

**WATER UTILITIES COMMITTEE REPORT**

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# **WATER UTILITIES COMMITTEE REPORT**

## **Members**

The Water Utilities Committee consisted of the following individuals:

- Scott Gabrielson, Chair
- Doug Kelly
- Monty Knox
- Frances Pignone
- Irby Pugh

It should be noted that Commissioner **Irby Pugh** served as a member of this Committee until his untimely death on January 28, 2006. His focus on water utilities issues and his tireless effort to find solutions in the citizens' best interest, contributed greatly to this report.

## **Meeting Schedule and Presenters**

The Water Utilities Committee (the "Committee") held its first meeting on August 23, 2005 and met on ten separate occasions, concluding its deliberations on February 17, 2006. A chart compiling the Committee's schedule of meetings and the presenters is attached as Appendix A.

## **Side-By-Side Comparisons**

A detailed Side-By-Side Comparison of the data presented and considered by the Committee is attached as Appendix B. The data cited in the Side-by-Side Comparison is information provided by either Orange County or the City of Orlando and is not based on any independent calculations or studies prepared by the Committee.

## **Findings of Fact**

The following findings of fact were determined by the Committee to be of significance and are the basis for their conclusions and recommendations:

*Utilities Fact #1* Those aspects of water that fall under the purview of government should be viewed as a single resource that is managed, delivered, and/or processed in several modes. Water Utilities should be viewed as a four-part service: provision of potable water (drinking water); processing of wastewater (sewage) and distribution of non-potable reclaimed water; treatment and reuse of stormwater; and, processing of

bio-solids. Bio-solids are the result of sewage treatment at wastewater treatment facilities.

*Utilities Fact #2* The long-term ability to accommodate growth is directly related to having an adequate water supply and sufficient wastewater treatment capacity.

*Utilities Fact #3* Orange County's Water Division of the Utilities Department provides *potable water service* to the unincorporated areas of Orange County. The Orlando Utilities Commission (OUC), a part of the City of Orlando, provides the same service to City of Orlando residents.

*Utilities Fact #4* Both Orange County and the City of Orlando provide *wastewater service*. The County's Water Reclamation Division of the Utilities Department and the City's Wastewater Process/Operation Division of the Public Works Department are the service providers.

*Utilities Fact #5* The City of Orlando Public Works Department has responsibility for stormwater management and has a dedicated funding source, the stormwater utility fee, for this purpose. In contrast, Orange County does not have a dedicated stormwater management funding source. Orange County has enacted but not implemented an ordinance that provides for a stormwater utility fee.

*Utilities Fact #6* Orange County stormwater responsibilities are apportioned out to three departments:

- The Public Works Department has the responsibility for making capital improvements; maintaining stormwater retention ponds, stormwater drains and lines; and, establishing subdivision development stormwater design standards.
- The Community and Environmental Services Department's Environmental Protection Division oversees water quality, particularly in surface water within the County.
- The Utilities Department is studying the integration of stormwater into the water supply.

*Utilities Fact #7* Interlocal agreements between Orange County, the City of Orlando, and OUC have been used to resolve issues and achieve efficiencies in certain areas (e.g. billing, territorial boundaries, interconnections, etc.). Existing utilities, territorial agreements establish service boundaries, include methodology to modify those boundaries, and provide for limited system interconnection. Examples of ongoing cooperative projects include:

- Cocoa, Reedy Creek, Orange County and Toho Water Authority. The group is called CROT and has a joint integrated water resources project that is already underway.

- The St. Johns River/Taylor Creek Reservoir Water Supply Study, estimated at between \$4 and \$5 million, involves Orange County, OUC, the City of Titusville, the City of Cocoa, the Toho Water Authority, East Central Florida Services, Inc. (Deseret), the St. Johns River Water Management District (SJRWMD), and the South Florida Water Management District (SFWMD). This project aims to develop a surface water supply source to supplement groundwater in order to preserve the drinking water aquifer.
- Orange County Environmental Protection Division maintains a biological laboratory for surface water analysis and runs samples for the City of Orlando.

*Utilities Fact #8* Orange County and the City of Orlando have cooperated on a number of surface water service issues. Each governmental entity has a stormwater master plan and, in the past, they have worked together to clean up various lakes (e.g. Lake Wade, Clear Lake, Lake Fairview, Lake Mann, Lake Holden). Orange County, the City of Orlando, and the Water Management Districts have joined resources to take aerial photos and developed topographical mapping of southern and eastern Orange County. The Watershed Atlas is a shared computer program used by both entities for dissemination of water resource information to the public.

*Utilities Fact #9* Orange County, the City and OUC currently cooperate in the exchange of materials for emergency piping repairs. The same level of cooperation exists for treatment facility repairs, as well. However, because of differences in the treatment processes and the equipment used by each entity, there is less opportunity for commonality in this area. Advanced equipment, such as computer control and telemetry systems, is usually site and treatment process specific. Orange County and the City of Orlando have two separate, incompatible, control systems. This limits the efficiencies that could be gained from cooperation without consolidation. The City has gone with an open architecture computer system so they can communicate with other vendors systems. (Source: Alan Oyler, City of Orlando). Orange County's computer system presently has less "open-system" flexibility.

*Utilities Fact #10* The development of a joint Bio-Solids processing facility may offer an opportunity for consolidation, depending on engineering and safety concerns, such as transporting the bio-solids. Currently, there is no coordinated plan for treatment and use of the bio-solids resulting from the treatment of sewage at wastewater treatment facilities.

*Utilities Fact #11* Master planning for reclaimed water facilities is an area where all government entities should work together. Volusia County, for example, levies a stormwater management special assessment that funds their stormwater "authority" consisting of 14 jurisdictions. Stormwater management is not paid by an ad valorem tax. The two-state Water Management Districts (WMD), that cover Orange County, issue the Consumptive Use Permits (CUP) that control the amount of water available for various

uses and establish rules and regulations related to Stormwater. The WMDs are statutorily enabled to produce and wholesale water for consumptive use.

*Utilities Fact #12* There are challenges with combining Orange County and the City of Orlando stormwater services. There are both funding and land availability differences that presently complicate combining the two stormwater systems. The funding for stormwater services is different for County and City, with the City having a dedicated funding source for stormwater management, but having limited space for handling Stormwater. The County, on the other hand, has more land for handling stormwater, but has not provided dedicated funding.

*Utilities Fact #13* Orange County has previously adopted a stormwater utility fee, but never implemented it through the adoption of a rate. Testimony given by representatives of agricultural interests in East Orange County questioned the equity of the application of the stormwater utility fee in its current form to agricultural properties in East Orange County and suggested that the fee would place additional pressure on owners to discontinue agricultural uses and to develop their properties. The agricultural use of property is of value to Orange County by assisting aquifer recharge, by limiting stormwater runoff, by providing open space, and by retaining and promoting a rural culture.

*Utilities Fact #14* Water basin hydrologic boundaries do not recognize political jurisdictions, complicating both water production and stormwater drainage issues. Orange County and the City of Orlando are required to file separate National Pollutant Discharge Elimination System (NPDES) permits required by the Federal government. Although not required to cooperate in meeting permit conditions, they are required to cooperate in attempting to improve water quality. The County and City have an interlocal agreement regarding the responsibility for control of pollutants that enter the stormwater system and flow between the jurisdictions.

*Utilities Fact #15* It is anticipated that in the future, there will be more stringent federal requirements for stormwater quality. Thus, stormwater management will become more costly and perhaps offer greater incentive for cooperation on permits.

*Utilities Fact #16* The Orlando Utilities Commission (OUC)/City of Orlando Water Resource Management Optimization Study was authorized by OUC in March 2005. The firm CH2M HILL, a nationally recognized consulting firm with expertise in utility business practices, performed the study. The purpose of the study was to examine the potential for consolidation of OUC's potable water and the City's wastewater and reclaimed water services; and to recommend a business plan that would offer the greatest benefit to the citizens of Orlando and OUC customers. An executive summary was completed in November 2005 and made available to the Committee. It recommends that OUC water operations and City wastewater operations not be consolidated at this time due to insufficient benefits relative to the potential risks involved. The final detailed report was delivered to the Committee on January 30, 2006, and the findings contained therein

may impact any recommendations by the Commission. The water division of OUC currently provides less than 10 percent of total OUC revenue. (Source: OUC).

*Utilities Fact #17* Testimony given by water resource experts appearing before the Committee is summarized below:

- Collaboration and partnerships are important in the provision of water services.
- One expert advocated Integrated Water Resource Management. Integrated Water Resource Management refers to using comprehensive planning and management for the water resource. In other words, treat the production, distribution, disposal, and reuse of water as a whole rather than apportioning responsibility to different agencies, governments, or departments of governments without conferring with each other. Water is used not only for human consumption, but also for agricultural, business, and commercial activities as well as for maintaining natural systems. Producing and distributing water at a reasonable cost by using the most appropriate source of water with appropriate regard for maintaining natural systems should be the goal of all water management activities.
- Wastewater is a water of value.
- Stormwater should be managed to enhance potable water resources and thereby delay the need to implement more costly water supply alternatives such as reverse osmosis, also known as desalinization.
- A Burton and Associates 2002 Financial Study showed that consolidation of sources of water services in Volusia County would result in operational efficiencies.
- Governments that manage water resources efficiently and cooperatively will receive more favorable consideration from regulatory agencies.
- We will always have water; the essential questions to be addressed are who will get cheap water, whether adequate supplies will be readily available, and who will have to pay for the development of more expensive alternative water resources.

*Utilities Fact #18* The Jacksonville Electric Authority (JEA), an independent authority set up by the City of Jacksonville, began providing the water and sewer service for the City of Jacksonville and Duval County as of June 1, 1997. Previously, water and sewer were in the City of Jacksonville Public Works Department and stormwater management was in another city department. The City of Jacksonville was under a Federal EPA administrative order for sanitary sewer overflows. The City Commissioners and the JEA Board believed that there would be benefits, both financially and operationally, if responsibility for water, both potable water and wastewater, could be conveyed to JEA.

The JEA Board consists of seven members, appointed by the Mayor of Jacksonville and approved by the City Council. The format ensures appropriate representation for the City on the JEA Board. The Study Commission, via a conference call, received testimony from key JEA personnel. The following is a summary of the Commission meeting held on December 16, 2005.

- Consolidation has resulted in synergy on construction projects, financing and management (e.g. water, sewer, and electric work crews are managed by one manager). Reclaimed water is being used for irrigation and for cooling the JEA electric plant. There are economies of scale and of geography.
- The JEA has leveraged utility system acquisition and expanded to a four-county system, serving about 75 to 80% of the area in the four counties - Duval, St. Johns, Nassau and Clay. This expansion has allowed for the movement of water resources within the system by connecting water supply and disposal systems.
- The financial benefits of consolidation to residents in the four-county area have been substantial. There have been no electricity rate increases in 11 years and there have been no water/sewer rate increase in seven years.
- At the time of the consolidation, there were 750 employees. Today the JEA has approximately 380 employees. The consolidation did not result in either employee layoffs, or salary or benefit reductions for the merged workforce. Instead, the workforce reduction has occurred naturally through attrition, retirement, etc. Existing union agreements were also preserved. Pursuant to the testimony provided, the smaller workforce is a more effective workforce with improved opportunities for training and recruitment. During the same period, the number of water customers served has increased substantially from 90,000 to 260,000. Bond ratings for water utility bonds were improved. The consolidated JEA has allowed for the improvement and replacement of existing water lines. The benefit to the participating governments has been significant with JEA able to return significant monies to each of them. The current formula provides Duval County with an eight percent contribution and a lesser amount is provided to the other participating counties.

*Utilities Fact #19* The consolidation of smaller wastewater treatment facilities will typically result in operational and capital efficiencies. A wastewater treatment facility processing up to 25 million gallons per day (MGD) maximizes efficiency; a larger plant is generally not more efficient because of the need for longer transmission lines.

*Utilities Fact #20* The Orange County Utilities Department's Laboratory presently provides service to the Utilities Department, which includes the Water, Wastewater and Solid Waste Divisions and the Environmental Protection Division.

*Utilities Fact #21* There is no formal structure for information exchange between the water entities of Orange County and the City of Orlando, although there is currently

strong cooperation between them that is based on the personalities and professional commitment of the individuals involved.

## **Conclusions**

Based upon testimony received by the Committee members during its various meetings, the Committee unanimously adopted the seven conclusions that follow at their meeting held on February 17, 2006:

*Utilities Conclusion #1* Integrated Water Resource Management would benefit Orange County and the City of Orlando. The water resource consists of potable water, wastewater, and stormwater, and should be addressed as one resource. It is clear that low cost ground water is becoming an increasingly limited resource.

*Utilities Conclusion #2* A single entity for managing water resources could: ignore political boundaries; maximize the efficient use of combined facilities; combine workforces; repair facility and distribution lines in a timelier manner; provide greater economic leverage when entering into vendor contracts; allow for more efficient utility planning; strengthen bond ratings; and improve revenues to the participating governments.

*Utilities Conclusion #3* The Jacksonville Electric Authority (JEA) water department has achieved efficiencies through consolidation. Orange County and the City of Orlando should look at consolidating water services to see if similar efficiencies could be found for both jurisdictions.

*Utilities Conclusion #4* In the area of stormwater management, because of the special challenges created by its more intense urban development, the City of Orlando has imposed a stormwater management fee and currently devotes substantial revenues to deal with its stormwater management issues. Orange County is facing similar issues.

*Utilities Conclusion #5* Orange County and the City of Orlando already engage in regular joint meetings related to specific projects such as Conserv II, interconnection of systems, regulation and disposal of bio-solids, new and changing regulations from both state and federal governments, and other common utilities issues.

*Utilities Conclusion #6* Savings may be attained through Orange County and the City of Orlando cooperating or consolidating laboratory services such as Chemical Laboratory.

*Utilities Conclusion #7* Coordination of a Bio-Solids Plan would be of great benefit to Orange County, the City of Orlando and their residents.

**Recommendations**

Consolidation of the Orange County, City of Orlando, and OUC water services was studied for efficiencies in service delivery, economies of scale, opportunities for more efficient use of the area water resources and enhanced intergovernmental cooperation, utility cost savings for the residents of the area, and other related issues. The Committee recommended and the Study Commission adopted the following recommendations for further consideration by both the County and the City:

**UTILITIES RECOMMENDATION #1**

That Orange County, the City of Orlando and OUC immediately establish a joint committee or joint committees, consisting of high-level technical staff and policy makers, to evaluate issues involved in consolidating OUC water production with the City of Orlando and Orange County departments involved in water production, water distribution, wastewater collection and treatment, reclaimed water distribution and stormwater treatment with the goal of consolidating their respective water systems. These issues include:

- 1) The efficiencies and cost savings to be gained for the residents of Orange County and the City of Orlando.
- 2) The financial impacts to OUC, the City of Orlando and Orange County.
- 3) The operational impacts to the respective entities.
- 4) The impacts to the respective workforces.
- 5) The methodology for dealing with existing permits, contracts and agreements.

Pending the report of the technical consolidation study cited in Utilities Recommendation #1, the following additional issues should be addressed:

**UTILITIES RECOMMENDATION #2**

That Orange County implement a rate for the previously approved Stormwater Utility Fee.

**UTILITIES RECOMMENDATION #3**

That Orange County determine if the Stormwater Utility Fee could be adopted countywide under the Orange County Charter provisions regarding environmental protection.

**UTILITIES RECOMMENDATION #4**

That leadership of the various water utility divisions should establish a more formal mechanism to regularly meet to discuss water resource issues and opportunities for collaboration, and that Orange County and the City of Orlando establish a Coordinating Committee to periodically look towards compatibility of equipment and material. Orange County and the City of Orlando may be able to purchase water services equipment so that equipment interchange would be possible. The compatibility would provide backup and redundancy in the event of a natural disaster.

**UTILITIES RECOMMENDATION #5**

That Orange County and the City of Orlando jointly explore the development of a bio-solids processing facility.

**UTILITIES RECOMMENDATION #6**

That Orange County and the City of Orlando review the opportunities for sharing a chemical and microbiological laboratory.