

MINUTES  
Key Largo Wastewater Treatment District (KLWTD)  
Board of Commissioners Meeting



April 5, 2006  
98880 OVERSEAS HWY, KEY LARGO, FL 33037

The Key Largo Wastewater Treatment District Board of Commissioners met for a regular meeting on April 5, 2006 at 5:04 PM. Present were Chairman Glenn Patton, Commissioners Gary Bauman, Andrew Tobin, Charles Brooks, and Claude Bullock. Also present were General Manager Charles F. Fishburn, District Counsel Thomas Dillon (by phone), District Clerk Carol Walker and all other appropriate District Staff.

The Pledge of Allegiance was led by Commissioner Bauman.

**Approval of Agenda**

Charles F. Fishburn, General Manager, requested that the following item be added: SRF Resolution No. 16-04-06. Commissioner Brooks requested that two items one being the website and the other being staff and Board assignments. Chairman Patton moved item J12, Ed Castle's power point presentation, to the front of the agenda.

Agenda approved by consensus.

**Public Comment:** The following persons addressed the Commission; None.

**Presentation**

*Facilities Report Phase I*

Mr. Castle explained that the purpose of the report is to identify discrete collection basins in the KLWTD service area that are not currently under design; to prepare estimated construction costs for the collection systems, evaluate different options; to provide recommendations for the most cost-effective means of providing reliable wastewater service; and to estimate the construction cost of a force main to service the Southern Component. See Exhibit "A".

Commissioner Brooks asked what safeguards would be put in place if the District were to accept influent from Islamorada. Mr. Castle explained that there would be regular samplings taken and tested. Commissioner Brooks recommended that there be a monetary fine set in place by an inter-local agreement. Commissioner Brooks then asked if new development has been taken into consideration when sizing the District's system. Mr. Castle stated that it has been.

Commissioner Brooks asked if the gravity systems in the small populated areas work with the larger development systems. Mr. Castle explained that the two systems would work with each other and that in new developments the developer has to provide a compatible system.

Chairman Patton asked if Mr. Castle's calculations have taken all of the cost into consideration. Mr. Castle explained that the totals include the construction and design costs but the force main on US 1 is a separate cost of 6.8 million.

Commissioner Bullock asked if there has been a document done that shows what the revenues are expected to be. Mr. Castle stated it had not been done because the exact calculation of EDU's is a little more convoluted (for commercial and mixed use) than taking water usage and dividing it by 167. There are different rules that are not that straightforward.

Chairman Patton explained that the final report that goes to SRF will have more details than the power point presentation and Mr. Castle agreed.

Commissioner Brooks asked Mr. Castle if he saw any additional cost. Mr. Castle answered that he did not believe so, the only unresolved issue at this point is to have the financial plan resolved on how the District is going to pay back the SRF Loan.

#### **Commissioner Items**

##### *Road Restoration*

Don Brown of 21 Lake Shore Drive read a letter in to the record. Please see Exhibit "B".

The Board directed General Manager Charles F. Fishburn to have overlay paving done on Lake Shore Drive, not to exceed \$10,000 without further Board approval.

Commissioner Bullock suggested that the District obtain a contract for Overlay service to be available at all times.

Commissioner Tobin suggested that the District work with the County on their street paving schedule.

##### *Special recognition to Representative Sorensen, BOCC Commissioners in the form of a plaque or certificate for their support*

After discussion among Board members it was suggested that plaques showing the objective of cleaning up the environment be presented.

##### *Dedication Plaque for the Treatment Plant*

The Board directed staff to contact the Mason's concerning setting a cornerstone at the plant.

##### *Replacement of one regular monthly meeting with a Manager's workshop*

Commissioner Bauman suggested that there be a workshop instead of a meeting once a quarter but only after the regular meetings are shortened by making things crisper and not repeating things that have already been said.

### *Website*

Commissioner Brooks explained the problems concerning the search process on the District's website.

Commissioner Bullock asked if it was possible to know how many times the web page is accessed.

Chairman Patton stated that he could do a report and bring it to the next meeting. Chairman Patton reported that he had put the search engine on the website about a month ago and he also put a program on to translate it (Babble Fish). The search engine does not work well with the format that the agenda is in when it is placed on the website. No search engine will work with the PDF format used by the District. Chairman Patton feels that enhancing the data base functions from the Staff Engineer is important.

The Board requested that Cynfyn Solutions, Inc. give a presentation at the next meeting.

### *Staff and Board Assignments*

Commissioner Brooks stated that he had tried to have the Rules and Regulations completed in June of 2005 while he was Chairman. Chairman Patton had accepted the assignment of doing the Rules and Regulations but there has been no activity for a few months on the assignment. In June of 2005 Commissioner Brooks directed General Manager Charles F. Fishburn, Chairman Patton, District Counsel Thomas Dillon and Ed Castle as a committee to put together a complete package on the Rules and Regulations as one piece that could be reviewed by the Board for comments to finish the project. As of now, when the District is getting ready to hook up residents the District has no Rules and Regulations in place. When the District first started out that was a major requirement. The Board finally came up with the non rule. Commissioner Brooks stated the a few weeks ago District Counsel Thomas Dillon indicated that the District has no Rules or Regulations. It is one of the Board's major responsibilities and it has not been completed.

Chairman Patton said that he understands that the District adopted a working draft of the Rules and Regulations the District has been working under them. The Board has taken action last month (rate resolution) that will affect the Rules and Regulations. Mr. Dillon has to take out all of the references referring to rates in the Rules and Regulations.

District Counsel Thomas Dillon stated that Chairman Patton was correct and he has been working on a number of other priorities. The meat of the Rules and Regulations with the customers is the rates and the assessments which is what have been his priorities. His plan is to now put together the draft assessment resolution of the current year and then do the clean up of the Rules and Regulation.

Chairman Patton stated that there has been work done on the draft of the Rules and Regulation as late as February. All of the Commissioners and Staff are able to submit changes to the Rules and Regulations for the Board to consider.

Commissioner Brooks asked Mr. Dillon if he stated in the last two months if there is not a document that can be passed out as the existing Rules and Regulations.

District Counsel Thomas Dillon stated that there is a working draft of the Rules and Regulations that has never been formally adopted.

Commissioner Tobin said that the Board did adopt the FKAA Rules and Regulations as a non rule "rule". The District is not obligated because the District not an agency under Chapter 120 but a Special District, to adopt a formal rule as defined in Chapter 120 but the District does have policies that are set forth in the FKAA rule book and that is the District's policies for dealing with customers and it is being revised by the District now.

Chairman Patton said that it is his understanding that the Board rescinded the FKAA Rules and Regulations and adopted the draft rules and regulations.

Commissioner Brooks would like to see management put the Rules and Regulations together and have District Counsel Thomas Dillon review it for legality and present it to the Board for review at the next meeting.

**Bulk Items**

*Minutes of March 15, 2006*

**Motion: Commissioner Brooks made a motion to approve the Bulk Items. Commissioner Bauman seconded the motion.**

**Vote on Motion**

<b>Member</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>
<b>Commissioner Bauman</b>	<b>X</b>		
<b>Commissioner Brooks</b>	<b>X</b>		
<b>Commissioner Bullock</b>	<b>X</b>		
<b>Commissioner Tobin</b>	<b>X</b>		
<b>Chairman Patton</b>	<b>X</b>		

**Motion passed 5 to 0**

**Financial Officer's Report**

*RESOLUTION NO. 13-03-06*

*A RESOLUTION OF THE BOARD OF COMMISSIONERS FOR THE KEY LARGO WASTEWATER TREATMENT DISTRICT AMENDING THE DISTRICT OPERATING BUDGET FOR THE FISCAL YEAR ENDING SEPTEMBER 2006; AND PROVIDING FOR APPLICABILITY AND AN EFFECTIVE DATE.*

Mr. Waits told the Board that the reason he was presenting the Budget Amendment was because the Budget Resolution requires the Financial Officer to present the Board a resolution revising the Budget if there is going to be a short fall in revenues. It is not mandatory to amend to Budget unless the expenditures are going to be exceeded in either of the two major categories which they are not. From a fiduciary stand point Mr. Waits

would like to the amendment approved but there is no requirement for the Board to approve it.

**Motion: Commissioner Brooks made a motion to approve Resolution No. 13-03-06. Commissioner Bullock seconded the motion.**

**Vote on Motion**

Member	Yes	No	Other
Commissioner Bauman		X	
Commissioner Brooks	X		
Commissioner Bullock	X		
Commissioner Tobin	X		
Chairman Patton	X		

**Motion passed 4 to 1**

*Pending Payments List*

Martin Waits, Finance Officer presented the pending payments list.

Commissioner Bauman would like to see the old and new budget presented at the budget workshop for the next year.

The Board by consensus requested that Staff work with the County to amend the Inter-local to advance the District \$5 million instead of \$1 million. Commissioner Brooks would like to see an informal approach made first and Mr. Dillon said that he would be going to Key West next week and he would talk to them informally first.

**Motion: Commissioner Brooks made a motion to approve the Pending Payments List of April 5, 2006 contingent upon the availability of funds. Commissioner Tobin seconded the motion.**

**Vote on Motion**

Member	Yes	No	Other
Commissioner Bauman	X		
Commissioner Brooks	X		
Commissioner Bullock	X		
Commissioner Tobin	X		
Chairman Patton	X		

**Motion passed 5 to 0**

*FY 2007 Assessment Workbook Non-Residential, Mixed-Use & Commercial Accommodation*

Mr. Waits explained that the two categories, mixed use and commercial accommodations are not real categories that have been defined by the current assessment resolution. They are in anticipation of the next assessment resolution actually having them in the resolution. The name of the workbook will be changed to 2006, which reflects the year of adoption of the assessment to be collected in FY 2007.

Commissioner Brooks complimented Mr. Waits and Ms. Trakul on the work that they did putting the workbook together. The Board agreed with Commissioner Brooks.

*Army Corp. Status*

Mr. Waits presented the report.

Commissioner Bullock would like to see on paper, a plan that shows all of the Island of Key Largo sewered by 2010. It should be presented that this is all of the work but this is where the money stops so the work will stop.

*RESOLUTION NUMBER 16-04-06*

*A RESOLUTION OF THE KEY LARGO WASTEWATER TREATMENT DISTRICT AUTHORIZING DECLARATIONS OF OFFICIAL INTENT UNDER U.S. TREASURY REGULATIONS WITH RESPECT TO REIMBURSEMENTS FROM NOTE AND BOND PROCEEDS OF TEMPORARY ADVANCES MADE FOR PAYMENTS PRIOR TO ISSUANCE; AND RELATED MATTERS AND PROVIDING FOR APPLICABILITY AND AN EFFECTIVE DATE.*

**Motion: Commissioner Tobin made a motion to approve the Resolution No. 16-04-06. Commissioner Bauman seconded the motion.**

**Vote on Motion**

<b>Member</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>
<b>Commissioner Bauman</b>	<b>X</b>		
<b>Commissioner Brooks</b>	<b>X</b>		
<b>Commissioner Bullock</b>	<b>X</b>		
<b>Commissioner Tobin</b>	<b>X</b>		
<b>Chairman Patton</b>	<b>X</b>		

**Motion passed 5 to 0**

**Legal Report**

*Key Kritters Appeal – Public Hearing*

District Counsel Thomas Dillon explained that he contacted Mr. Majeska and informed him that he would be out of town on April 5 and asked if he had any objections to the Public Hearing being held on April 19 and he agreed.

*RESOLUTION NUMBER NO. 15-04-06*

*A RESOLUTION OF THE KEY LARGO WASTEWATER TREATMENT DISTRICT REPEALING AND REPLACING RESOLUTION NO. 05-02-06 REGARDING MONTHLY RATES AND CHARGES FOR WASTEWATER COLLECTION, TRANSMISSION, TREATMENT, AND DISPOSAL; AND PROVIDING AN EFFECTIVE DATE.*

**Motion: Commissioner Bauman made a motion to approve Resolution No. 15-04-06 as written. Commissioner Tobin seconded the motion.**

**Vote on Motion**

<b>Member</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>
<b>Commissioner Bauman</b>	<b>X</b>		
<b>Commissioner Brooks</b>	<b>X</b>		
<b>Commissioner Bullock</b>	<b>X</b>		
<b>Commissioner Tobin</b>	<b>X</b>		
<b>Chairman Patton</b>	<b>X</b>		

**Motion passed 5 to 0**

**Engineers Report**

*Monthly Status Report*

Mr. Castle reviewed the written report presented in the Agenda Package.

*Lateral Connection Report*

Staff Engineer, Margaret Blank presented an updated report on the amount of passed inspections.

*Selection of Consulting Biologist*

Staff Engineer, Margaret Blank presented the responses she received for a Consulting Biologist along with her recommendation.

**Motion:** **Commissioner Tobin made a motion to accept the proposal from CES, Inc. Philip Frank, PhD. Commissioner Bauman seconded the motion.**

**Vote on Motion**

<b>Member</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>
<b>Commissioner Bauman</b>	<b>X</b>		
<b>Commissioner Brooks*</b>	<b>X</b>		
<b>Commissioner Bullock</b>	<b>X</b>		
<b>Commissioner Tobin</b>	<b>X</b>		
<b>Chairman Patton</b>	<b>X</b>		

**Motion passed 5 to 0**

*Report on Bridge Crossings*

Mr. Castle reviewed his memo to the Board reporting that he has not been able to find any reports for sewer pipes being broken on bridge crossings.

**General Manager's Report**

*Lobbyist Proposal*

General Manager Charles F. Fishburn reported that the law firm of Holland & Knight provides Federal Representation in Washington D.C., to promote their clients goals before Congress and the Executive Branch. With the Districts "Master Plan" becoming more focused and defined, the District needs to actively pursue funding for projects in Washington and Tallahassee.

Commissioner Bauman stated the he will contact Representative Sorensen's office for his recommendation on the need for a Lobbyist.

Chairman Patton requested a report on how the Lobbyist would be paid.

Commissioner Tobin suggested that Holland & Knight be hired for \$5,000 to \$10,000 for the current year. The Board agreed by consensus.

Commissioner Brooks stated that he has advocated for years that the District needs a lobbyist.

The Board requested that a representative from Holland and Knight come to the next meeting and make a presentation.

*Drug Testing Policy*

Commissioner Brooks proposed that the Board establish that they are not employees and they are not subject to drug testing.

Commissioner Tobin stated that the Board is classified as elected official under the State Statutes.

Commissioner Bullock said that he was uncomfortable exempting the Commissioners from taking a drug test that they employees are being required to take.

Staff was directed to bring back the Drug Testing Policy to the next meeting.

*KLP Change Order*

It was explained that there was a calculation mistake on the backup for the approved KLP Change Order in the amount of \$14,000. The current change order corrects that mistake and the new amount is \$2,980,367.

**Motion: Commissioner Tobin made a motion to approve the KLP Change Order. Commissioner Bullock seconded the motion.**

**Vote on Motion**

<b>Member</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>
<b>Commissioner Bauman</b>			<b>Absent</b>
<b>Commissioner Brooks</b>	<b>X</b>		
<b>Commissioner Bullock</b>	<b>X</b>		
<b>Commissioner Tobin</b>	<b>X</b>		
<b>Chairman Patton</b>	<b>X</b>		

**Motion passed 4 to 0**

**Commissioner's New Items and Roundtable**

Nothing at this time.

**Adjournment**

The KLWTD Board adjourned the Board Meeting at 9:12 PM.

The KLWTD meeting minutes of April 5, 2006 were approved on April 19, 2006.

A handwritten signature in blue ink that reads "Glenn Patton". The signature is written in a cursive style with a long horizontal stroke at the end.

Chairman Glenn Patton

A handwritten signature in blue ink that reads "Carol Walker". The signature is written in a cursive style.

Carol Walker, CMC  
Board Clerk



# Key Largo Wastewater Treatment District

## Phase 1 Planning

*Prepared by*

The Weiler Engineering Corporation

# KLWTD Phase 1 Planning

## Purpose:

- To identify discrete collection basins in the KLWTD service area that are not currently under design
- To prepare estimated construction costs for the collection systems, evaluating different options
- To provide recommendations for the most cost-effective means of providing reliable wastewater service
- To estimate the construction cost for a force main to serve the Southern Component

## Phase 1 Scope of Work

- Determine most appropriate technology for each basin
- Estimate construction costs for each basin
- Estimate construction cost for force main
- Provide Hot Spot ranking and construction cost matrix to help the District plan the sequence of construction

## **Future Phase 2 Scope of Work Production of Facilities Plan for SRF**

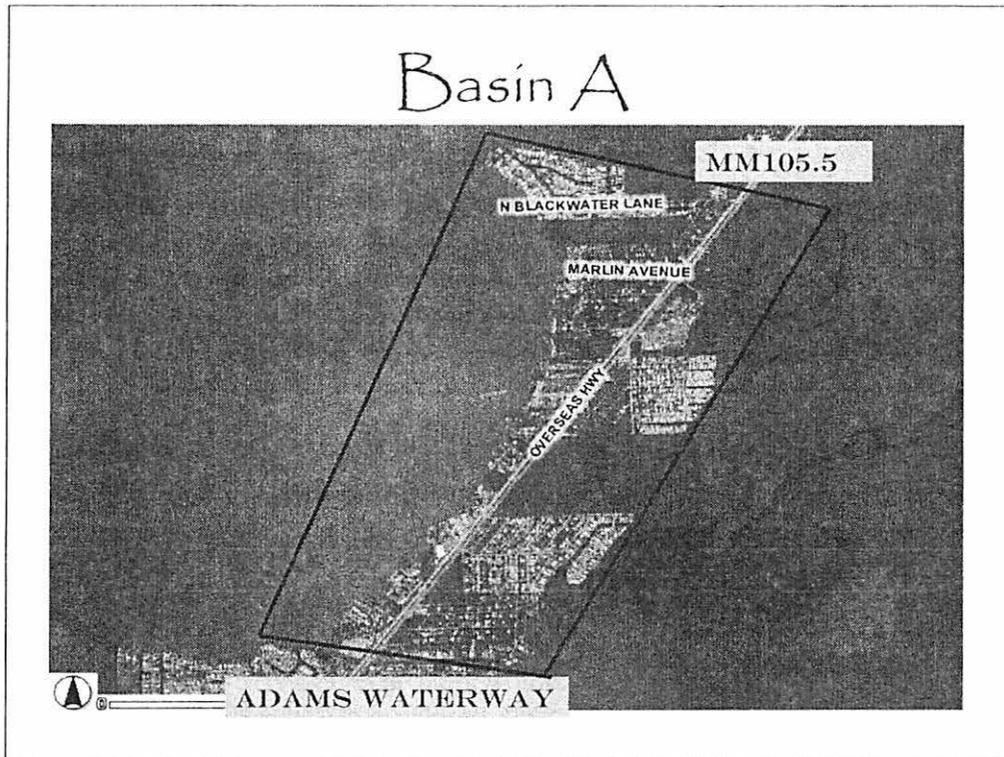
- Identify ALL basins, force mains and the WWTP in the KLWTD service area
- Compile cost estimates for all these components
- Demonstrate that alternatives have been considered and that the most cost-effective system has been chosen
- Demonstrate a need for the project and that it is in the best interest of the public
- Provide for public participation in the planning process
- Document that the District has a feasible financial plan to pay for the project and has the ability to operate and maintain the facilities



KEY LARGO  
WASTEWATER  
TREATMENT DISTRICT

COST ESTIMATE  
COMPARISONS

# Basin A



Service Basin A begins at the 105.5 Mile Marker and ends at the Adams Waterway. In this service area, there are a few FDEP permitted facilities that will connect directly to the force main. The owners of these properties will be responsible for ensuring the collections systems are in good condition and will not introduce I/I to the WWTP. The long streets in the residential areas would require a deep gravity system, therefore the installation of a vacuum system is recommended. Aerials were used to count properties that appear to be built on to determine the number of equivalent dwelling units (EDU).

# Basin A

Mile Marker 105.5 to the Adams Waterway

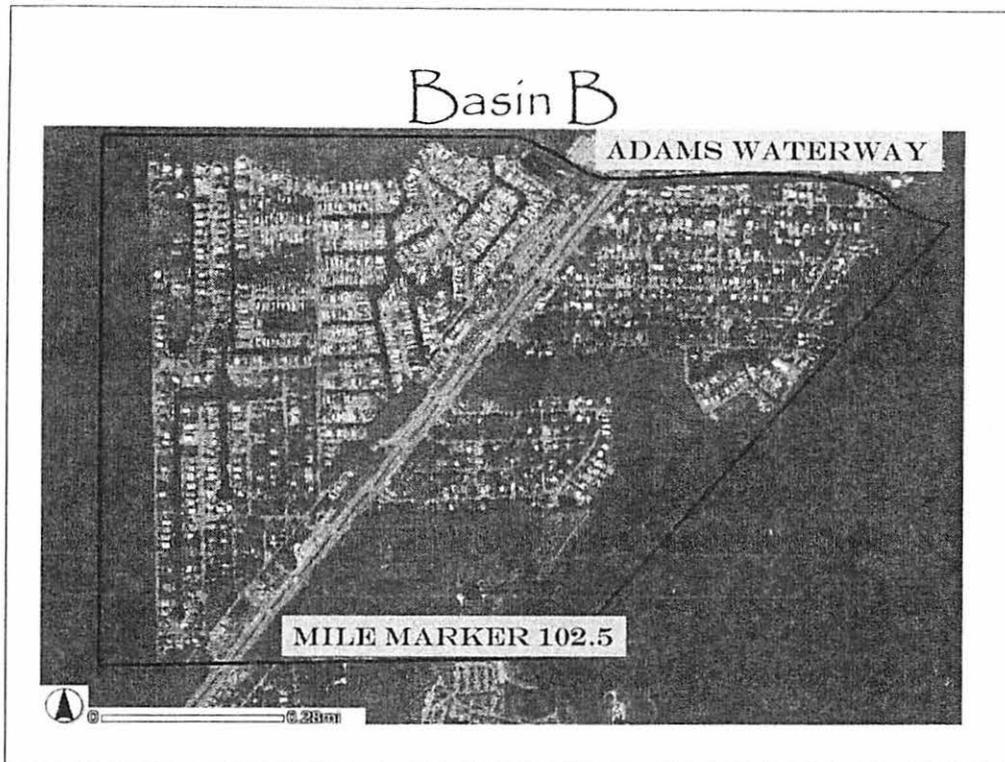
Included subdivisions are Stillwright Point, Taylor Creek Village, Paradise Point Cove, Riviera Village, Largo Sound Village, and Angler's Park for an estimated total of 1325 residential EDUs and 162 commercial EDUs

Vacuum Cost  
\$13,738,141.22

Gravity Cost  
\$16,220,652.53

Hot Spot Ranking  
District: 4  
County: 15

The cost for installing a vacuum system in this area is roughly \$10,000 per residential EDU. This does not take into consideration the fact that some of the properties counted are commercial and may have more than the single EDU assigned and the does not include the larger commercial properties are pumping directly into the force main. This basin is ranked five on the District's list of 9 hot spots.



From the Adams waterway to the 102.5 mile marker is Basin B. Here, there are also large areas of residential developments with long streets that would require very deep gravity lines. There are three FDEP permitted systems in this area, two of which are on US 1. The third, Koblick Marine, at the ocean end of Transylvania Ave. should be able to connect to the vacuum system by a buffer tank.

## Basin B

From Adams Waterway to Mile Marker 102.5~oceanside  
and bayside

Included subdivisions are Bermuda Shores, Cross Key  
Waterway, Largo Sound Park, Angler's Park Shores,  
South Creek Village, and Twin Lakes for an estimated  
total of 763 residential EDUs and 99 commercial EDUs

Vacuum Cost  
\$10,079,338.71

Gravity Cost  
\$14,170,138.14

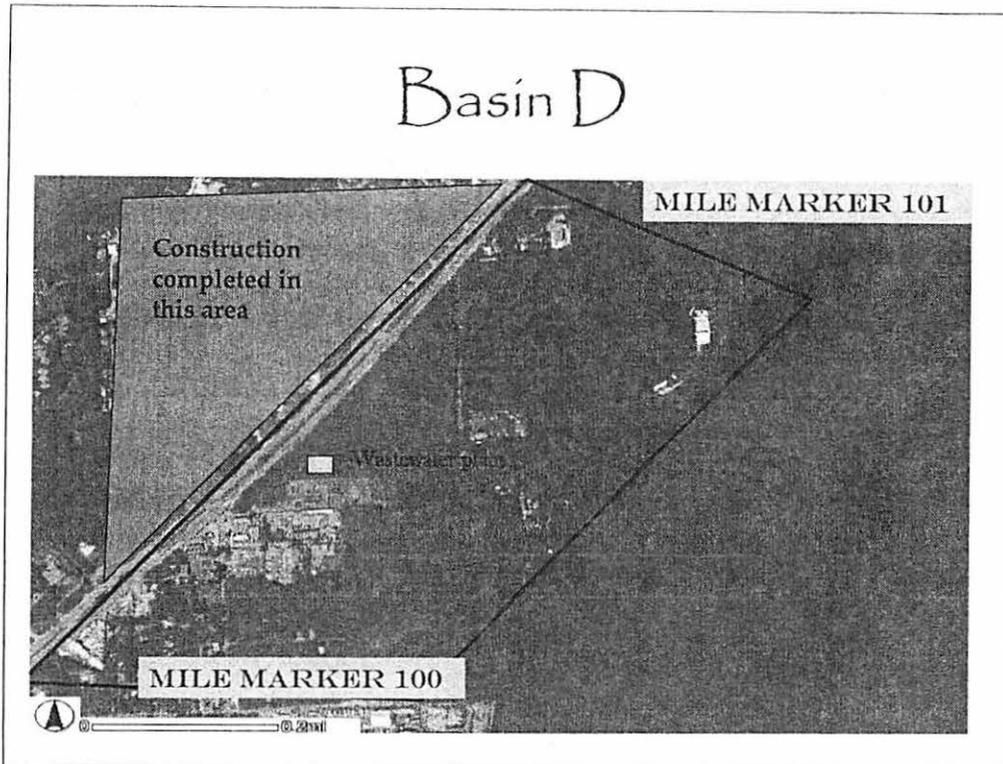
### Hot Spot Ranking

District: 9  
County: 29

Using the same method of determining an EDU count, the total cost for this basin  
of \$10,079,339.

Basin C is being designed by others and is therefore not included in this presentation.

# Basin D



Construction on most of the developed properties of Basin D is complete. For the rest of the areas in this basin, a gravity system is recommended due to the sparse population.

Newport Village has an FDEP permitted system and will tie into the force main. The mosquito control office and church will connect into the line along US 1. The gun club and few residences in that area will connect to a gravity line.

The existing vacuum station at the WWTP has adequate capacity for Calusa Campground to tie in. They will be connected through the existing Key Largo Park vacuum system.

It may be feasible for some of the other areas in close proximity to the west to also connect to the existing vacuum station if that station is upgraded by installing additional vacuum pumps and sewage pumps.

# Basin D

From Mile Marker 101 to Mile Marker 100

Oceanside only

Includes the areas on the ocean side of US 1 adjacent to the WWTP and along US 1 for an estimated total of 119 Residential EDUs and 212 commercial EDUs

Vacuum Cost  
\$4,551,042.12

Gravity Cost  
\$3,474,911.61

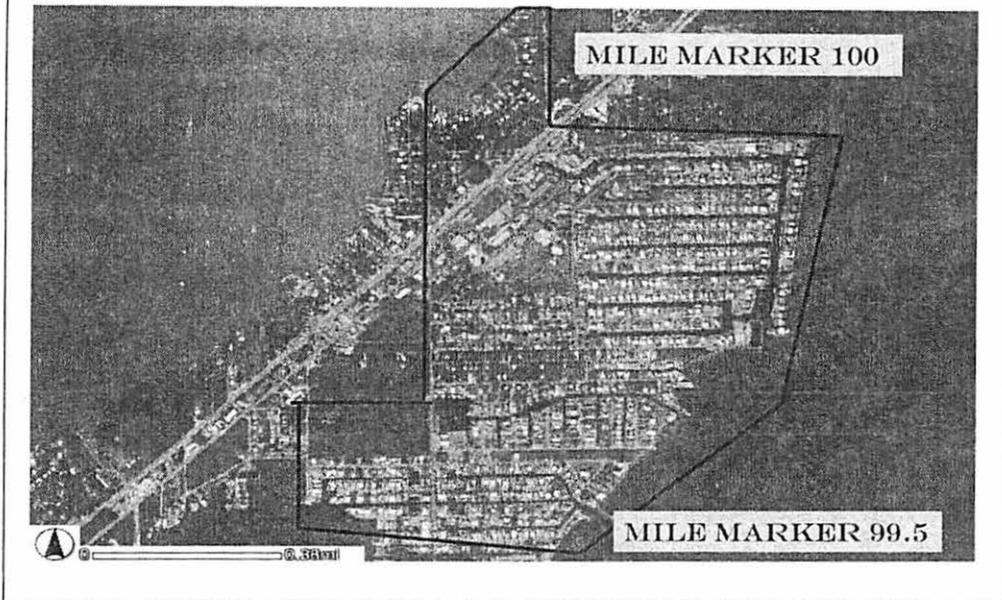
Hot Spot Ranking

District: 1

County: 4

This Basin is ranked number one on the District's list of hotspots. There are so few connections that will share the cost of connecting to either type of system, which will result in elevated costs unless other connection options are provided.

# Basin E



While only 1.5 miles along US1, this is one of the larger residential and commercial basins, and contains 9 FDEP permitted package plants.

Part of the cost of the vacuum system is the force main that will be needed to connect Kawama Yacht Club, located at the ocean end of Ocean Bay Drive, to the treatment plant. The other DEP permitted systems that are not convenient to or located along US 1 can connect to the vacuum system by a buffer tank.

Port Largo is a private development that will have to install an internal collection system that will be able to connect to the vacuum line stub-out at the end of Ocean Drive.

## Basin E

From Mile Marker 100 to Mile Marker 97

Included subdivisions are Buttonwood Shores, Holiday Homesites, Port Largo and Key Largo Beach for an estimated total of 1210 residential EDUs and 848 commercial EDUs

Vacuum Cost  
\$12,154,149.86

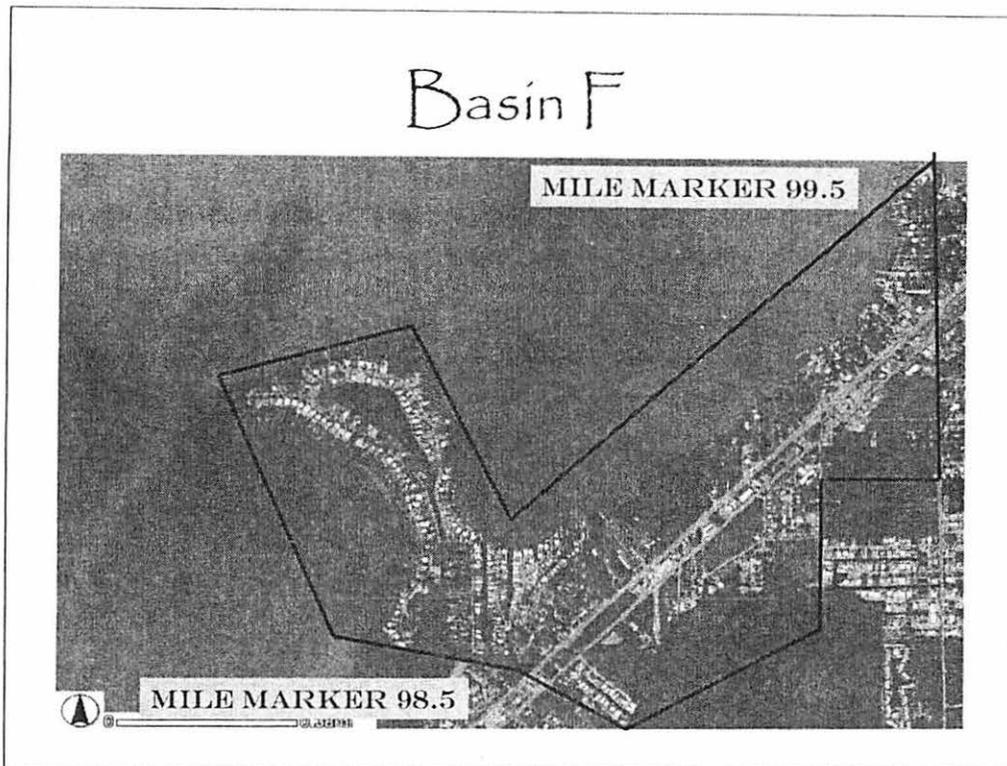
Gravity Cost  
\$13,118,938.76

Hot Spot Ranking

District: 6  
County: 19

The District ranks this basin as 7 of 9.

# Basin F



Basin F includes many businesses along and in the median strip of the highway. The majority of the residences are in Pirate's Cove and on the bayside along US 1.

There are some FDEP permitted facilities in this area that will connect directly to the force main.

## Basin F

Mile Marker 99.5 to 98.5, oceanside and bayside

Includes Pirate's Cove, Point Pleasant, Lazy Lagoon, Thompson's Subdivision, Sunset Cove, Marion Park, Harbor Shores, and Key Largo Ocean Shores for an estimated total of 461 residential EDUs and 1,248 commercial EDUs

Vacuum Cost

\$7,445,258.13

Gravity Cost

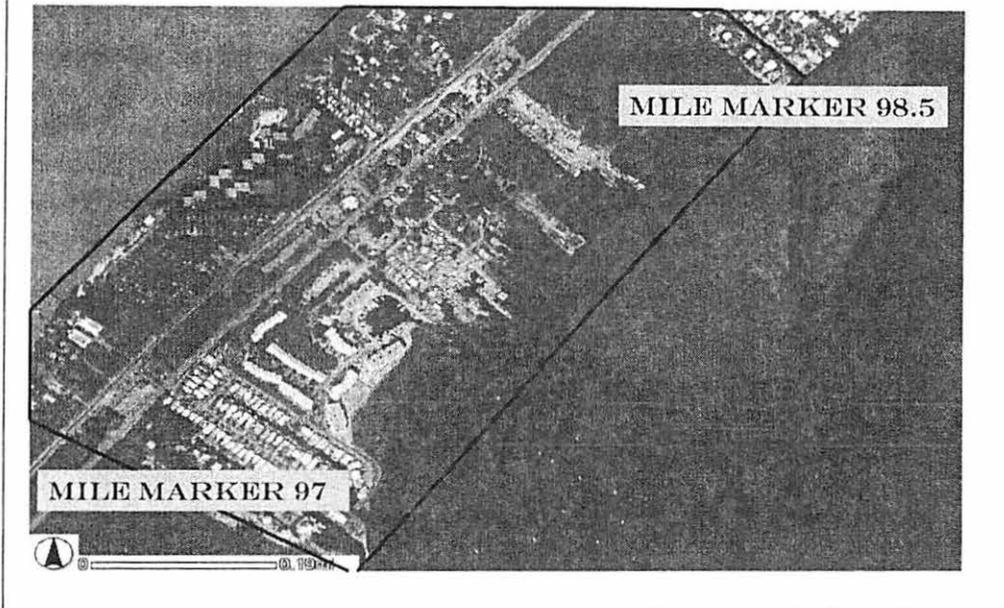
\$8,637,860.82

Hot Spot Ranking

District: 8

County: 27

# Basin G



This mile and a half stretch of US 1 contains four DEP permitted facilities that will connect to the force main. The rest of the basin will consist of gravity lines in the residential areas.

## Basin G

Mile Marker 98.5 to Mile Marker 97, oceanside and bayside  
Included subdivisions are Mandalay, Rock Harbor Estates  
and the Harborage for an estimated total of 145  
residential EDUs and 495 commercial EDUs

Vacuum Cost

\$6,549,212.24

Gravity Cost

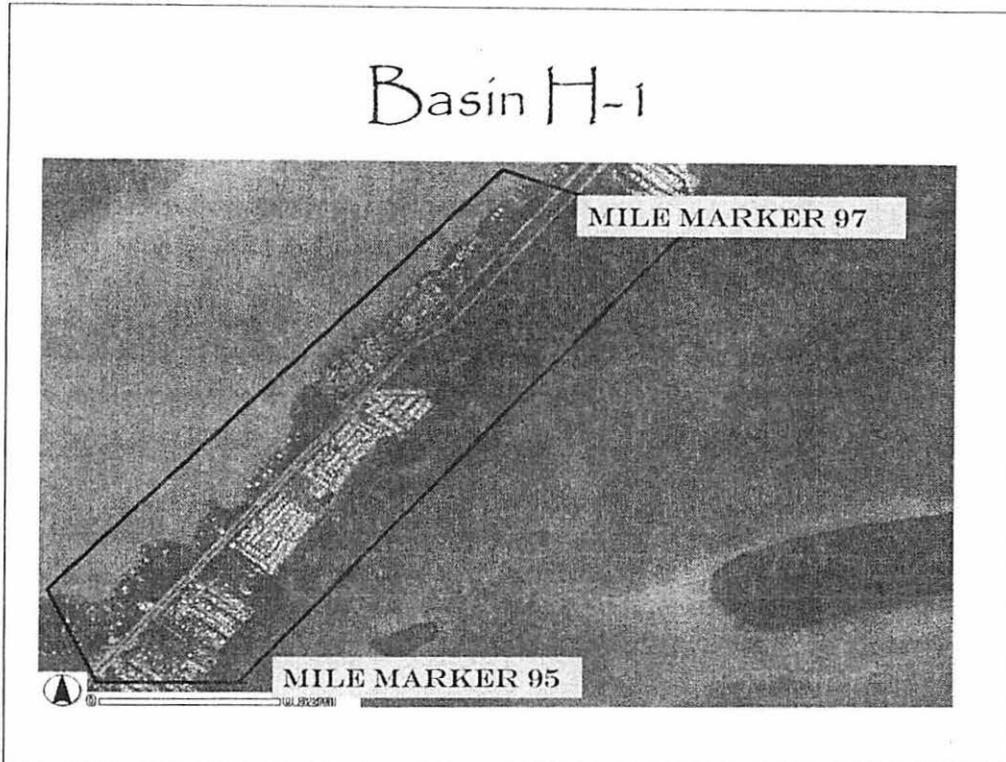
\$5,545,179.02

Hot Spot Ranking

District: 7

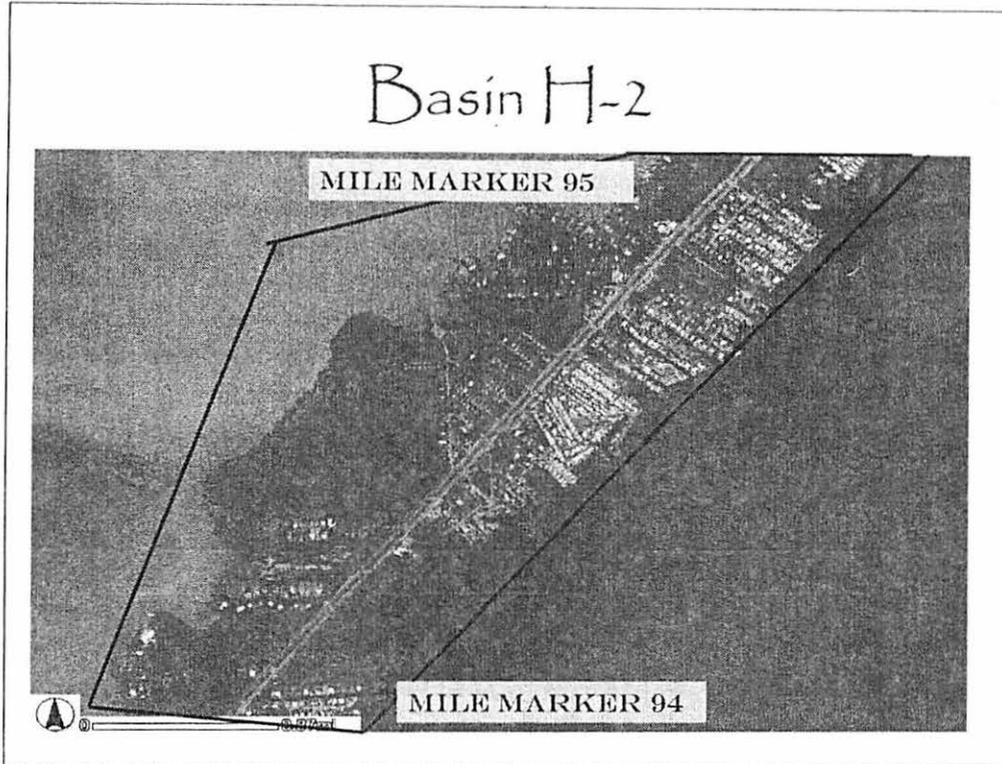
County: 20

# Basin H-1



Basin H has been divided into two smaller areas for better viewing. Basin H-1 includes the Westin, Buttonwood Bay, and Silver Shores; all of which have DEP permitted facilities. Wynken, Blynken and Nod and some properties on the bay side need to connect by gravity.

# Basin H-2



The DEP permitted facilities in Basin H-2 are Key Largo Ocean Resorts, Sunset Hammock, Coral Sands and Paradise Point Mobile Home park. The rest of the basin will connect by a gravity system.

## Basins H-1 & H-2

Mile marker 97 to Mile Marker 94

Included subdivisions are Wynken, Blynken & Nod, Silver Shores, Sunset Point, Lime Grove Estates, Sunrise Point, Seaside, Adobe Casa Court, Seven Acres, Dove Creek Estates and Richard Park for an estimated total of 577 residential EDUs and 467 commercial EDUs

Vacuum Cost  
\$15,015,314.67

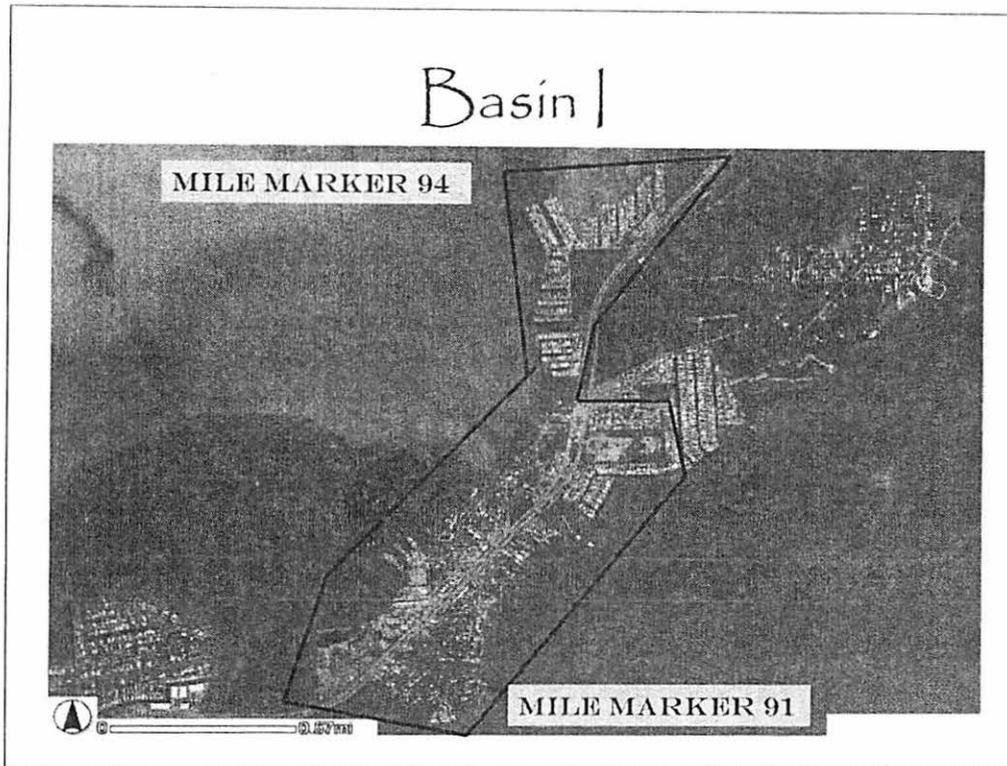
Gravity Cost  
\$14,377,429.73

### Hot Spot Ranking

District: 5  
County: 17

This is a long, narrow area along US 1. Although this is a relatively large area, gravity turned out to be more cost effective. This occurred since the vacuum system would require a large-diameter main running along US 1. With the gravity alternative, the single force main acts as the conduit, eliminating the need for a parallel main line. Value engineering during design development may allow for this estimated construction cost to be reduced significantly.

# Basin I



This basin is shared by many residential and commercial properties. There are a number of FDEP permitted facilities in this area, some of which may connect directly to the force main. Those not adjacent to US 1 may connect by a buffer tank.

# Basin I

Mile Marker 94 to Mile Marker 92.5, Oceanside only  
Included subdivisions are Blue Water, Burton's Yacht Basin  
Harris Ocean Park, Palma Sola, and Ocean Park Village  
for an estimated total of 327 residential EDUs and 157  
commercial EDUs

Vacuum Cost  
\$9,560,534.81

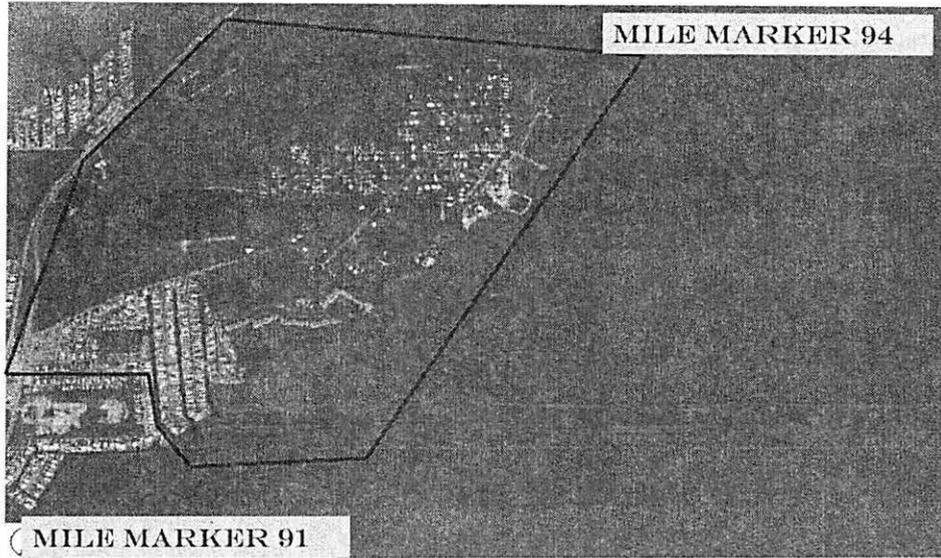
Gravity Cost  
\$10,483,763.88

## Hot Spot Ranking

District: 2

County: 9

# Basin J



Basin J is the area on the ocean side of US 1 behind the concrete batch plant.

## Basin J

From Mile Marker 93 to Tavernier Creek Bayside

Included is the Old Tavernier area, areas along US 1, Tavernier Beach, Sunny Haven, Tavernier Heights, Tavernier Cove, Tavernier Ocean Shores, Sherrill Park, Hammer Point, Tavernier Harbor and Tavernier Park for an estimated total of 610 residential EDUs and 285 commercial EDUs

Vacuum Cost  
\$11,340,620.95

Gravity Cost  
\$13,321,686.60

### Hot Spot Ranking

District: 3

County: 12

## Gravity vs. Vacuum

Basin	Gravity Total	Vacuum Total
A	\$16,220,652.53	\$13,738,141.22
B	\$14,170,138.14	\$10,079,338.71
D	\$3,474,911.61	\$4,551,042.12
E	\$13,118,938.76	\$12,154,149.86
F	\$8,637,860.82	\$7,445,258.13
G	\$5,545,179.02	\$6,549,212.24
H	\$14,377,429.73	\$15,015,314.67
I	\$10,483,763.88	\$9,560,534.81
J	\$13,321,686.60	\$11,340,620.95
<b>Total</b>	<b>\$99,350,561.08</b>	<b>\$90,433,612.70</b>

<u>Basin</u>	<u>District Ranking</u>	<u>Gravity Cost</u>	<u>Vacuum Cost</u>
D	1	\$3,474,911.61	\$4,551,042.12
I	2	\$10,483,763.88	\$9,560,534.81
J	3	\$13,321,686.60	\$11,340,620.95
A	4	\$16,220,652.53	\$13,738,141.22
H	5	\$14,377,429.73	\$15,015,314.674
E	6	\$13,118,938.76	\$12,154,149.86
G	7	\$5,545,179.02	\$6,549,212.24
F	8	\$8,637,860.82	\$7,445,258.13
B	9	\$14,170,138.14	\$10,079,338.71

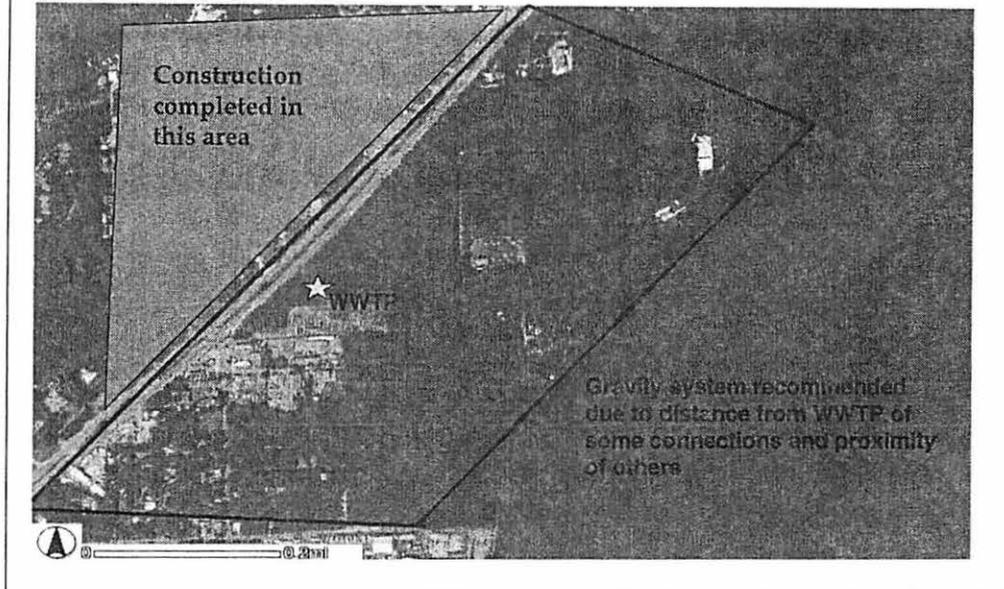
## Recommended System.

Basin	District Ranking	Gravity or Vacuum	Cost For System	EDU
D	1	Gravity	\$3,474,911.61	331
I	2	Vacuum	\$9,560,534.81	484
J	3	Vacuum	\$11,340,620.95	895
A	4	Vacuum	\$13,738,141.22	1487
H	5	Gravity	\$14,377,429.73	1044
E	6	Vacuum	\$12,154,149.86	2058
G	7	Gravity	\$5,545,179.02	640
F	8	Vacuum	\$7,445,258.13	1709
B	9	Vacuum	\$10,079,338.71	862

EDU counts are estimated from rooftop counts and reported wastewater flows from FDEP. For FDEP flows, it was assumed that wastewater flows represent 85% of the potable water consumption. Commercial EDUs were then estimated from the estimated potable consumptive flows.

Commercial EDU counts as calculated from potable water flows will be higher. However, many large users may elect to install irrigation meters to reduce their calculated EDUs. WEC feels that the EDU counts estimated from wastewater flows more accurately reflect the actual EDUs that will be assessed.

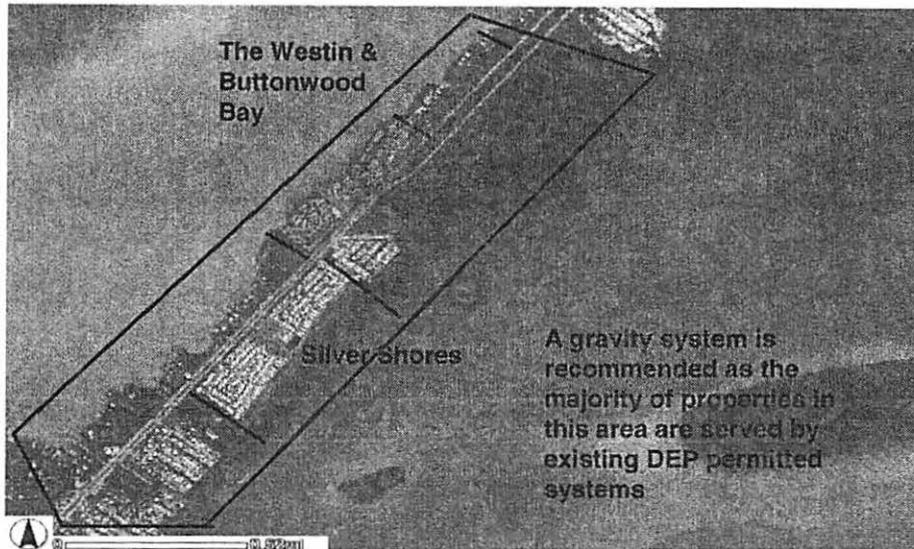
# Basin D



Although the unit costs for piping in a vacuum system are generally lower than the unit costs for gravity piping, the higher cost of the vacuum pump station can make gravity more cost-effective for small service areas or areas that are less densely developed.

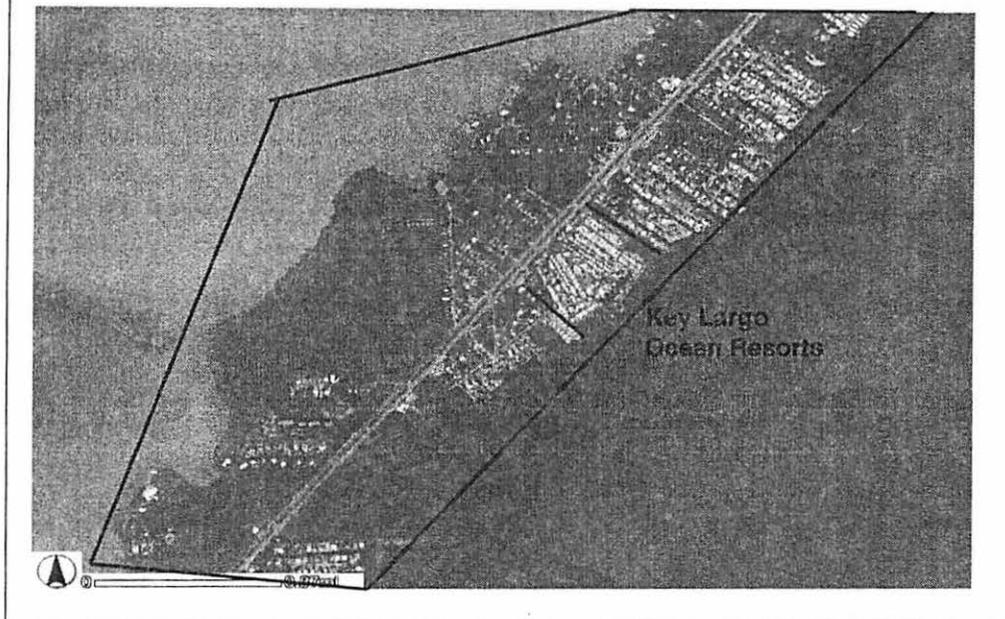
The next slides represent the areas where gravity is the recommended type of system. The reasons that this selection was made are discussed for each.

# Basin H-1



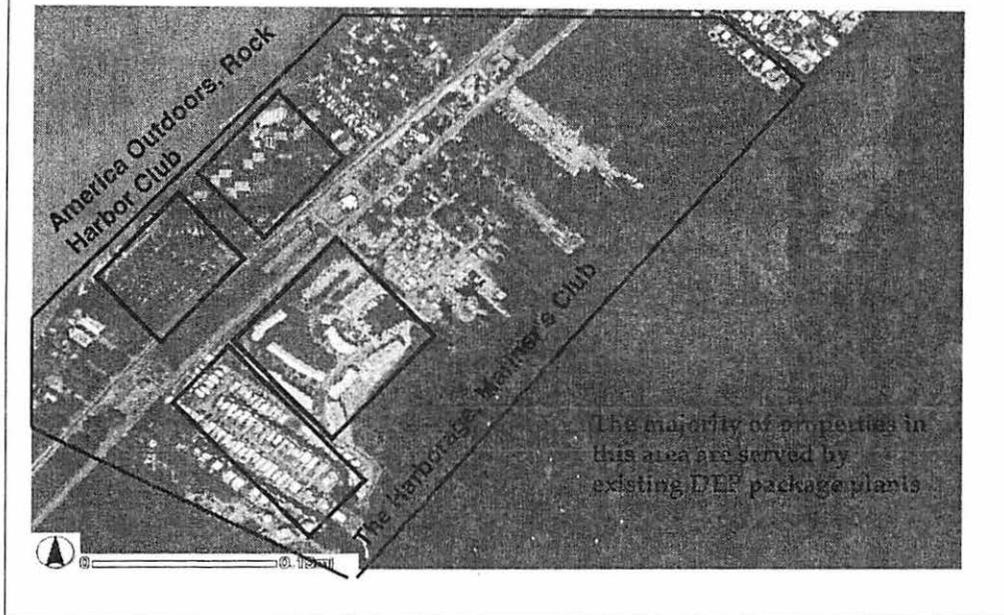
The existing FDEP permitted systems will connect to the force main. Many of the balance of properties are along US 1 and those owners will need to assume the responsibility for making the connection to the line as it passes their property if their flow is greater than 1000 GPD. Properties with flows of less than 1000 GPD will be provided with a gravity point of connection. There is only a very small area to the west of Silver Shores that will need to have a true gravity system installed.

## Basin H-2



This end of the basin is sparsely populated, as is the rest of the basin. Gravity is the recommended system, as many of the connections are from FDEP permitted facilities

# Basin G



This basin contains very few connections other than from FDEP permitted facilities, therefore a gravity system is recommended. Additionally, the connections are close to the highway which should provide simple connections.

## Southern Component Force Main

Engineer's Cost Estimate:	\$6,236,563
Permitting, Design & Survey:	\$561,290.63
Estimated Total Cost:	\$6,797,854
Estimated Commercial EDU to Tie In:	4566 (based on water data)
4566 EDUs @ \$2700 per EDU:	\$12,328,200

The Southern Component force main runs from the treatment plant site at mile marker 100.5 south on US 1 to Tavernier Creek.

There are many commercial accounts that currently have FDEP-permitted package plants. Based on current water use records, these properties represent 4566 EDUS. The EDU count estimated from wastewater flows is 3711. WEC feels that this will prove to be a more accurate number after deductions are made for irrigation and boat washdowns.

The District should consider running the entire force main when construction of the first basin in the Southern Component is begun (or earlier).

As can be seen from the estimated system development charges to be generated by these commercial connections, a significant amount of revenue will be generated when the force main is constructed.

It should also be noted that these commercial users will generate significant wastewater flows, allowing the WWTP to operate efficiently more quickly. They will also produce significant operating revenue to support WWTP operations.

	<b>QUESTIONS?</b>

# EXHIBIT "B"

April 9, 2006

To: Key Largo Waste Water District Commissioners, Supervisors, Employees and Residents of Key Largo and the Upper Keys.  
From: Don Brown, Resident Key Largo Park, 21 Lake Shore Dr, Key Largo  
Subject: Destruction of Roads, Devaluation of Homes and Reduction in Life Style in Key Largo Due To Installation Process of Sewer System

Ladies and Gentlemen;

I'm hear today to raise awareness that our roads and our life style are being destroyed in Key Largo Park (MM101 Bayside) by Key Largo Waste Water District due to Sewer installations and the current repair process of "cut and patch." We request that the commissioners and Waste Water Management immediately coordinate the "resurfacing" of all roads that have been affected due to sewer installations with any and all County, State and Federal Agencies and Programs that are in anyway responsible for maintaining these roads.

## THE PROBLEM

As one of many home owners on Lake Shore Drive in Key Largo Park we've had to endure construction traffic (end loaders, dump trucks, trenchers, water tanks, sweepers, concrete cutters, compactors, backhoes) relentlessly for the past five months. Why five months? One reason is that Lake Shore drive is the primary north/south road that connects 60 % of the streets in Key Largo Park. At the north end there were a number of lots combined that created a "dumping site" and "staging site" for construction materials and equipment. At one time they even set up a "screener" to screen materials for recycling and selling dirt/stone to recapture profits. Code enforcement had to come in and put a stop to this commercial venture but only after local residents suffered for four months.

As a result of five months of construction traffic Lake Shore Drive is fractured, carved up and gouged to the point where the road is a patchwork of construction debris both old and new. Based on discussions with construction managers and personnel working different sites, were told that monies to pave/patch the roads was never included in the original design of the sewer system and therefore the only recourse to minimize cost overrides is to "patch" the road even when common sense dictates the roads be scrapped and paved.

Patching the roads is unacceptable. Current guidelines used by the contractor indicate that when a trench is cut the sides of the trench are to be cut back 12 inches and then patched. The result is a road that looks horrible, leaves ridges that motorcycles and bicycles and skateboarders hit and have accidents on. Note: On Saturday April 1 I saw an older gentleman on a bicycle try to avoid a large red truck and hit a groove and fell down in the middle of the road. Cutting the trench and patching doesn't fix the gouges and grooves left in the roadway created by the constant pounding of backhoes busting up coral rock at the bottom of a trench. Patching doesn't fix the grooves cut by heavy equipment operating on the road while cutting trenches. Patching doesn't fix the depression areas in the asphalt caused from the outriggers and stabilizers that are extended without proper protection, or the grooves left by steel tracks of the trenchers as they trench coral rock. Additionally due to the heavy equipment being on the roads constantly and using the sides of our streets as parking lots...the edges of the roads are starting to crack and slide to the outside. I've seen so called "finished" roads. They are unacceptable. The roads must be repaved.

\_\_\_\_\_

## **SOLUTION**

Right now. Before another trench is patched. This commission must seek out other governmental agencies and programs to help pay for the repaving of our roads. Lake Shore Drive should be a top priority because it's torn up the most. The homeowners there have suffered the most and have had the most damage done to their property. Lake Shore Drive is also a popular walking trail and is enjoyed by many residents because it runs along the waters edge and is adjacent to the community park which is enjoyed by residents every single day. The fact is all roads need to be paved due to road safety issues alone. The grooves and gouges create traps for coral dust and sand. If a motorcyclist or bicyclist hits one while leaning into a turn it will go down. I speak from experience because I've raced motorcycles for almost 30 years and have over 250,000 street miles. The roads need to be paved and not patched. And finally, if for no other reason, they need to be paved because the patched roads already done look like shit (excuse the language).

<p>You cannot come into our neighborhood, tear up our roads and leave them looking like this! It's criminal.</p>
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If you can't find the money by coordinating with county road maintenance, or finding State road funds or Federal matching funds then you must, as a last recourse, have tax payers fund the paving.

To leave our neighborhood and our life style in shambles and our roads a mess is criminal and should be given the highest priority. Thank you.

From a concerned citizen who is "For" the sewers system but not how it's being executed,

Don Brown