



# Cudjoe Regional Wastewater Funding

# Background

EPA Grant for On Site Wastewater Nutrient Reduction Systems (ONWRS)

\$3+ million EPA Grant

@ \$4,500 (25% match) – 75% of sites

@ \$8,700 (40% match) – 100% of sites

Should Assessment for OSWNRS be same as Central Sewer System?

Should it remain at \$4,500 as Big Coppitt & Duck Key?

**Baypoint**  
 Cost = \$6.6 million  
 \$15,400/EDU  
 % F/S = 53%  
 Local = \$2.3 million

**Cudjoe Regional**  
 Cost = \$156.0 mil  
 \$17,700/EDU  
 EDUs = 8,800  
 assessed ????  
 % F/S = 0%  
 Local = \$5.7 million

**Big Coppitt**  
 Cost = \$36.5 mil  
 \$20,600/EDU  
 EDUs = 1,713  
 Assessed \$4,500/EDU  
 % F/S = 30%  
 County = \$18 million

**Duck/Conch Keys**  
 Cost = \$20.2 mil  
 \$12,000/EDU  
 EDUs = 1,681  
 Assessed \$4,500/EDU  
 % F/S=8% ;  
 County = \$13.5 million

**Key West**  
 Cost = \$64 mil  
 \$2,700/EDU  
 EDUs = 24,075

**Stock Island**  
 Cost = \$4.0 mil  
 \$1,500/EDU (limited)  
 EDUs = 2,750  
 Assessed \$2,700/EDU  
 Local = \$1 million

**Islamorada (est)**  
 Cost = \$132.4 mil  
 \$13,700/EDU  
 EDUs = 9,660  
 % F/S = 9% ;  
 local < \$1million

**Ocean Reef**  
 Cost = \$19.1 mil  
 \$10,600/EDU (18,000\*)  
 EDUs = 1,800  
 % F/S = 5%

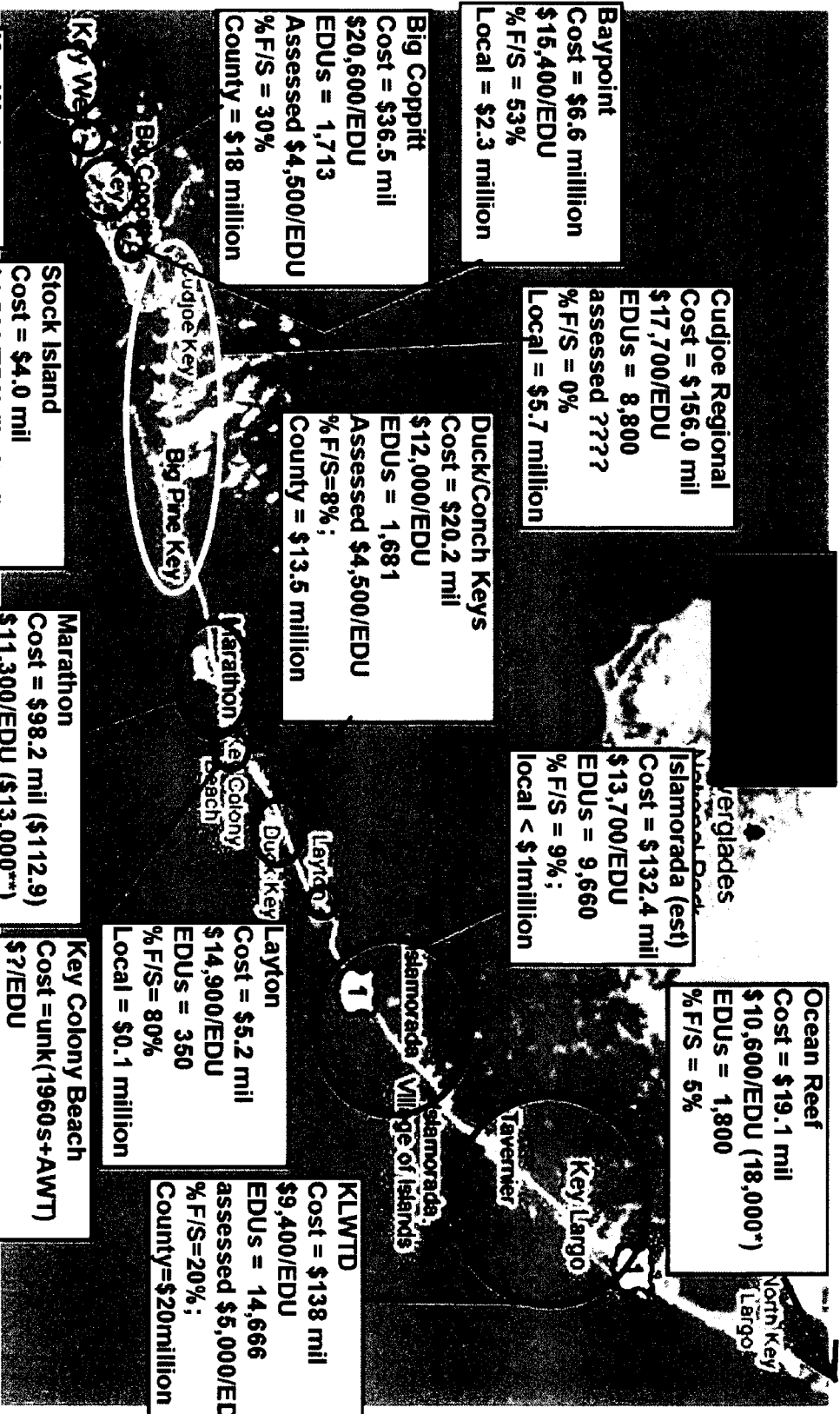
**Layton**  
 Cost = \$5.2 mil  
 \$14,900/EDU  
 EDUs = 350  
 % F/S= 80%  
 Local = \$0.1 million

**KLWTD**  
 Cost = \$138 mil  
 \$9,400/EDU  
 EDUs = 14,666  
 assessed \$5,000/EDU  
 % F/S=20% ;  
 County=\$20million

**Marathon**  
 Cost = \$98.2 mil (\$112.9)  
 \$11,300/EDU (\$13,000\*\*)  
 EDUs = 8,665  
 % F/S = 26%  
 Local = \$18.6 million

**Key Colony Beach**  
 Cost = unk (1960s+AWT)  
 \$7/EDU  
 EDUs = 1,502

**Notes:**  
 \* = Ocean Reef costs with (without) original plant investment  
 \*\* = recent Marathon cost revisions



MAY 2010 Estimate

Difference from  
May 2010 Estimate

## CONSTRUCTION COST ESTIMATES FOR THE CUDJOE REGIONAL SYSTEM WITH CURRENT COMPETITIVE MARKETPLACE

(January 2011)

CEI reduces 7% => 4%

COMPONENT	CONSTRUCTION	CEI @ 4% Cons.	TOTALS	
TRANSMISSION	\$13,953,000	\$558,120	\$14,511,120	-\$3.7 million
COLLECTION	\$17,038,961	\$1,192,727	\$18,231,688	
CENTRAL SYSTEM (Upper Sugarloaf, Cudjoe, Summerland)	\$34,500,000 \$34,500,000	\$1,380,000 \$2,415,000	\$35,880,000 \$36,915,000	-\$1.0 million
EXPANDED SYSTEM (Lower Sugarloaf, Ramrod, Torches, Big Pine)	\$78,354,000 \$87,061,000	\$3,134,160 \$6,094,270	\$81,488,160 \$93,155,270	-\$11.7 million
TREATMENT FACILITY	\$17,000,000 \$23,800,000	Eliminate injection well \$680,000	\$8,025,000 \$17,680,000	-\$8.0 million -\$7.7 million
OWNERS CONVERSIONS	\$6,160,000 \$6,160,000	\$246,400 \$924,000	\$6,406,400 \$7,084,000	-\$0.6 million
<b>TOTALS</b>	\$149,967,000 \$168,559,961	\$5,998,680 \$12,291,997	\$155,965,680 \$188,876,958	-\$32.9 million
Estimated EDUs (Total Region) (At build-out)	10000 8,768	Avg. Cost per EDU	\$15,597 \$21,542	
Estimated EDUs (Central Region) (At build-out)	3550	Avg. Cost per EDU	\$14,641	

**Where we are:**

Project Cost  
EDUs  
Full Cost/EDU

**Today**

\$156 million  
8,800  
\$17,700

**Build Out**

10,000  
\$15,600

**Where will it come from?**

Property Assessments @ \$4,500  
State (County share of bond)  
USACE (Section 902 funding)

**Today**

\$ 39.6 million  
\$ 70.0 million  
\$ 20.0 million

**Build Out**

\$129.6 million  
\$ 26.4 million

Subtotal

\$135.0 million

Shortfall

\$ 21.0 million

# State of Plans

- Design status of Cudjoe
- No construction funds
- Options for moving ahead short of full start
  - Phased construction
  - Selected interim systems
  - On-site systems for “cold spots”

# Phased Construction

Build Cudjoe Key Only -

“full” assessment for area served and everyone assessed for Treatment Plant (prorata share)

Build area expanded to all of central area -(Cudjoe, Summerland, Upper Sugarloaf); “full” assessment for areas served and everyone else assessed for Treatment plant (prorata share)

Add Ramrod to Central area construction; same basis for assessments



# Phased Construction Results

In all cases there is a shortfall of \$20-49 million with assessments in the range of \$4,500 - \$5,000

What about partial interim solutions?

- use of local package plants as interim solutions
- adds cost but make environmental progress
- examples where it makes sense

# Interim Options

Example: Venture Out Package Plant

- FKAA acquires and operates for V.O
- Using “spare” capacity include neighborhoods in the vicinity (assessment strategy)
- acquire unused package plants that could be used as interim systems (ex: initial KLWTD demo plant) (key is that they make sense as local nodes in the collection system)

# Today's Discussion Objective

- Update Commission
- Coordinate Cudjoe assessment with FKAA On-Site grant program assessment
- Get a “sense of the Commission’s will”
- Identify a plan (staff & leadership)
- Set direction for the staff resources

# As a Reminder

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# Options to make up shortfall

Extend 1% infrastructure sales tax past 2018	\$ 13.0 million/year (????Total)
Resurrect special 1% sales tax proposal	\$ 13.0 million/year (????Total)
Special assessment (or tax) across unincorporated County (parity)	\$ depends on amount
Increased assessment on Big Coppitt & Duck Key (for each \$ 500 /x 3,400EDU) Plus higher initial Cudjoe assessment (for each \$500 x 8,800)	\$ 1.7 million  \$ 4.4 million
Assess undeveloped properties Cudjoe (1,200 x \$4,500) Big Coppitt/Duck/Conch ( \$4,500 x ? EDUs)	\$ 5.4 million \$ ?.? million
Implementation of Road tolls (\$1 toll yields <u>gross receipt</u> of \$ 3.8million/yr)	\$ ?.? Million/yr
Fund some of initial capital with capital component in rates (for each \$20/month) (\$20 x 12 x 8,800)	\$ 2.1 million/yr(????Total)
“Sin” Tax (Alcohol, Tobacco)(Legal authority?) -or- others?	\$ ?.? Million

## Options without State or Federal Funds:

-Assess full cost of project as flat assessment to all

Pro – funds entire job; mollifies State & Federal regulators

Con – Most expensive for residents; penalizes this area for being last by giving no subsidy

-Do nothing and wait

Pro – cheapest, easiest

Con – ignores science; contradicts our position in FKRADS; risks USEPA/State intervention

-Phased construction with split assessments

Pro – Gets project started; proves good faith

Con – Every combination has a shortfall; no guarantee of funds to complete; May have to refund assessments if system not finished in “reasonable” time

-Partial Construction (for selected areas as “interim” systems (e.g., Venture Out or Torch Key))

Pro – Some EDUs are 2015 compliant; shows progress

Con – May approach point of diminishing returns; may never get subsidy funding; may be faced with user objections to consolidating into a truly central system; more systems decrease operating cost efficiency and risk treatment efficacy

-Delegate Funding to a Third Party (aka DBOF or Fund/Build/Leaseback)

Pro- Funds entire job; eliminates State & Federal regulatory threats; shifts funding responsibility to 3<sup>rd</sup> party; takes advantage of competitive pressure

Con – Changes fundamental direction; risks higher interest