

V.4 DRAFT Water Utilities Committee Report

(Updated 02/19/06)

V.4.1 Members The Water Utilities Committee Members were:

- **Scott Gabrielson** – Chairman
- **Doug Kelly** – Member
- **Monty Knox** – Member
- **Frances Pignone** – Member

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 efforts to find solutions in the citizens' best interest, contributed greatly to this report.

V.4.2 Meeting Schedule and Presenters

The Water Utilities Committee held its first meeting on August 23, 2005 and concluded its deliberations on _____, 2006. The Committee meeting dates, presenters, and formal presentations given to the Committee are shown in Figure V.4.1.

V.4.3 Side-By-Side Comparison

The Water Utilities Services Side-By-Side Comparison is at Appendix D. The Side-By-Side presents data the Committee thought relevant to their deliberations and conclusions.

V.4.4 Executive Summary

(To be written after final decisions on recommendations) An Interlocal Agreement covering potable water along the lines of the Amended and Restated Orlando Utilities Commission/Orange County Water Service Territorial Agreement (with a term of 25 years from May 4, 1994) and the City of Orlando/Orange County Wastewater Service Territorial Agreement (with a term of 25 years from May 4, 1994), both in effect until 2018, could ignore political boundaries and achieve some efficiencies. The advantages that have flowed from the cooperation among Orange County, the City of Orlando, and the Orlando Utilities Commission (OUC) such as Conserv II are due to good cooperation on the part of leadership that has actively sought areas for working together to achieve good things for citizens.

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V.4.5 Findings

The Committee finds that:

V.4.5.1 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 storm water, and processing of bio-solids. (Bio-solids are the result of sewage treatment at wastewater treatment facilities.)

V.4.5.2 The long-term ability to grow is tied to having adequate water supply and wastewater treatment capacity.

V.4.5.3 Orange County's Water Division of the Utilities Department provides the potable water service to the unincorporated areas of Orange County. The Orlando Utilities Commission (OUC), part of the City of Orlando, provides the same service to City of Orlando residents.

V.4.5.4 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.

V.4.5.5 The City of Orlando Public Works Department has responsibility for storm water management and has a dedicated funding source, the storm water utility fee, for this purpose.

V.4.5.6 In contrast, Orange County does not have a dedicated storm water management funding source, although it has passed but not implemented an ordinance that provides for a storm water utility fee. Orange County storm water responsibilities are apportioned out to three departments:

- The Public Works Department has the responsibility for making capital improvements; maintenance of storm water retention ponds, storm water drains and lines; and establishing subdivision development storm water 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 storm water into the water supply.

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V.4.5.7 Interlocal agreements between Orange County, the City of Orlando, and the Orlando Utilities Commission (OUC) have been used to resolve issues and achieve efficiencies (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) have a joint integrated water resources project that is underway.
- The St. Johns River/Taylor Creek Reservoir Water Supply Study (\$4-5M) 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.

V.4.5.8 Orange County and the City of Orlando have cooperated on a number of surface water service issues. They have worked together to clean up lakes (e.g. Lake Wade, Clear Lake, Lake Fairview, Lake Mann, Lake Holden), and each government has a storm water master plan. Orange County, the City of Orlando, and the Water Management Districts have done 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.

V.4.5.9 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 equipment used by each entity, there is less opportunity for commonality. 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.

V.4.5.10 The development of a joint Bio-Solids processing facility may offer an opportunity for consolidation, depending on engineering and safety concerns (transporting the bio-solids). There is not currently a coordinated plan for treatment and use of the bio-solids resulting from the treatment of sewage at wastewater treatment facilities.

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V.4.5.11 Master planning for reclaimed water facilities is an area where all government entities should work together.

V.4.5.12 Volusia County levies a storm water management special assessment that funds their storm water “authority” consisting of 14 jurisdictions. Storm water management is not paid by an ad valorem tax.

V.4.5.13 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.

V.4.5.14 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 storm water 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 storm water, but has not provided dedicated funding.

V.4.5.15 Water basin hydrologic boundaries do not recognize political jurisdictions, complicating both water production and storm water 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 do in attempting to improve water quality. The County and City have an Interlocal agreement regarding the responsibility for control of pollutants that enter the storm water system and flow between the jurisdictions.

V.4.5.16 It is anticipated that in the future, there will be more stringent Federal requirements for stormwater quality; thus, stormwater management will be more costly and perhaps offer more incentive to cooperate on permits.

V.4.5.17 The Orlando Utilities Commission (OUC)/City of Orlando Water Resource Management Optimization Study was authorized by the Orlando Utilities Commission 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 most 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 30th, 2006, and may impact any recommendations by the Committee. The water

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division of OUC provides less than 10 percent of total OUC revenue. (Source: OUC)

V.4.5.18 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, treating the production, distribution, disposal, and reuse of water as a whole rather than apportioning responsibility to different agencies, governments, or departments of governments without reference to each other. Water is used not only for human consumption, but also for maintenance of natural systems, for agriculture, business, and commercial activities. Producing and distributing water at a reasonable cost 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 delay the need to implement more costly water supply alternatives such as reverse osmosis (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 question becomes 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.

V.4.5.19 The Jacksonville Electric Authority (JEA), an independent authority set up by the City of Jacksonville, began providing the water and sewer service for Jacksonville and Duval County on 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 Federal EPA show cause order because of environmental concerns. The City Commissioners and the JEA Board believed that there would be benefits, both financially and operationally, if responsibility for water (potable water and wastewater) could be conveyed to JEA. (Seven members, appointed by the Mayor and approved by the City Council, make up the JEA Board. This ensures appropriate representation for the City on the JEA Board.) Below is a summary of comments made by JEA personnel at the December 16, 2005 Consolidation of Services Study Commission Meeting.

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- 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 75-80% of the area of the four counties (Duval, St. Johns, Nassau, and Clay). This expansion has the benefit of being able to move water resources around within the system by means of interconnection of water supply and disposal systems.
- The benefits of consolidation to residents in the four County area have been **substantial**. There has been no electricity rate increase for 11 years. There has been no water/sewer rate increase for seven years.
- There were 750 employees when the consolidation occurred; there are now approximately 380 employees. There were no employee layoffs, no salary or benefit reductions for the merged workforce. The workforce reduction occurred through attrition, retirement, etc. Existing union agreements were preserved. 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 increased from 90,000 to 260,000. Bond ratings for water utility bonds were improved. Improvement and replacement of existing water lines were to be accomplished. The benefit to the participating governments has been significant with JEA able to return significant monies to each of them.

V.4.5.20 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.

V.4.5.21 The Orange County Utilities Department's Laboratory presently provides service to the Utilities Department (Water, Wastewater and Solid Waste Divisions) and the Environmental Protection Division.

V.4.5.22 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.

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V.4.6 Conclusions

Upon conclusion of deliberations, the Committee unanimously determined:

V.4.6.1 Integrated Water Resource Management would benefit Orange County and the City of Orlando. The water resource consists of potable water, wastewater, and storm water, and should be addressed as one resource. It is clear that low cost ground water is becoming an increasingly limited resource.

V.4.6.2 A single entity for managing water resources could ignore political boundaries, maximize the efficient use of combined facilities, a combined workforce, timely repair of facilities and distribution lines, economies on vendor contracts, more efficient utility planning, strengthened bond ratings and improved revenues returned to the participating governments.

V.4.6.3 The Jacksonville Electric Authority (JEA) water department has achieved efficiencies. Orange County and the City of Orlando should look at consolidating water services to see if similar efficiencies could be found for both jurisdictions.

V.4.6.4 In the area of storm water management, because of the special challenges created by its more intense urban development, the City of Orlando has imposed a storm water management fee and currently devotes substantial revenues to deal with its storm water management issues. Orange County is facing similar issues.

V.4.6.5 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.

V.4.6.6 Savings may be attained through Orange County and the City of Orlando cooperating or consolidating laboratory services. (e.g. Chemical Laboratory).

V.4.6.7 Coordination of a Bio-Solids Plan would be of great benefit to Orange County and the City of Orlando and their residents.

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V.4.7 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, utility cost savings for the residents of the area, and other related issues. The Committee recommends:

V.4.7.1 That Orange County and the City of Orlando and OUC immediately establish a joint committee or committees, consisting of high-level technical staff and policy makers, to evaluate issues involved in consolidating OUC water production with City of Orlando and Orange County departments involved in water production, distribution, wastewater collection and treatment, reclaimed water distribution and storm water treatment with the goal of consolidating their respective water systems.

These issues include:

- 1) Efficiencies and cost savings to be gained for the residents of Orange County and the City of Orlando
- 2) Financial impacts to OUC, City of Orlando and Orange County
- 3) Operational impacts to the respective entities
- 4) Impacts to the respective workforces
- 5) Methodology for dealing with existing permits, contracts and agreements.

During the pendency of the technical consolidation study the following issues should be addressed

V.4.7.2 That Orange County implement a rate for the previously approved Stormwater Utility Fee.

V.4.7.3 That Orange County determine if the Stormwater Utility Fee could be adopted countywide under the Orange County Charter provisions regarding environmental protection.

V.4.7.4 That the 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.

V.4.7.5 That Orange County and the City of Orlando jointly explore the development of a bio-solids processing facility.

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V.4.7.6 That Orange County and the City of Orlando review the opportunities for sharing a Chemical and Microbiological Laboratory.

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WATER UTILITIES COMMITTEE MEETING DATE	PRESENTER(S)	FORMAL PRESENTATION(S)
August 23, 2005	Daniel Allen , Deputy Director, Utilities Department, Orange County; Alan Oyler , Director, Public Works Department, City of Orlando; Rick Coleman , Director, Water Engineering and Technical Services, Orlando Utilities Commission (OUC)	City of Orlando Wastewater Division Presentation; Orange County Utilities Department Presentation
August 31, 2005	Rick Howard - City of Orlando Storm Water Division; Dr. M. Krishnamurthy – Orange County Public Works Water Management; Lori Cunniff – Orange County Environmental Protection Division Deodat Budhu – Orange County Roads and Drainage Division	
October 11, 2005	Committee Discussion	
October 26, 2005	Henry Dean – special consultant to the City of Orlando	
December 1, 2005	Teleconference with Bruce Mowry – Executive Director, Water Authority of Volusia	
January 17, 2006	Committee Discussion	
January 26, 2006	Committee Discussion	
February 6, 2006	Committee Discussion	
February 9, 2006	Committee Discussion	
February 17, 2006	Committee Discussion	

Figure V.4.1