

**DAVIE WATER AND ENVIRONMENTAL
ADVISORY BOARD
DECEMBER 14, 2004**

1. ROLL CALL

The meeting was called to order at 5:35 p.m. Board members present were Chair Tom Green, Paul Cirinese, Gail Ling, Ronald Phillips, Marlana Mosby and Donald Prichard. Also present were Utilities Director Daniel Colabella, and Board Secretary Jenevia Edwards recording the meeting. Vice-Chair Don Zane, Gary Gaffney, Hans Murzi and Barry Mowell were absent.

2. APPROVAL OF MINUTES: August 17, 2004

Mr. Phillips made a motion, seconded by Ms. Ling, to approve the minutes of August 17, 2004. In a voice vote, with Messrs. Gaffney, Murzi, Zane and Mowell being absent, all voted in favor. **(Motion carried 6-0)**

Self-introductions were made by Ms. Mosby and Mr. Prichard.

3. OLD BUSINESS

Mr. Colabella advised that Karl Kennedy of Calvin, Giordano and Associates would be making a presentation which had been scheduled for the October meeting which was cancelled. He indicated that Mr. Kennedy would be arriving late.

4. NEW BUSINESS

Ms. Ling advised that she spoke with Town Engineer Larry Peters who indicated that the last pipe scheduled to be installed for Vista Filare would not be done. She indicated that she was also advised by Mr. Peters that the Town did not want to go forward with eminent domain, therefore the pipe would not be installed. Mr. Colabella indicated that because the property owner would not allow Town staff onto the property, the Town needed a change order which would allow staff to go around the property. He commented that approval of the change order was required by the Town Council and was on the December 15th Council agenda.

Ms. Mosby spoke about the removal of trees located under power lines and asked if any thought had been given to tree topping rather than tree removal. Mr. Colabella indicated that there was an arborist on staff who would be invited to a meeting so that he could provide answers to her question. Ms. Mosby asked if the decision had already been made to remove the trees. Mr. Colabella indicated that he was sure some decisions had already been made; however, the arborist would be able to answer that question.

Ms. Ling asked if there was a mechanism to aerate drainage lakes when they were placed in a community. Chair Green indicated that the drainage district had information that would be available; however, on private property the association would be responsible. Mr. Cirinese suggested that Ms. Ling contact Brian Boyd at the Central Broward Water Control District who had a list of independent business owners and would be able to provide the information that was needed.

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A brief discussion followed regarding the removal of oak trees located under power lines with Mr. Phillips asking if the Town had any type of program to proactively remove those trees.

Mr. Phillips commented that beautification of an area was possible without creating a hazard for storm conditions which happened with the placement of oak trees under power lines.

Chair Green reiterated that Urban Forrester Michael Orfanedes would attend a board meeting to discuss the issue with Mr. Colabella suggesting that Mr. Orfanedes be invited to the February 2005 meeting.

Ms. Ling referred to construction of new homes within the Town and indicated that she had information that stated that trees would no longer be planted in swales but rather on individual properties. She asked if this was passed by Council or was still being discussed. Mr. Colabella indicated that this was a question for the arborist. A lengthy discussion followed regarding swale issues, placement of trees and the type of trees that could be planted in swale areas.

For the benefit of the new boardmembers, Mr. Kennedy explained that he was a consultant to the Town's Utilities Department employed by Calvin, Giordano & Associates. He discussed proposed improvements to the South Water Treatment Plant explaining the Town's utility system, the location of the Town's water treatment plants and indicating daily water usage. Mr. Kennedy indicated that the drinking water came from the Biscayne Aquifer which was approximately 100 feet below land surface. He commented on the water color when it came directly from the aquifer adding that the water was sent through a lime softening process before distribution. Mr. Kennedy commented that the organic matter that was left over from the lime softening process left a yellow tinge to water. Chair Green asked if polymer jelly was still being used to remove lime from the water with Mr. Kennedy responding in the affirmative. Mr. Colabella indicated that different things were used by different utility plants.

A lengthy discussion followed regarding the lime softening technology and the leftover residual color, chlorination and the reaction from the disinfection-by-products known as THMs which were formed during the treatment process to remove the color colored items from the water. Mr. Kennedy indicated that the more color that was removed, the fewer the amount of THMs was formed. He cited EPA regulation and added that the Town was currently within the EPA regulations for the concentration of THMs. Mr. Kennedy commented that there were more regulations to further reduce the concentration of THMs and the Town wanted to be proactive and remove the color in order to meet the upcoming set of regulations and also improve the water quality.

Mr. Kennedy explained that several technologies were looked at in order to improve the quality of water including costs. He added that the proposed process that the Town was installing was a lower cost treatment system which would allow the Town to operate for some

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time until the next stage of the regulations commenced. Chair Green asked if the change would be at the South Water Treatment Plant with Mr. Kennedy responding in the affirmative.

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Mr. Kennedy explained that that there was not much water production as well as lower color in the water and less disinfection-by-products from the north plant. He indicated that the wells on the north side were closer to bodies of salt water and the Water Management District would rather that those wells were not used.

Mr. Kennedy explained that the color could be removed completely from the water by placing large amounts of chlorine in it; however, in addition to the smell of the chlorine, there would be large amounts of disinfection-by products in the water. He added that this method for removing the color from water was practiced by most water treatment facilities in Florida, adding that this had been an effective treatment process until the EPA began regulating disinfection-by-products. Mr. Kennedy added it was discovered that the disinfection-by-products could possibly cause cancer and the EPA had regulated the use of another process to remove the color from the water before adding the chlorine.

Mr. Kennedy explained that the technology of a proposed process that the Town was planning to use was unique because it created ozone and iron which together reacted and removed the color from the water. He explained that the reaction was not well understood but it worked.

Mr. Colabella explained that the technology in question was being used for the first time in water treatment. He indicated that a base study was conducted and from that study if the process did not work the Town would not use it; however, if it showed that it would work on the water system, the Town would move forward. Mr. Colabella commented that this process would allow the Town to continue using its present system for another four years before building the new membrane plant.

Mr. Kennedy commented that the company providing the service was giving the Town a solid guarantee and if the process did not work, the Town would not have to pay for the service. He explained that additional pilot work was being conducted which would be completed within the next three months. Mr. Kennedy explained that process involving this technology adding that demonstrations as would take place on a full scale. Chair Green asked if there was anything bad that would come from the filtration process. Mr. Kennedy responded in the negative and explained the advantages of how the treatment process would work by removing any suspended particles in the raw water before it was treated.

There was discussion regarding commencement of the pilot work and how long this would last. Mr. Kennedy explained that while the pilot work was being done the full scale engineering design would also be taking place. He advised of the outcome in the event that the process failed. Mr. Phillips asked what steps would be taken by the Town towards a solution. Mr. Kennedy advised that there were other steps that could be taken; however, the cost would be much higher than that of the proposed new technology.

A lengthy discussion ensued regarding the length of time required by the State for the pilot testing, the type of maintenance and power generation. Mr. Kennedy explained the maintenance process and the power generation.

Chair Green asked how often reports had to be provided to the State and the federal government. Mr. Colabella indicated that reports to the State had to be provided monthly.

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Chair Green asked when the new process would become effective. Mr. Colabella indicated that it would be approximately one year. Ms. Mosby asked if the process had been tested in any other area whether effective or not. Mr. Kennedy advised that the process had been tested in Palm Beach County.

5. COMMENTS AND/OR SUGGESTIONS

There were no comments or suggestions.

6. ADJOURNMENT

There being no further business to discuss and no objections, the meeting adjourned at 6:25 p.m.

Date Approved

Chair/Board Member