

UTILITY ADVISORY COMMITTEE

The Indian River County (IRC) Utility Advisory Committee (UAC) met at 1:30 p.m. on Thursday, November 2, 2006, in County Commission Chambers, County Administration Building, 1840 25th Street, Vero Beach, Florida.

Present were Chairman Andrew Allocco, District 2 Appointee; Mark Grossman, District 1 Appointee; William Johnson, District 3 Appointee; Dr. Craig McGarvey (1:35 p.m.), District 5 Appointee; Carlton Miller, and John Tschinkel, Members-at-Large.

Absent was David Clayton, District 4 Appointee (excused).

Also present were IRC staff: W. Erik Olson, Director, and Cindy Corrente, Assistant Utilities Director; Michael Hotchkiss, P.E., Manager, Capital Projects; Himanshu Mehta, Environmental Engineer, Utilities Department; and Victoria Phillips, Staff Assistant IV.

Others present were: Jill Grimaldi, Project Manager, Camp Dresser & McKee, Inc.

Call to Order

Chairman Allocco called the meeting to order, at which time it was determined a quorum was present.

Approval of Minutes

Chairman Allocco asked if there were any additions or corrections to the minutes of October 5, 2006. There were none.

ON MOTION by Mr. Miller, SECONDED by Mr. Johnson, the members voted unanimously (5-0) to approve the minutes of October 5, 2006 as presented.

Discussion on Alternative Water Supply for Indian River County

Mr. W. Erik Olson, IRC Utilities Director, explained IRC's Reverse Osmosis (RO) system water source had originated from the Floridan aquifer, which was 800 feet deep, and the intent at that time had been to select a water supply source with little opposition. He remarked 25 years ago, there had been virtually no competition other than the normal flow wells in the agricultural area, because

the Floridan aquifer had been considered quasi-pollutable at 800 feet deep as a result of chlorides.

Mr. Olson noted today everyone would be looking to the future to develop the County's source of water supply. He realized although the County had done a very good job using foresight 25 years ago in selecting the current Floridan water source, it was now time to recognize competition for this source of water required considering other future options.

Dr. Craig McGarvey arrived at 1:35 p.m.

Mr. Olson emphasized the catalyst for reviewing future sources came about when the County had to expand its North RO plant with six new additional Floridan wells approximately 700 feet deep, which were needed to meet the current growth occurring within the County. He added there had been some recent inappropriate remarks from the agricultural community relating to potential impacts the new wells might have on existing agricultural wells in the citrus industry. Mr. Olson further explained the citrus industry had relied on their Floridan flow wells during the winter months to offset frost impacts, in addition to certain times of the year when irrigation would be required.

Mr. Olson stated staff had now been looking at the alternatives which could include everything from desalinization to surficial, meaning the water would be pulled from the western reserve, and a separate water plant would be built to blend with the County's RO system. He remarked it could also be a combination of a variety of water sources. Mr. Olson emphasized it was not a small issue, because the decisions which would be made now would set the stage as to what would take place in IRC over the next 25 years in terms of a supply source.

Mr. Miller mentioned a few years ago, he had been involved in a consultant capacity, where the idea had been to make potable water out of wastewater treatment plants and compare the cost of using 60 inches a year of rainfall, which had been applied to the entire area. He indicated taking into consideration there would be percolation and evaporation, the water would be delivered from the sky and back pumped to storage for the Everglades, instead of letting it run out. Mr. Miller concluded that could be one of the approaches he would like to see IRC use if it was going to get involved with surface water.

Mr. Olson informed Mr. Miller his point had been well taken regarding surficial water as a source. He then went on to discuss a recent item which came before the Board of County Commissioners (BCC) by a representative of the St. Johns River Water Management District (SJRWMD), involving an exchange of 3,000 acres owned by SJRWMD for 6,000 acres of land held by an

agricultural company. He continued the 6,000 acres of newly acquired property would be combined with 4,000 acres of land currently owned by SJRWMD for a reservoir basin of nearly 10,000 acres to become available as a future water source. This would enable the 10,000 acre reservoir to store stormwater and then lessen the discharge of stormwater into the Indian River Lagoon from the C-24, C-25, and C-54 canals.

Mr. Miller informed him it was done quite often when there were huge volumes of water, and it was not uncommon to back pump water and put it somewhere else.

Mr. Johnson felt the most explored alternative had been the reservoir situation, and he felt whether it should be a permanent source of water needed to be fully examined. He realized desalinization had been too expensive for practical purposes, and he agreed the short term option regarding the aquifer situation should be very tightly controlled, because it was going to be drawn by Tampa and the bigger communities. Mr. Johnson opined IRC should put as much control as possible on the use of wells and felt strongly the Utilities Department would be phasing out the City's operations over a short period of time due to the economies of scale.

Mr. Olson advised there was a 50/50 funding program with IRC and SJRWMD relating to flow wells, which was being expanded so that when a development came in, the process of plugging would be accelerated since the wells would no be longer needed for agriculture.

A discussion followed concerning flow wells.

Mr. Tschinkel distributed the Water Reuse News for 2006, a copy of which is on file in the County Commission Office. He noticed the Tampa Bay seawater had been the largest desalination water source in the United States, and the projected water cost was \$2.64 per gallon, which included capital investment, operation and maintenance.

Mr. Olson asked about the \$2.64 per 1,000 gallon figure, and wondered if there was a lot of federal funding involved. Mr. Tschinkel indicated all he knew was to produce 1,000 gallons would cost \$2.64, which he supposed would be passed on to the user. He pointed out the higher the salinity, the more the water would cost.

Mr. Tschinkel continued reviewing the desalination plants in other areas of the United States and Virgin Islands.

Mr. Olson commented he would be doing a little more research on Tampa Bay because they had the largest desalinization plant in the State of Florida, and he was certain huge grants had been awarded; therefore, he wanted to make sure when he reviewed it, Tampa Bay had been capitalizing the costs generated by the local utility. He believed Tampa Bay probably received an excess of 30% in grants, but the interesting aspect was, membrane technology had changed dramatically in the last ten years, and would be totally different than what would be seen five years from now.

Mr. Tschinkel felt desalinization would be the best alternative, and for this reason, he had started looking around at energy sources and found information on wind and solar panels. He then distributed information entitled "Wind Energy Fact Sheet", a copy of which is on file in the County Commission Office.

Mr. Tschinkel remarked if cheaper power were available, then wind would be one way to proceed when employing desalinization. He indicated as solar panels became cheaper, it would help with the energy costs, and changes needed to be made because we had been told we could not expand and put more aquifers to begin with. Mr. Tschinkel summarized desalinization would be the best choice and using energy which was globally friendly, would be the best alternative.

Mr. Grossman wondered if the County planned reservoirs and captured surface water in West County, because there were about 6,000 acres out west which might end up going to Brevard County. He indicated anything done would be subject to review by SJRWMD competing with other districts, and would not be able to go much further west than SJRWMD because Southern Florida would be competing for that same water.

Mr. Grossman noted insofar as SJRWMD, IRC would be at a disadvantage because IRC was at the bottom of the district with the exception of the Palm Bay and Melbourne areas. He stated IRC had not been given any real opportunity to join with the bigger growth area south of us, such as St. Lucie and Martin Counties, which had a higher need to join together. Mr. Grossman observed desalinization sounded great, but wondered if IRC had really been thinking about funding a plant for IRC.

Mr. Olson informed him the reality was, IRC was at a point in time when these kinds of questions had to be asked because whatever decisions were being made now would be for 25 years from now, and today's water technology would be based on what had always worked traditionally.

Mr. Olson remarked the issue of ownership was a very ambiguous question as to the water out west and who had the rights to it.

Mr. Grossman asked if IRC could afford a desalinization plant 25 years from now and if there was the remotest possibility of funding that type of technology.

Mr. Olson informed him in the early stages, some ideas were going to be culminated and more specific information would be heard from SJRWMD, and the South Florida Water Management Districts. He spoke about segregation of basins, such as the City of Port St. Lucie where an application had been put in for a new series of wells.

Mr. Olson mentioned the five Water Management Districts operated the water systems within the state, and were a function of the Department of Environmental Protection (DEP). Mr. Miller asked if the Water Management Districts acted as a group or individually. Mr. Olson informed him they were under the DEP, and received legislative mandates.

Mr. Allocco interjected the key would be to find a more economical membrane system and a cheaper source of power. Mr. Tschinkel emphasized the membrane system had become better all the time and the potential cost of conventional energy had been going up. He felt it could be solved by going to an alternate energy source such as wind power or solar cells, the cost of which had been decreasing. Mr. Tschinkel believed the County had been heading in the right direction.

Mr. Johnson wondered if a decision were to be made to go into desalinization, where would the water come from, and how would the salt content of areas such as bays against the ocean be evaluated. Mr. Tschinkel responded if seawater were to be used, it would be \$4.00 per thousand gallons, but it would be possible to find brackish water from somewhere else. Mr. Olson indicated in the case of the Indian River Lagoon area, it would be somewhere in the range of 17 to 22 parts per thousand.

Mr. Olson indicated satellite plants were clearly a good option from a surficial standpoint and treating and blending with a generalized system might make sense. He continued it might be culminated into the best technology such as desalinization, and a plant could be basically reconstituted, and blended back with the network.

Mr. Grossman asked if infrastructure were put in to capture surface water in West County, if the water rights would belong to IRC. Mr. Olson said they

talked about it at the joint Brevard/Indian River County meeting a week ago, but it was not something which could be taken for granted. Mr. Olson commented the state had made it clear not to go with the traditional technology because otherwise, there were going to be problems.

Mr. Olson noted Brevard County was growing quite literally on the northern boundaries of IRC, and had critical issues because of Palm Bay's annexation.

Dr. McGarvey inquired since SJRWMD had a vested interest, what would be the purpose of the workshop. Mr. Olson informed him IRC had put in three wells for permitting and expected to have three more approved by SJRWMD in order to be able to construct and move forward with the three wells for the north expansion area. He remarked at the workshops, staff would make it clear about the three wells, and that a decision needed to be made in about a year what Plan "B" would be. Mr. Olson emphasized the decision was going to be on the basis of what would be considered permissible on the part of the regulatory agencies by the DEP and the SJRWMD.

Mr. Olson indicated it had been made clear the options would be limited to four or five practical ones such as desalinization, or surficial, and he had been aware there were regulatory driven requirements which would define how to make the decision quickly.

Dr. McGarvey remarked a lot of players would be taken out of the equation if one of the top recommendations involved desalinization, because it would put it under Mr. Olson's control, then he would only have to deal with the Water Management Control Districts. He was not sure whether that was the answer, but if the County were to make a decision within the next six months with something innovative, the County would stand a fair chance of getting some initial grant supplements on an expeditious basis.

Mr. Olson remarked if an option were to be selected, it was important to be realistic about the price tag associated with it.

Dr. McGarvey emphasized water was not going to be free and it was going to be a valuable and expensive commodity, just like gasoline.

Other Business

None

Adjournment

The meeting adjourned at 3:15 p.m.