quality limit implementation plan under a projected climate change scenario.

Mr. Ken Albright, Director of Groundwater Resources for the Southern Nevada Water Authority (SNWA) provided examples of water management in stressed regions that suffer from naturally arid conditions, drought events and the new pressures related to global warming and climate change.

The Authority was formed in 1991 to address Southern Nevada's unique water needs on a regional basis. It is responsible for regional water supplies, ensuring water quality, and developing and administering conservation programs.

see **ANNUAL MEETING** on page 6