2009 KEY LARGO WASTEWATER TREATMENT DISTRICT
COMMITTEE OF THE WHOLE
Transition Meeting
AGENDA

Tuesday Oct. 13, 2009 4:00 PM
9880 Overseas Hwy
Key Largo, FL 33037

Susan Hammaker
Norman Higgins
Charles Brooks
Andrew Tobin
Robert Majeska
Charles F. Fishburn

Chair
Vice Chair
Secretary-Treasurer
Commissioner
Commissioner
General Manager

PLEASE TAKE NOTICE AND BE ADVISED, that if any interested person desires to appeal any decision of the KLWTD Board, with respect to any matter considered at this meeting, such interested person will need a record of the proceedings, and for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Persons with disabilities requiring accommodations in order to participate in the meeting should contact the District Clerk at 305-43-804 at least 48 hours in advance to request accommodations.

A. CALL TO ORDER - PLEASE MUTE CELL PHONES
B. PLEDGE OF ALLEGIANCE
C. ROLL CALL
D. APPROVAL OF AGENDA WITH ANY ADDITIONS, DELETIONS, OR CONTINUANCES
E. APPROVAL OF MINUTES
F. SCADA PRESENTATION
G. ORGANIZATIONAL CHART
H. COMMISSION'S ROUNDTABLE
I. ADJOURNMENT
Meeting Date: Oct. 13, 2009  Agenda Item No. E

[ ] PUBLIC HEARING  [ ] RESOLUTION
[ ] DISCUSSION  [ ] BID/RFP AWARD
[X] GENERAL APPROVAL OF ITEM  [ ] CONSENT AGENDA

Other:

SUBJECT: Minutes of Aug. 11 Sept. 8, 2009

RECOMMENDED MOTION/ACTION:

Approved by General Manager
Date: 10-9-09

Summary Explanation/Background:

Resulting Board Action:
☐ Approved  ☐ Tabled  ☐ Disapproved  ☐ Recommendation Revised
The Key Largo Wastewater Treatment District Board of Commissioners met for a Committee of the Whole, Transition Meeting at 4:00 PM. Present were Commissioners Norman Higgins, Andrew Tobin, Robert Majeska, Charles Brooks, and Chairwoman Susie Hammaker. Also present the General Manager Charles F. Fishburn, District Counsel Thomas Dillon, Acting District Clerk Carol Walker, and other appropriate District Staff.

Commissioner Tobin led the Pledge of Allegiance.

APPROVAL OF AGENDA
Commissioner Higgins added the White Rhino Property (H-1) at 5 PM. Mr. Waits added a budget item as Item A-1. Mr. Dillon added a resolution as Item H-2. Chairwoman Hammaker added a letter from Mayor Achenberger as Item H-3.

Motion: Commissioner Tobin made a motion to approve the agenda as amended. Commissioner Higgins seconded the motion.

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Motion passed 5 to 0

PUBLIC COMMENT
The following persons addressed the Commission: Burke Cannon, Hammer Point, expressed concern over the fact that there are many properties in Hammer Point that will have to go through their drain fields to connect to the sewer. He also told the Board that there are many areas in Hammer Point where there are underground utilities and water lines on both sides of the street. Mr. Cannon reported that Hammer Point Association said that they are willing to listen and if it helps them and it is a customer relationship it might be ok but there is too much turmoil in Islamorada. Pauline Kline, Key Largo spoke in opposition to working with Islamorada and
would like to have a poll done of the residents of Key Largo to see what they want. The name of a polling company is Lake Research Partners Inc. Steve Gibbs, Free Press said that he would suggest that the Free Press run a poll.

MINUTES
Motion: Commissioner Brooks made a motion to approve the Minutes of July 14, 2009. Commissioner Higgins seconded the motion.

Vote on Motion

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Motion passed 5 to 0

FINANCIAL

Martin Waits, Chief Financial Officer presented the preliminary FY 2010 Wastewater Service Operations budget with a four year projection through FY 2013. (See Exhibit “A”)

VACUUM STATIONS & EARLY CONNECTIONS
Pat Mitchell gave a presentation on how a vacuum system works (See Exhibit “B”). He also reviewed the “how to do a tie in package” that is given to the homeowner with the Board Members. Mr. Mitchell explained that Vacuum Station “D” will have its start up in a few days. He is planning on sending out volunteer notices to connect to the properties that are serviced by Vacuum Station “D” and mandatory 30 Day Notices to the business owners on the North Business Corridor on US 1 who have already had their one year notice for more than a year.

WHITE RHINO PROPERTY
Charles Fishburn, General Manager, explained that there will be one 2.3 MGD treatment plant that will serve all of the Island of Key Largo. There will be six vacuum stations instead of the original planned thirteen vacuum stations. One will be on the Catholic Church’s property servicing Basin’s A and B. One will be on the John Pennekamp Park property servicing Basin’s C and D. One is currently at the Regional Plant site and has been running for over two years with no complaints, servicing Basin’s E and F. One will be in front of Buccaneer Point, where Commissioner Majeska lives servicing Basin’s G and H. One will be in the middle of US 1 south of the Shell Man servicing Basin’s J and K. He said that the vacuum station for Basin I will be at the White Rhino property and that the District’s Engineer had just bought a house in that neighborhood knowing that the vacuum station was going in.

Mr. Fishburn explained that the District had options on four properties for Basin I. One property was by the Bay Harbor neighborhood, one by Snapper’s, one in Key Largo Ocean Resorts, and the White Rhino Property.
Mr. Fishburn told the Board and public that the District will work with the neighborhood on the color of the vacuum station, the style of roof, types of windows and landscaping. He explained that the District is spending $100,000 on odor control devices for the vacuum stations, and that if there is an odor that the District should be contacted immediately because that means there is a problem that needs to be addressed at once.

District Counsel Thomas Dillon said that the District has already exercised an option for the White Rhino property and we have to purchase the property even if we do not put the vacuum station on it.

Commissioner Higgins expressed disappointment that the District did not keep the residence of the Bay Harbor neighborhood in the loop on the purchase of the White Rhino property for the vacuum station for Basin I.

The following persons addresses the Council about their neighborhood (Bay Harbor) and the purchase of the White Rhino Property for Vacuum Station I: Russell Yagel, David Ayala, Jason Brindle, Tom Domiano, Bob Workman, and Carl Roy. The residents expressed the following concerns: The sign notifying of the proposed sale of the property was not placed properly, the sign could not be seen from the street, the dates on the sign were wrong, proper procedure was not followed, the location is not within the circle, other property was not looked at, foul smells, and a decrease in property values. They would like the District to take no further action, rescind their action, and to re-notify the public and hold another meeting.

Mr. Fishburn explained that other properties had been considered. The White Rhino property was exactly where the vacuum station needed to be to service Basin I.

Commissioner Tobin explained that the property that Monroe County had purchased with Preservation 2000 funds cannot be sold and the District is restricted as to what percentage of trees on a property that they can cut down.

Chairwoman Hammaker said that the neighborhoods with vacuum stations in them will be the last to lose electricity and the first to regain it in an emergency.

Commissioner Brooks said that the vacuum stations are very passive and he has visited one and there was no odor. He also said that sewers increase the value of property.

Commissioner Majeska is looking at the vacuum station on the White Rhino property as a beautification project.

Ms. Nelson said that she has been coming to the meetings and that the White Rhino property has been discussed for months.

**Motion:** Commissioner Tobin made a motion to have Staff and a Commissioner meet with the Bay Harbor neighborhood (within a week) to discuss what they would like to have the vacuum station look like. Commissioner Higgins seconded the motion.
RESOLUTION

Motion: Commissioner Tobin made a motion to approve Resolution No. 27-08-09
Commissioner Majeska seconded the motion.

LETTER TO ISLAMORADA
Chairwoman Hammaker requested a reply to the letter from Islamorada asking if the KLWTD Board would consider a five on five meeting.

Commissioner Tobin would like to have an agenda, and a reason for the meeting. He would like the agenda limited to discussion on a possible inter-local agreement between Islamorada and Key Largo for the treatment of Village wastewater. Commissioner Tobin would like to have a discussion by each staff about the advantages and disadvantages of a joint treatment agreement. Then have a discussion by staff of a proposed time table to complete an inter-local agreement and then have a discussion by staff if the Engineers should meet to discuss technical issues. Then a discussion by Legal Counsel about if the Village and District Legal Counsel should meet to discuss issues related to the inter-local agreement. He would also like to have a discussion on, if each of the Financial Officers should meet to discuss the issues related to the inter-local agreement.

Commissioner Higgins does not think a meeting would be a good idea. He would not be at the meeting. He might consider it after Key Largo is completed and up and running.

Commissioner Brooks asked Commissioner Majeska how much funds he would be willing to spend on working with Islamorada.

Commissioner Majeska stated he could not give an amount.
Commissioner Brooks said that meeting with Islamorada is risking investing capital. The District would build the pipeline, and finance it and then Islamorada would pay it off. Commissioner Brooks said that Mr. Waits said the District would make money on the project.

Commissioner Brooks cannot make a decision without knowing what the cost would be. He feels that the Major problem with working with Islamorada is that they cannot make up their mind on what they are going to do.

Commissioner Majeska said that the meeting agenda should be to have the staff discuss the advantages and disadvantages of joint treatment plant, each financial person, and engineers speaking for five minutes.

Motion: Commissioner Brooks made a motion to write a letter to Islamorada telling them that the time is not prudent for a five on five meeting until Islamorada has an idea of what they are going to do, at least on the collection system, and the District has finished sewering the Island of Key Largo. Commissioner Higgins seconded the motion.

Vote on Motion

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Motion failed 2 to 3

Motion: Commissioner Majeska make a motion to send Islamorada a letter stating that the KLWTD District would like to have a meeting with the five Council Members, their financial person and engineer and the District five Board Members, financial person and engineer with the Commissioner Tobin second the motion.

Vote on Motion

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Motion passed 3 to 2.

ADJOURNMENT
The KLWTD Board adjourned the Board Meeting at 7:49 PM.
The KLDWTD meeting minutes of August 11, 2009 were approved on Oct. 13, 2009.

Chairwoman Hammaker

Carol Walker, CMC
District Clerk
MINUTES
Key Largo Wastewater Treatment District (KLWTD) Board of Transition Meeting

September 8, 2009
98880 OVERSEAS HWY, KEY LARGO, FL 33037

The Key Largo Wastewater Treatment District Board of Commissioners met for a regular meeting at 4:03 PM. Present were Commissioners Norman Higgins, Andrew Tobin, Charles Brooks, Robert Majeska, and Chairwoman Susie Hammaker. Also present the General Manager Charles F. Fishburn, Syndi Lankford, Acting District Clerk, and other appropriate District Staff.

Commissioner Higgins led the Pledge of Allegiance.

APPROVAL OF AGENDA
Commissioner Brooks pulled the minutes and added Item K (Local-Sponsor ACOE draft resolution for discussion).

Motion: Commissioner Majeska made a motion to approve the agenda as amended. Commissioner Higgins seconded the motion.

Vote on Motion

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Motion passed 5 to 0

ONE CENT SALES TAX
Monroe County Mayor George Neugent explained that Representative Ron Saunders is going to introduce a one cent sales tax. He explained that there will be three parts, the one cent tax, targeted deadlines and the $200 million Mayfield Grant (authorized but not appropriated last year). The sales tax money can only be used for wastewater, storm water, and water reuse.

Mayor Neugent asked that the KLWTD Board support having a referendum on the tax.
The KLWTD Board asked Mayor Neugent to have the County work with the District on street paving. He recommended that if the County Staff is not working with the District then the District should bring the item to the County Commission.

NEW PHONE SYSTEM
Pat Michelle gave an update of the new phone system that the District is using at the office.

EARLY CONNECTION PROGRAM
Pat Mitchell reported that Vacuum Station D will be online in thirty days. He gave a review of different options available concerning early connections.

Commissioner Tobin would like the Staff to recommend who should take over the lift stations.

Commissioner Tobin would like an update on the Transition Meetings.

ADJOURNMENT
The KLWTD Board adjourned the Board Meeting at 6:35 PM.

The KLWTD meeting minutes of Sept. 8, 2009 were approved on Oct. 13, 2009.

Chairwoman Hammaker

Carol Walker, CMC
District Clerk
Meeting Date: Oct. 13, 2009

[ ] PUBLIC HEARING

[ X ] DISCUSSION

[ ] GENERAL APPROVAL OF ITEM

[ ] Other:

SUBJECT: SCADA (Supervisory Control and Data Acquisition)

RECOMMENDED MOTION/ACTION:

Approved by General Manager
Date: 10-9-09

Originating Department: General Manager

Costs: Approximately

Funding Source:

Attachments: Information

Department Review:

[ ] District Counsel

[ X ] General Manager

[ ] Finance

[ ] Engineering

[ ] Clerk

Advertised:

Date: ____________

Paper: ____________

[X] Not Required

Summary Explanation/Background: The KLWTD will have six vacuum stations and potentially 60 lift stations to oversee and operate. SCADA Systems provide automated monitoring and control of the vacuum stations and lift stations to optimize the operation of the vacuum and lift stations.

Data Flow Systems is a Florida based supplier of SCADA Systems. They will give a presentation on the application of the automated wastewater management SCADA systems.

Resulting Board Action:

☐ Approved

☐ Tabled

☐ Disapproved

☐ Recommendation Revised
Executive Summary

Winter Park is a city in Orange County, Florida. The population was 24,090 at the 2000 census. According to the US census 2006 estimates, the city had a population of 28,083. The city is home to Rollins College and the Charles Hosmer Morse Museum of American Art, which houses the largest collection of Tiffany glass on earth. Winter Park enjoys more park space per capita than any other city in Florida.

Due to the growth of the city, the wastewater collection infrastructure's capacity is being challenged. If conventional methods were employed, such as removing and replacing various sewers with larger pipes, the city would not only face a very large financial investment, but would also experience a great upset to the quiet and reserved lifestyle enjoyed by its residents. This would result from the digging up of many of the cobblestone streets and consequent traffic problems.

In May, 2005, a meeting was held with David Zusi, the Utility Director, along with several members of his staff and representatives from Data Flow Systems, the suppliers of SCADA to the Utility Department. The question asked was, “What can our SCADA system do to streamline our collection process?”

Data Flow Systems, Inc is a twenty-seven-year-old Florida company specializing in SCADA systems for the water and wastewater industry. Winter Park started with DFS in January, 1999, and has continued to expand the system since that time.

Two techniques were discussed at that meeting. Inasmuch as these were methods that did not require any hardware or software purchases by the city, the immediate go-ahead was given by David Zusi to explore the benefits.

Nollie Parrish, the city's Lead Electrician, working with Karl Bossert, DFS' Sr. Sales Engineer, began the process of selecting the force main and doing the research to enable the algorithms that would cause the system to modify its behavior. By the time all the initial research had been completed, the period of study was designated to be from June to December, 2005, vs. the same period in 2006.

Algorithms were designed and installed on the central Hyper SCADA Server, along with a control screen that allowed selected staff to enable or disable the new rules for behavior modification.

Following the startup of the algorithms, Nollie reported that his field staff were observing an immediate reduction in pump run times. A check was made to ensure that the same amount of daily flow was being pumped by the system. Observing that this was the case, the study went on.

It became apparent that pumps were indeed running fewer hours and that power consumption had gone down. Following the completion of the study period, data began to be collected to review the success of the procedure.

As you will observe in this report, the results were spectacular!

This report covers only the Hibiscus Force Main set of stations. The complete data from the finance department has yet to be retrieved. At this date, we have observed a pump run time reduction of twenty-four (24%) percent, with an energy cost reduction of thirty-nine (39%) percent.

The method used has proven so successful that Tom Smairidis, the President and owner of Data Flow Systems, has assigned the official name of “Symphony - Harmonious Pump & Flow Management” to the process and applied for a patent on the method.
This is where we began. The map shows the relationship of most of the stations within the "Hibiscus Nest" that was selected as the force main to accomplish the study. As you can see, they are spread out geographically into very diverse areas of the city. All but four of the stations were equipped with Data Flow Systems' Telemetry Control Unit (TCU) which gave us the necessary inputs and outputs (I/O) to administer the Symphony pump and flow algorithms that developed the savings achieved.

The challenge was that, based on local conditions, many of these pumps could be running concurrently, resulting in high main pressures and poor pump performance.

Symphony solved the problem and allowed the system to work as originally designed.
The Results!!!

A

Winter Park Hibiscus Force Main
Runtime Time Comparison

34% Reduction!

B

Winter Park Hibiscus Force Main
Comparison of 2005 & 2006 (Observed)

42% Reduction!!

C

LS1 Hibiscus - Comparison of Flows
Before (Brown) and After (Blue) Stage 1 P&F Mgmt

The Charts Tell The Story

Chart A - Runtime reduction on every station.
Average amount equals THIRTY-FOUR (34%) PERCENT!!

Chart B - Energy cost reduction on almost EVERY station.
Overall average equals FORTY-TWO (42%) PERCENT!!!!

Chart C - Modification of Diurnal Curve.
Smooother inflow to plant!
Peak pumping rate reduced!
Capacity increased by 121 service connections!

The Future

Symphony - Harmonious Pump & Flow Management
has proven to be a valuable tool for the City of Winter Park, and
research continues to improve the algorithm in order to enhance the
gains made. Our patent-pending process can also be used to
reduce infiltration and inflow (I&I) in the collection system.

As we have pointed out, the initial implementation of this feature was
done manually, which was very time-consuming. In order to
streamline this process, Data Flow Systems' software engineering staff
is preparing a special interface that will streamline the overall
implementation so as to make it

available to all our customers.
It must be noted that this
algorithm depends on two
separate pieces of hardware.
First, you must be on the Hyper
SCADA Server (HSS) central
platform; and Second, all the
field units must be Telemetry
Control Units (TCU).
KEY LARGO WASTEWATER TREATMENT DISTRICT

Agenda Request Form

Meeting Date: Oct. 13 2009  Agenda Item No. G

[ ]  PUBLIC HEARING  [ ]  RESOLUTION

[X]  DISCUSSION  [ ]  BID/RFP AWARD

[ ]  GENERAL APPROVAL OF ITEM  [ ]  CONSENT AGENDA

[ ]  Other:

SUBJECT: Organizational Chart

RECOMMENDED MOTION/ACTION:

Approved by General Manager  
Date: 10-9-09

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| Date:                   |                      |                          |
| Paper:                  |                      |                          |
| [X]  Not Required       |                      |                          |

Summary Explanation/Background: As requested, during our last Committee of the Whole, Chairwoman Hammaker will present an overview power point relative to KLWTD's Temporary Transition addressing factors of cost, owned and lease locations, grouping of personnel and practical administration.

Major assumptions for the presentation include:
1. Present temporary busy construction component with added personnel
2. Construction sunset in 2010 or early 2011,
3. End of North island construction and focus on Southerly areas of island
4. Eventual elimination and/or differentiation of many personnel
5. Operations offices eventually concentrated at the expanded plant site to which the public is not allowed regular access; and
6. An increase of homeowner and commercial customer questions during high construction periods.

Information from the General Manager, Supervisors, and rental managers has been utilized. Photography by Susan Hammaker.
Power point design by her assistant Jennifer Mats.

Resulting Board Action: