

## **Agenda**

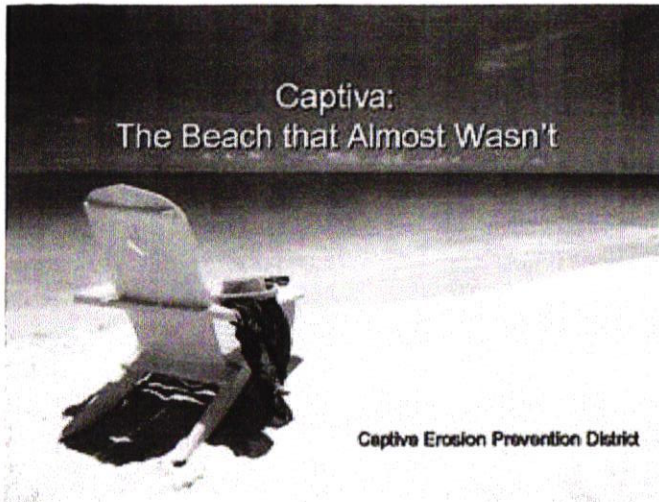
### **Special Town Hall Meeting Captiva Erosion Prevention District**

Tween Waters Inn, Wakefield Room  
15951 Captiva Drive, Captiva, Florida 33924  
March 31, 2010 @ 10 A.M. – 11:30 A.M.

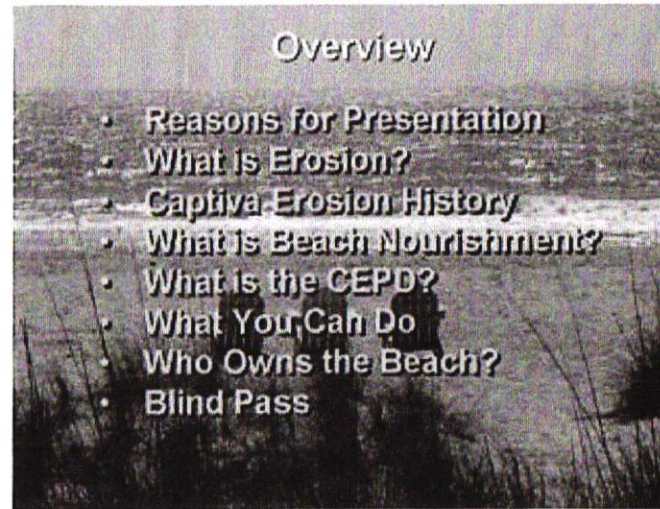
- I. Call to Order and Roll Call – Mike Mullins, CEPD Chairman  
10 A.M.
  
- II. Welcome and Introductions – Kathy Rooker  
10:02-10:05
  
- III. PowerPoint Presentation – CEPD, Steve Keehn, PE. and Robert Neal, PE.
  - Captiva: The Beach that Almost Wasn't
  - Who Owns Our Beaches?
  - What's Happening with Blind Pass10:05-11:10
  
- IV. Additional Questions and Comments  
11:10-11:30

*Special Town Hall Meeting PowerPoint  
March 31, 2010 @ 10AM*

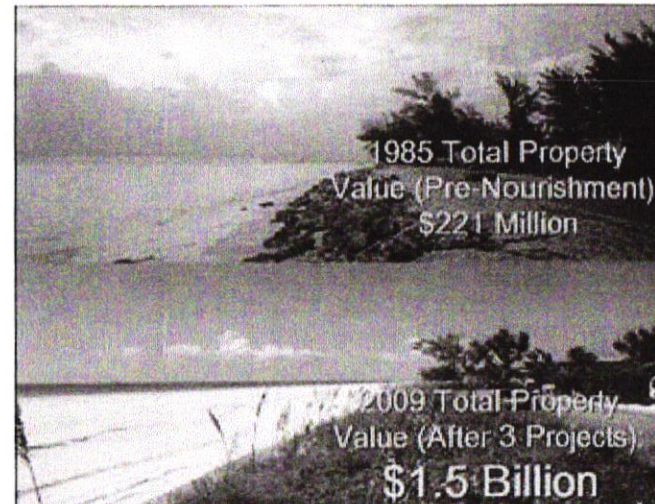
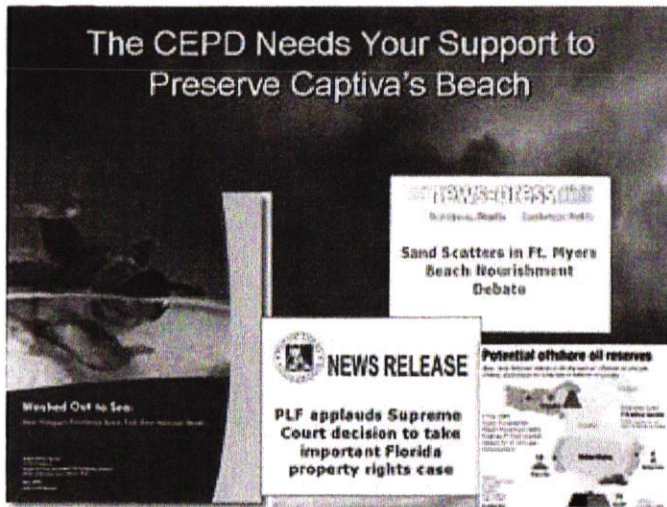
<b><u>Slides</u></b>	<b><u>Topics</u></b>	<b><u>Time</u></b>	<b><u>Presenter</u></b>
1-5	Overview Reasons for Presentation	10:05-10:10	Kathy
6-17	What is Erosion Erosion History Beach Nourishment	10:10-10:25	Steve
18-21	What is CEPD	10:25-10:35	Doris
22-31	Funding SCOTUS Please support the Preservation	10:35-10:55	Mike
32-38	Blind Pass	10:55-11:05	Robert
39-40	Blind Pass Comparison	11:05-11:10	Steve
41	Questions and Comments	11:10-11:30	



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- 3) \_\_\_\_\_

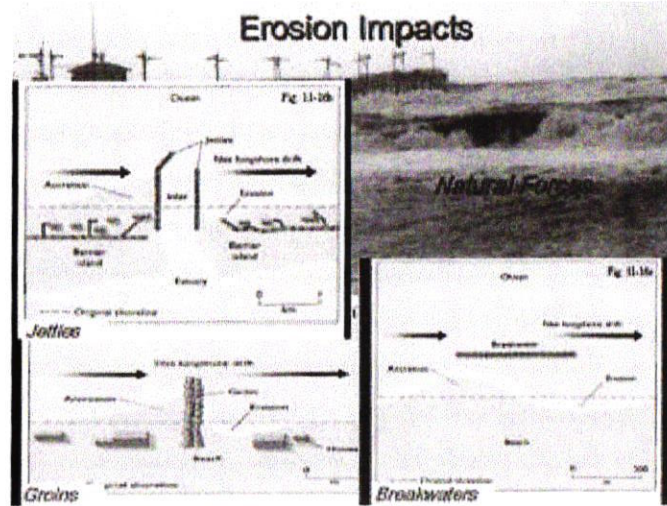


- 2) \_\_\_\_\_
- 4) \_\_\_\_\_

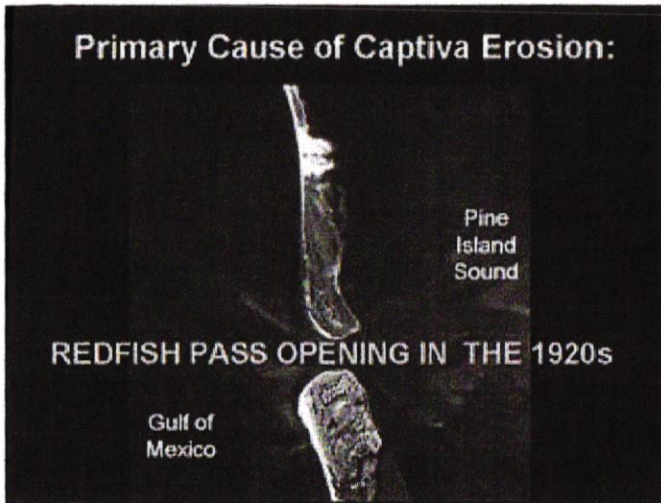




- 5) \_\_\_\_\_
- 7) \_\_\_\_\_



- 6) \_\_\_\_\_
- 8) \_\_\_\_\_



**Pre-Nourishment Projects History**

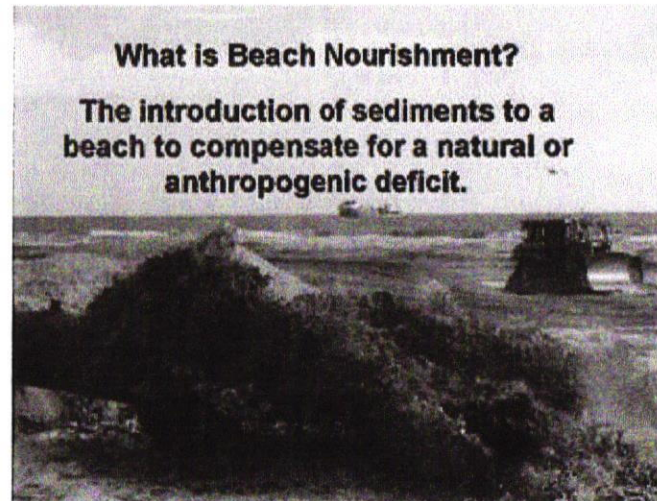
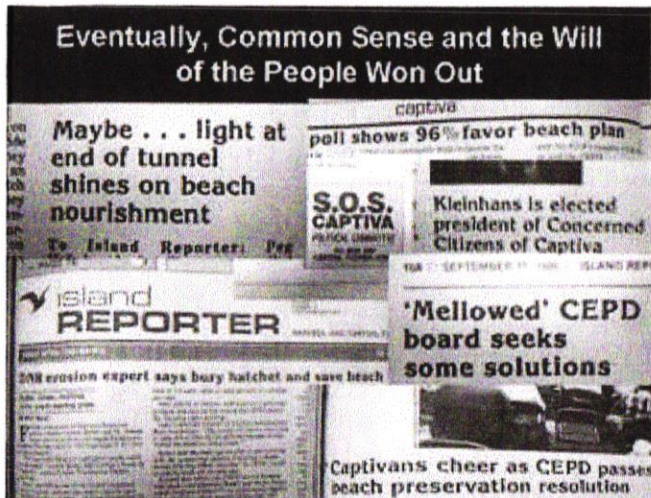
- 60s-70s Extensive Seawalls & Revetments, Two Timber Groins
- 80s Private Nourishment Project at South Seas
- Construction of Redfish Pass Groin



- 9) \_\_\_\_\_
- 11) \_\_\_\_\_



- 10) \_\_\_\_\_
- 12) \_\_\_\_\_

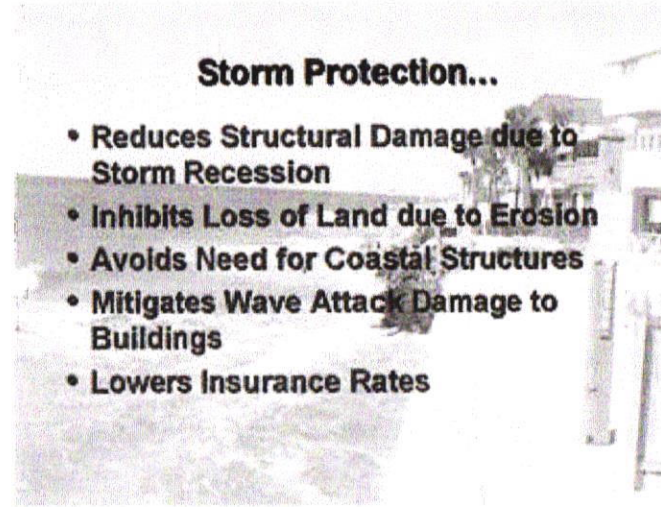


**What is Beach Nourishment?**  
 The introduction of sediments to a beach to compensate for a natural or anthropogenic deficit.



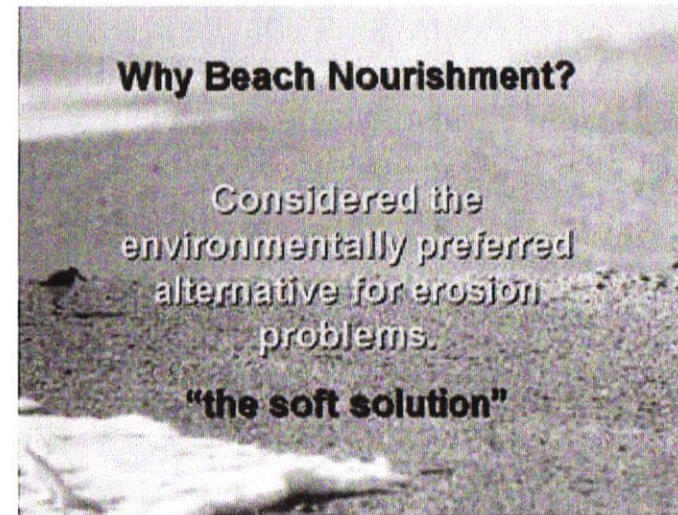
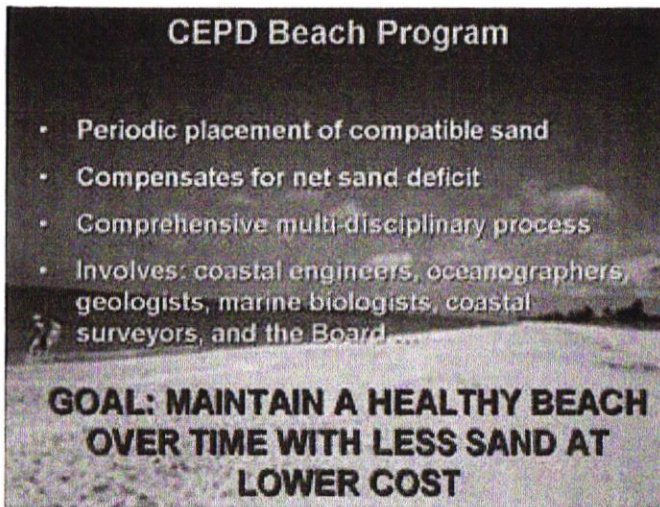
13) \_\_\_\_\_

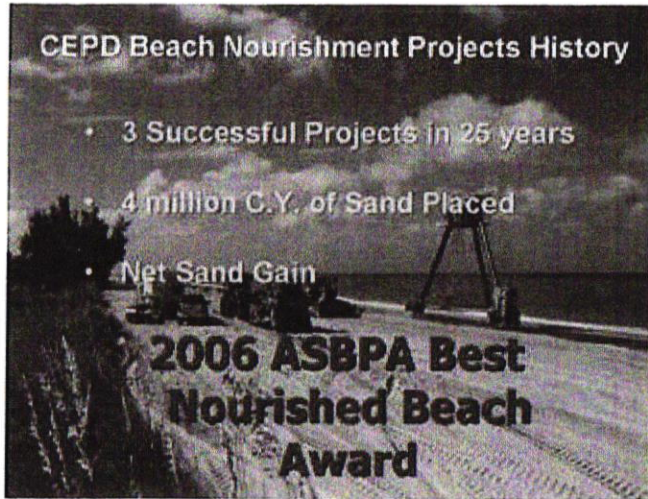
15) \_\_\_\_\_



14) \_\_\_\_\_

16) \_\_\_\_\_



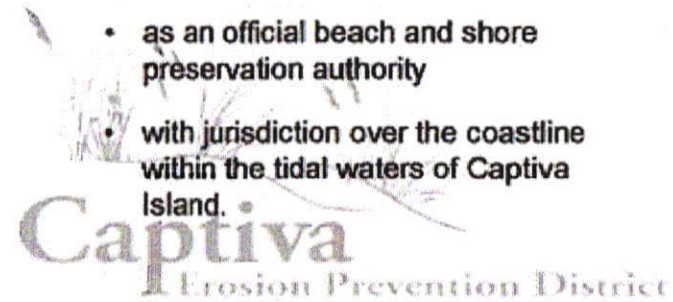


17) \_\_\_\_\_

19) \_\_\_\_\_

**What Is CEPD?**

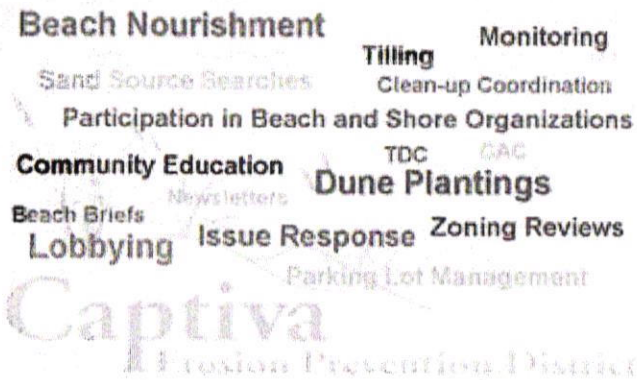
- Originally created by special act in 1959
- Re-constituted in 1981
  - as an official beach and shore preservation authority
  - with jurisdiction over the coastline within the tidal waters of Captiva Island.



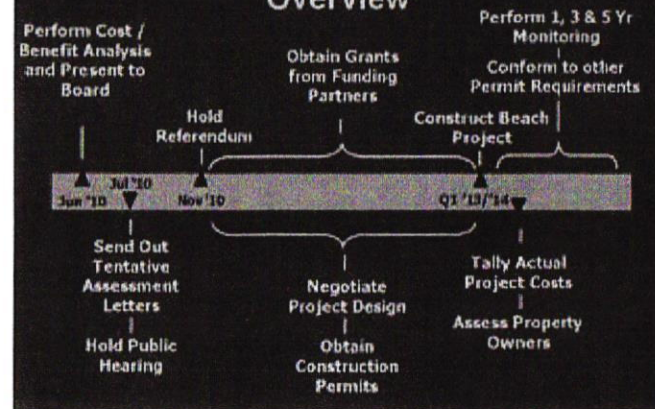
18) \_\_\_\_\_

20) \_\_\_\_\_

**Coastal Management Functions Performed by CEPD**



**Nourishment Project Timeline Overview**



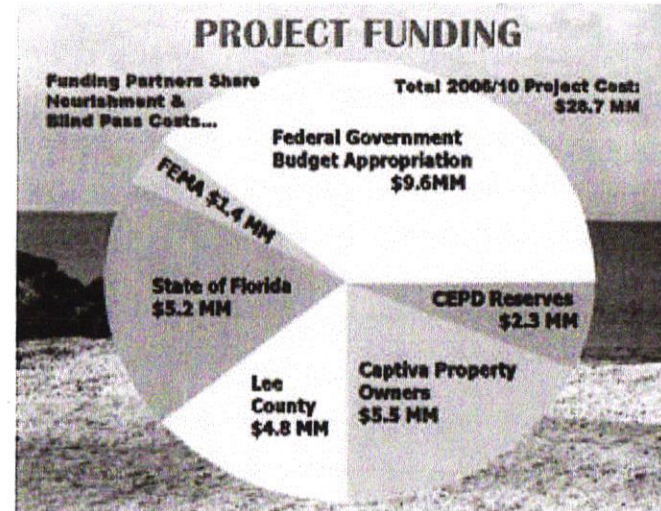
### CEPD Addresses Off-Shore Drilling Issue

- Leadership Role in Coordinating Resolution Drive in Lee County
- Lobbied Legislative & Local Government Representatives
- Authored Numerous Newspaper Articles and Editorials
- Participated in "Hands Across the Sands" Event



21) \_\_\_\_\_

23) \_\_\_\_\_



22) \_\_\_\_\_

24) \_\_\_\_\_

### ...And Funding Partners Share Nourishment Benefits

Federal Gov't - 320:1 ROI

State Gov't - 8:1 ROI

Lee County - ROI includes:

- property taxes
- bed taxes
- sales taxes
- lower cost fulfillment of obligation to Sanibel

### CEPD Deployment of Reserves

Captiva Share of 06/08 Beach Project: \$6.5MM

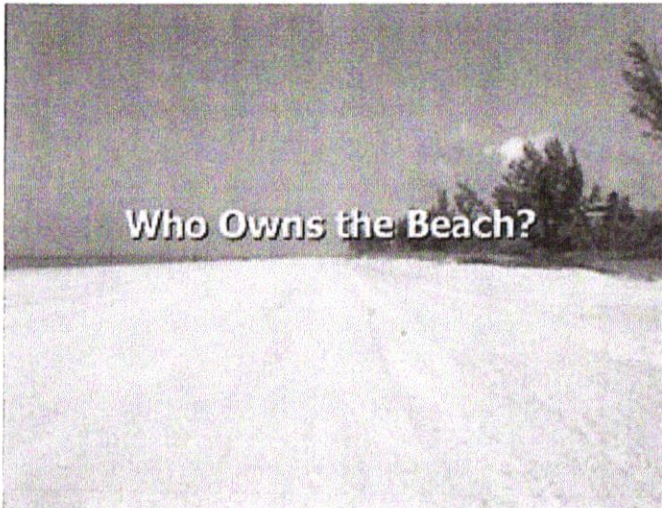
Captiva Share of 09 Blind Pass Project: \$1.3MM

**\$7.8MM**

CEPD Reserves Used to Reduce Total Costs: \$2.3MM

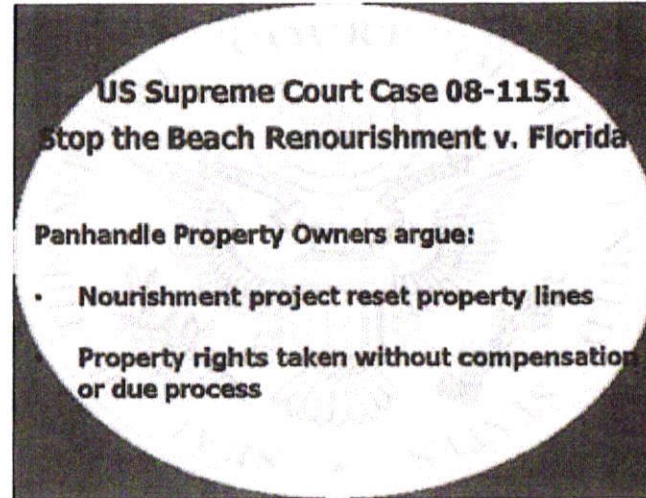
**Property Owners Assessments for Projects Reduced by 30% to \$5.5MM**





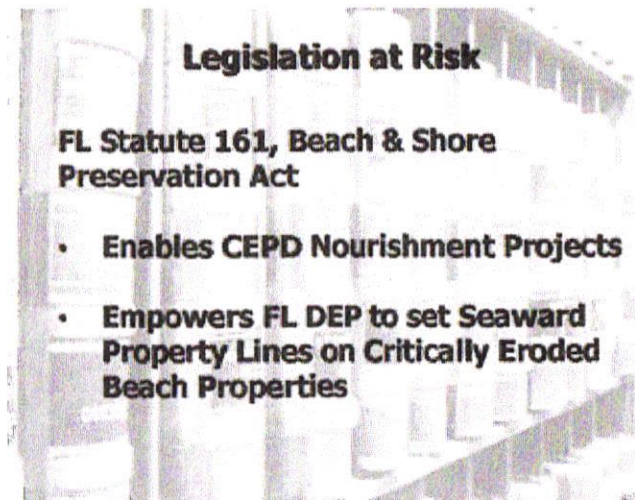
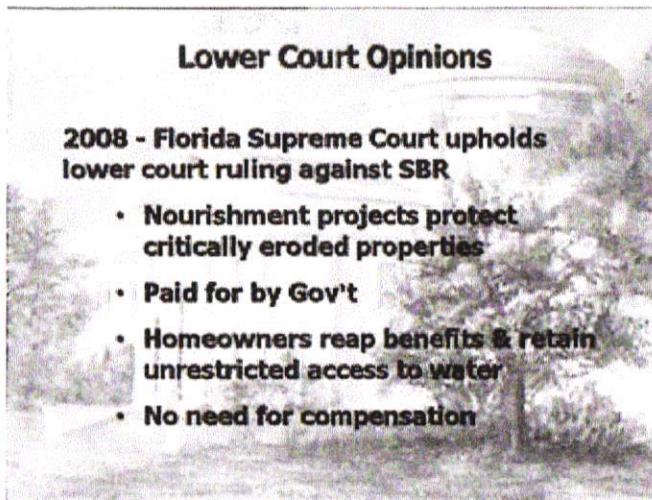
25) \_\_\_\_\_

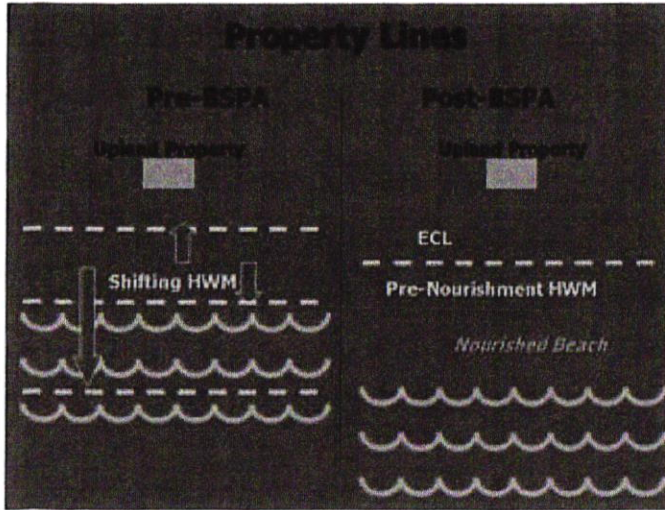
27) \_\_\_\_\_



26) \_\_\_\_\_

28) \_\_\_\_\_





29) \_\_\_\_\_

31) \_\_\_\_\_

### Potential Impact on Captiva

- "...undermine states' authority to determine their own property laws..." – Officials from 27 states supporting Florida BSPA
- Inhibit gov't cost sharing, raising property owner assessments
- Engender confusion over property lines and titles

30) \_\_\_\_\_

32) \_\_\_\_\_

### Please Support the Preservation of Captiva's Beach

- Pass the Referendum for the Next Nourishment Project
- Participate in CEPD Monthly Meetings and Special Events
- Write to your Legislators about Coastal Management Issues
- Encourage Others to Become More Involved

### Blind Pass Success Criteria and What's Next

Captiva Erosion Prevention District  
March 31, 2010

### Project Goals

- Provide a stable pass opening with a 5 Year maintenance schedule
- Increase water circulation in Slam & Dinkins Bayou (3 Day Flushing Cycle in Slam Bayou)
- Improve habitat for Mangroves, Seagrasses, Shorebirds, Benthic Invertebrates, and Fisheries.
- Enhance recreational opportunities in the Pass and along the adjacent beach on Sanibel Island.
- Supplement storm protection along Sanibel Island and Downtown Beach.
- Continue a long term management program to maintain Blind Pass and the surrounding ecosystem.

33) \_\_\_\_\_  
 35) \_\_\_\_\_

### Stable Pass Opening

What is the Definition of Stable Opening Relative to Blind Pass?

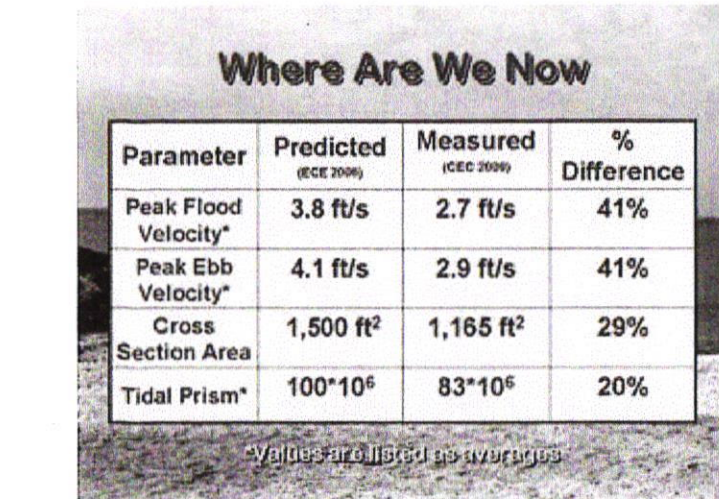
- Maintenance Dredging scheduled on an average 5 yr interval.
- Water mixing sufficient to allow aquatic animals egress and ingress thru Blind Pass and water quality supports seagrass and mangrove habitats.

34) \_\_\_\_\_  
 36) \_\_\_\_\_

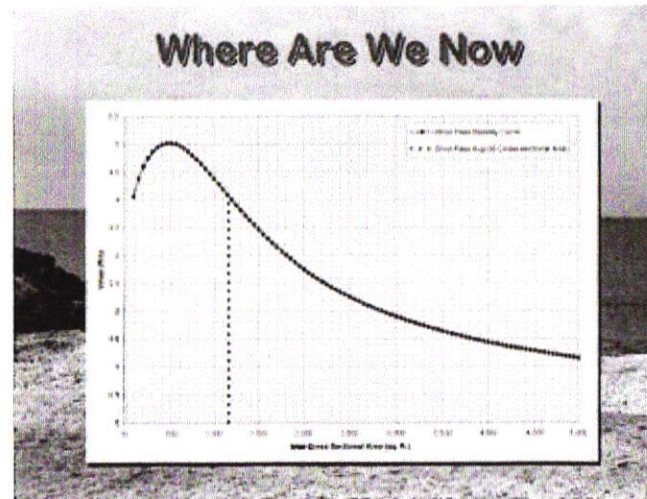
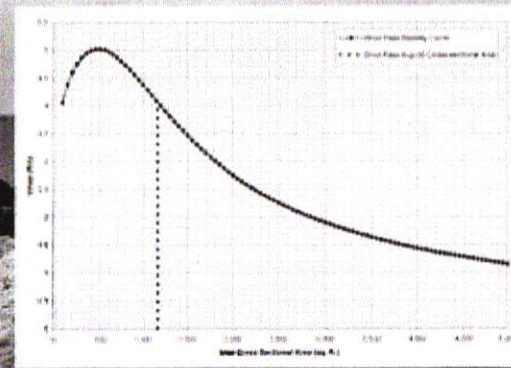
### Where Are We Now

Parameter	Predicted (ECE 2006)	Measured (CEC 2009)	% Difference
Peak Flood Velocity*	3.8 ft/s	2.7 ft/s	41%
Peak Ebb Velocity*	4.1 ft/s	2.9 ft/s	41%
Cross Section Area	1,500 ft <sup>2</sup>	1,165 ft <sup>2</sup>	29%
Tidal Prism*	100*10 <sup>6</sup>	83*10 <sup>6</sup>	20%

\*Values are listed as averages



### Where Are We Now



## Where Are We Now

### Conclusions

**Project is Performing Well but Maintenance Schedule is Unknown**

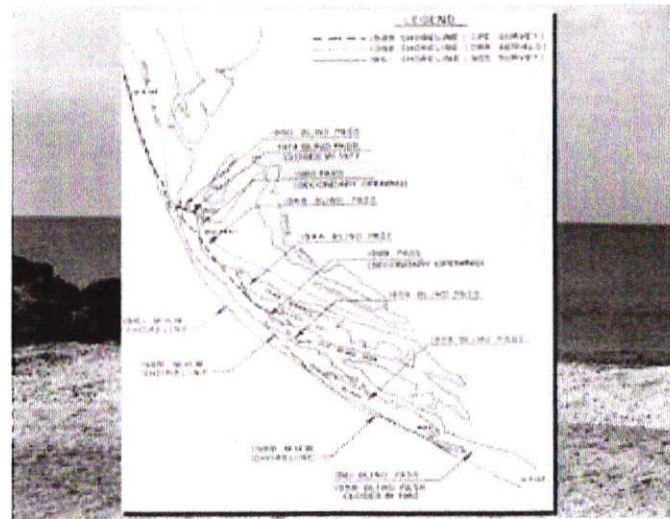
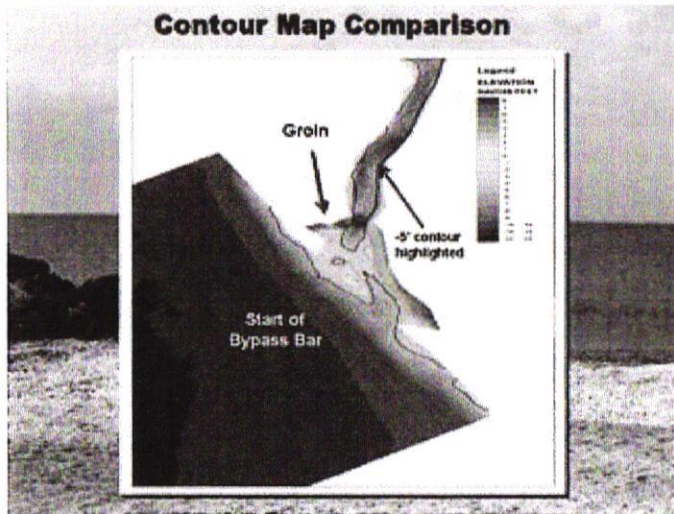
Additional Monitoring is required to identify if dredging is necessary to maintain an 'open' pass thru the initial 5 year schedule.

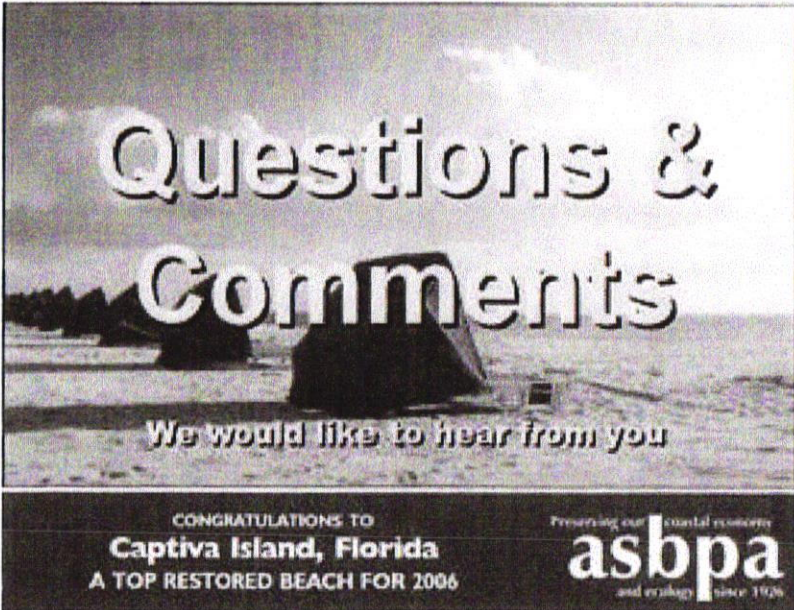
37) \_\_\_\_\_  
39) \_\_\_\_\_

## Next Steps

- Complete necessary steps to finish original project, including permit modification and re-evaluation of design parameters.
- Repeat monitoring efforts in August to further identify stability parameters and shoaling trends.
- Continue Joint Management Effort w/ OEPD, City of Sanibel and Lee County.

38) \_\_\_\_\_  
40) \_\_\_\_\_





41) \_\_\_\_\_

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

A photograph of a bright yellow Adirondack chair on a sandy beach. A straw hat and a colorful, patterned towel are draped over the chair. The background shows the ocean and a clear blue sky. The text "Captiva: The Beach that Almost Wasn't" is overlaid on the top half of the image.

# Captiva: The Beach that Almost Wasn't

**Captiva Erosion Prevention District**

# Overview

- **Reasons for Presentation**
- **What is Erosion?**
- **Captiva Erosion History**
- **What is Beach Nourishment?**
- **What is the CEPD?**
- **What You Can Do**
- **Who Owns the Beach?**
- **Blind Pass**

# The CEPD Needs Your Support to Preserve Captiva's Beach



## Washed Out to Sea:

How Congress Prioritizes Beach Park Over National Needs

United States Senate  
111th Congress  
Congressional Oversight & Investigation Report  
Office of Senator Tom Cotton, R-AR

May 2009  
cotton.senate.gov

news=press.com  
Ft. Myers, Florida :: Southwest Florida

## Sand Scatters in Ft. Myers Beach Nourishment Debate

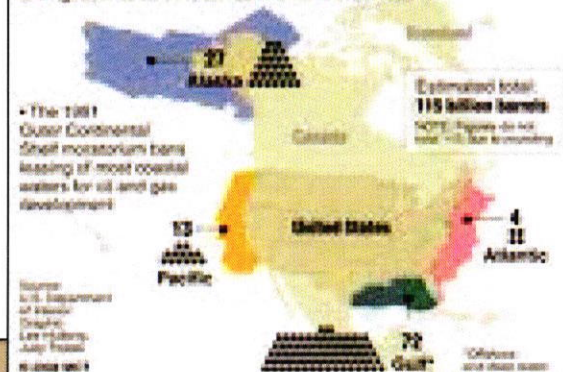


## NEWS RELEASE


**PLF applauds Supreme Court decision to take important Florida property rights case**

## Potential offshore oil reserves

Sen. John McCain wants to lift the ban on offshore oil and gas drilling. Estimated oil reserves in billions of barrels.





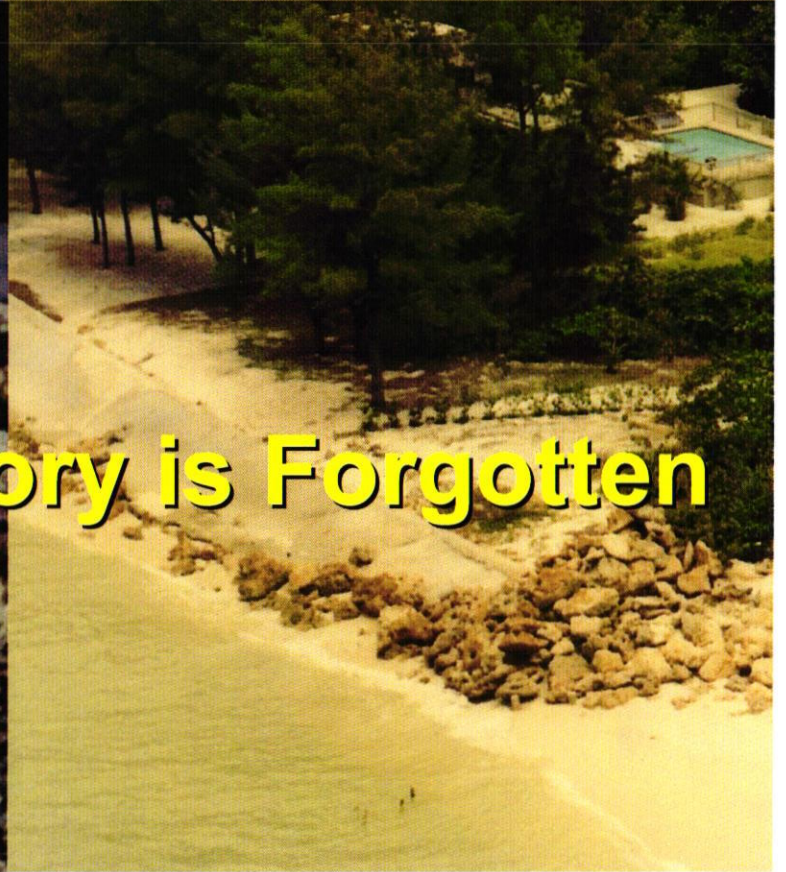


**1985 Total Property  
Value (Pre-Nourishment):  
\$221 Million**



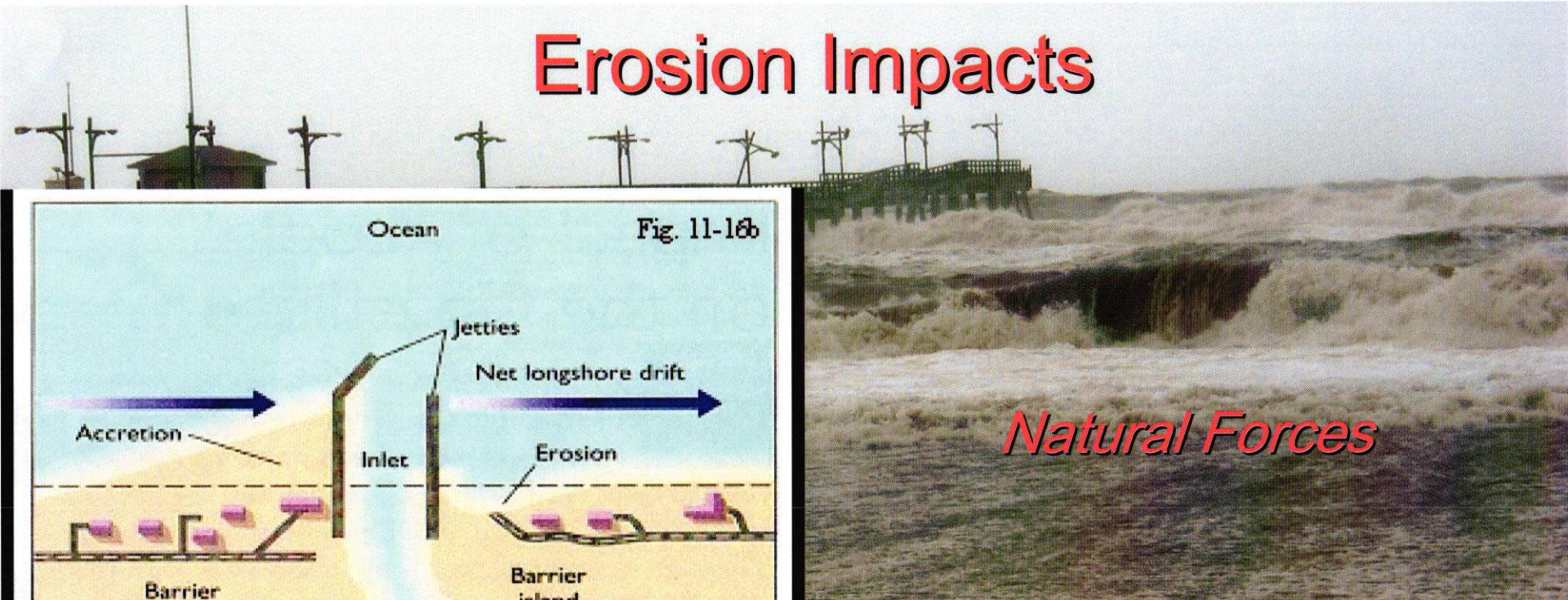
**2009 Total Property  
Value (After 3 Projects):  
\$1.5 Billion**

**Too Easily Taken For Granted...**

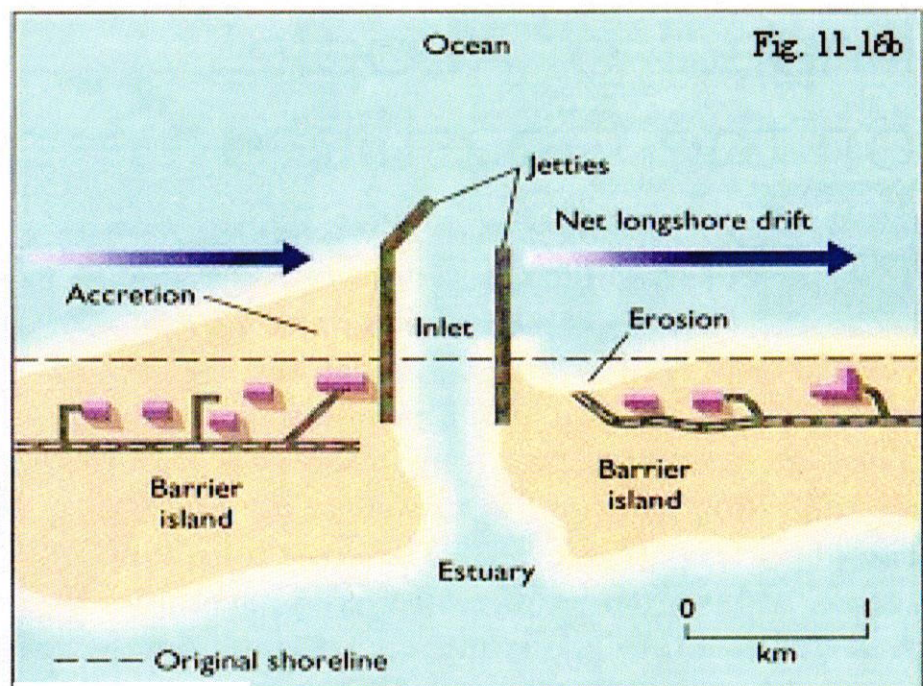


**...When History is Forgotten**

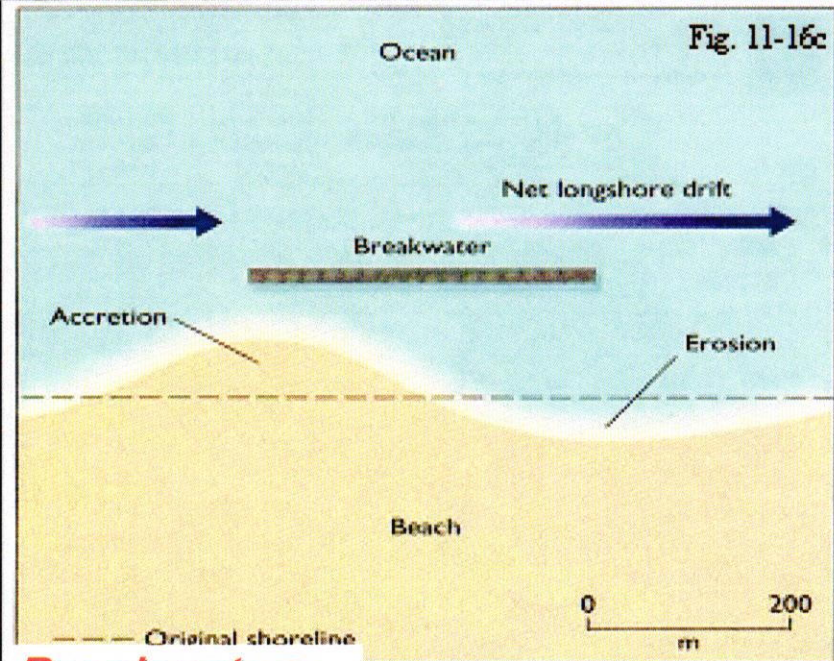
# Erosion Impacts



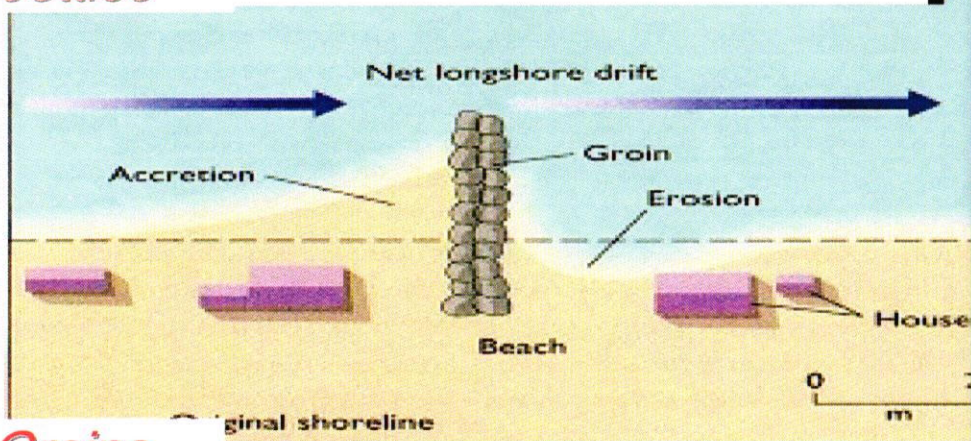
*Natural Forces*



*Jetties*



*Breakwaters*



*Groins*

# Primary Cause of Captiva Erosion:



**REDFISH PASS OPENING IN THE 1920s**

Gulf of  
Mexico

Pine  
Island  
Sound

# Pre-Nourishment Projects History

60s-70s Extensive Seawalls &  
Revetments, Two Timber Groins

80s Private Nourishment Project  
at South Seas

Construction of Redfish Pass Groin

# Mid-80's: Threats Posed by Erosion Demanded an Effective Solution



50 CENTS

## Sanibel and Captiva have suffered rapid erosion, says engineer

By Mary Coleman

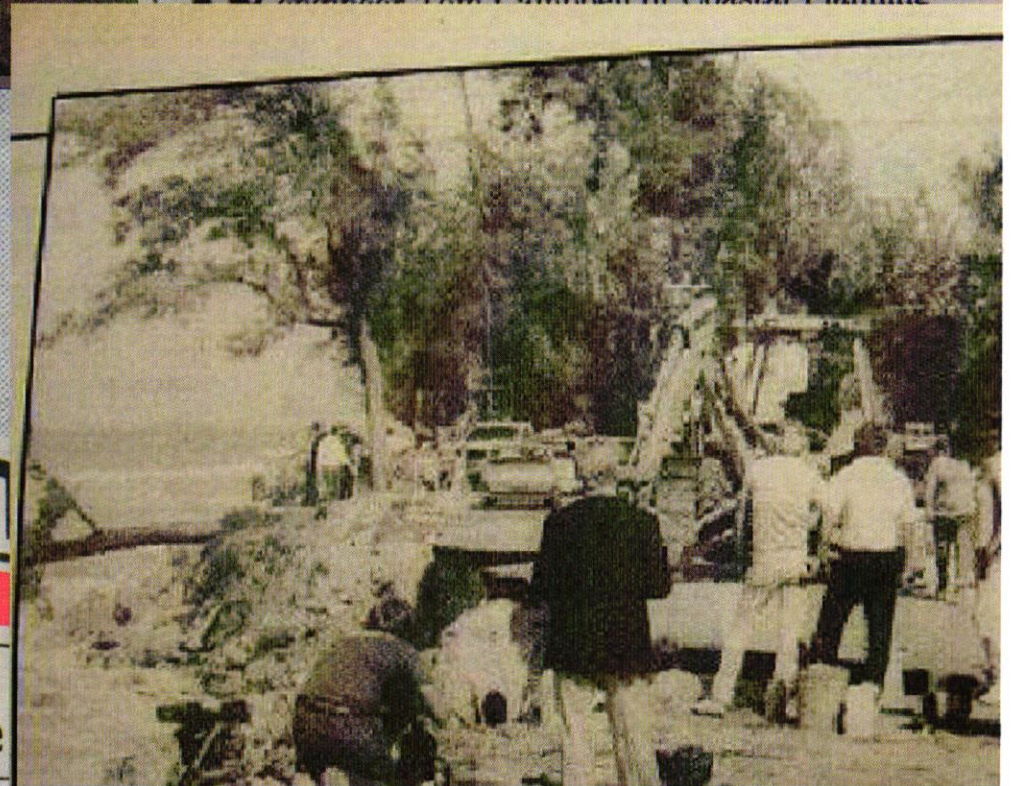
**R**apid erosion took place on Captiva and Sanibel during the last six months, engineer Tom Campbell of Coastal Planning

## Three hurt as wave-battered road collapses

# REPORT

FIRST WITH THE NEWS

### Around-clock effort puts Captiva Road back in service



# However, Divided Public Opinion and an Anti-Nourishment CEPD Board resulted in "Sand Wars"

D. Mayeron  
*Captiva*

Where is  
the CEPD's  
good faith?

To Island Reporter: I am ver

## Tyranny of minority will continue over beach nourishment

ADVERTISEMENT

To all Captiva Island registered voters:

— VOTE —  
**FOR**  
THE BONDS.  
THE BEACHES. THE FUTURE.

ISLA  
Gosh, I thought those wonderful  
movie scripts were lost forever.  
Please congratulate Mr. Steve  
Cason for a fine re-write of at least  
five Laurel and Hardy pictures.

William H. R. Howard  
*Columbus, OH*

### Cohen calls for CEPD resignations

orter:  
chultz's  
your p  
SPORTER  
CEPD board  
should honor  
previous  
commitment

Even though the solution to a problem may be  
obvious, bringing that solution to life often

separate from the rest because it will occur at a  
date...estimated to be at least four years from the

*Captiva*

## CEPD board under fire for failing to hold referendum

orter: The results of  
operty owner opinion  
date, are almost nine  
(according to William  
int). Check it out.  
one in favor of the  
That's even better  
s own three to one in  
plan, isn't it? Let's  
EPDs minority vote  
commissioner.

## Martin and Garvey listen only to minority

To Island Reporter: It has been over

# Eventually, Common Sense and the Will of the People Won Out

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## Maybe . . . light at end of tunnel shines on beach nourishment

To Island Reporter: Peg  
PAGE 1B

captiva  
poll shows 96% favor beach plan  
"That's an unusually high response for  
and the CCA's support will be  
ty and the CEPD.

**S.O.S. CAPTIVA**  
POLITICAL COMMITTEE  
P.O. BOX 888  
CAPTIVA, FLORIDA 3392

Kleinhans is elected president of Concerned Citizens of Captiva

island REPORTER

VOLUME 15  
NUMBER 14  
3 SECTIONS, 80 PAGES

SANIBEL AND CAPTIVA, FL

10A □ SEPTEMBER 11, 1986 □ ISLAND REPO

## 'Mellowed' CEPD board seeks some solutions

FIRST WITH THE NEWS 50

## DNR erosion expert says bury hatchet and save beach

Ryder, Dean, outline state coast-saving plan

By Matt Perez

Florida Department of Natural Resources erosion experts Lonnie Ryder and Dr. Robert Dean came down from the frigid Tallahassee weather Tuesday night to tell Captivans to fix their eroding beaches. "The important thing is to get good quality sand on the beach," Lonnie Ryder said during a break at Tuesday's Captiva Erosion Prevention District meeting. Dean, regarded as one of the world's foremost erosion experts, outlined the state's plan to save Florida's eroding coastline. At least 56 beaches, in-

tune of 3-4 cubic yards of sand per foot of coastline per year. Dean said he is familiar with Captiva's particular problem and that he has visited the CEPD before the Tuesday night meeting. Said Concerned Citizens of Captiva administrator Kate Gooderham: "The people of Captiva may tend to take him a little bit for granted because he has visited the island so many times." Ryder said the state has no wish to get involved with the unique local politics of putting a beach-saving plan into effect, and that the CEPD should be able to work out its own plan. Toward that effort, the CEPD moved forward with their Comprehensive Beach and Shore Preservation Program (CBASPP) by unanimously approving contracts to allow Applied Technology and

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Captivans cheer as CEPD passes beach preservation resolution



## **What is Beach Nourishment?**

**The introduction of sediments to a beach to compensate for a natural or anthropogenic deficit.**



# Reasons for Beach Nourishment

- Erosion Control
- Storm Protection
- Habitat Restoration



## Storm Protection...

- **Reduces Structural Damage due to Storm Recession**
- **Inhibits Loss of Land due to Erosion**
- **Avoids Need for Coastal Structures**
- **Mitigates Wave Attack Damage to Buildings**
- **Lowers Insurance Rates**



# CEPD Beach Program

- Periodic placement of compatible sand
- Compensates for net sand deficit
- **Comprehensive multi-disciplinary process**
- **Involves: coastal engineers, oceanographers, geologists, marine biologists, coastal surveyors, and the Board ...**

**GOAL: MAINTAIN A HEALTHY BEACH  
OVER TIME WITH LESS SAND AT  
LOWER COST**

# **Why Beach Nourishment?**

**Considered the environmentally preferred alternative for erosion problems.**

**“the soft solution”**



# CEPD Beach Nourishment Projects History

- **3 Successful Projects in 25 years**
- **4 million C.Y. of Sand Placed**
- **Net Sand Gain**

**2006 ASBPA Best  
Nourished Beach  
Award**



## What Is CEPD?

- Originally created by special act in 1959
- Re-constituted in 1981
  - as an official beach and shore preservation authority
  - with jurisdiction over the coastline within the tidal waters of Captiva Island.

**Captiva**  
**Erosion Prevention District**

# Coastal Management Functions Performed by CEPD

**Beach Nourishment**

**Sand Source Searches**

**Participation in Beach and Shore Organizations**

**Community Education**

**Newsletters**

**Beach Briefs**

**Lobbying**

**Issue Response**

**Parking Lot Management**

**Tilling**

**Clean-up Coordination**

**Monitoring**

**TDC**

**CAC**

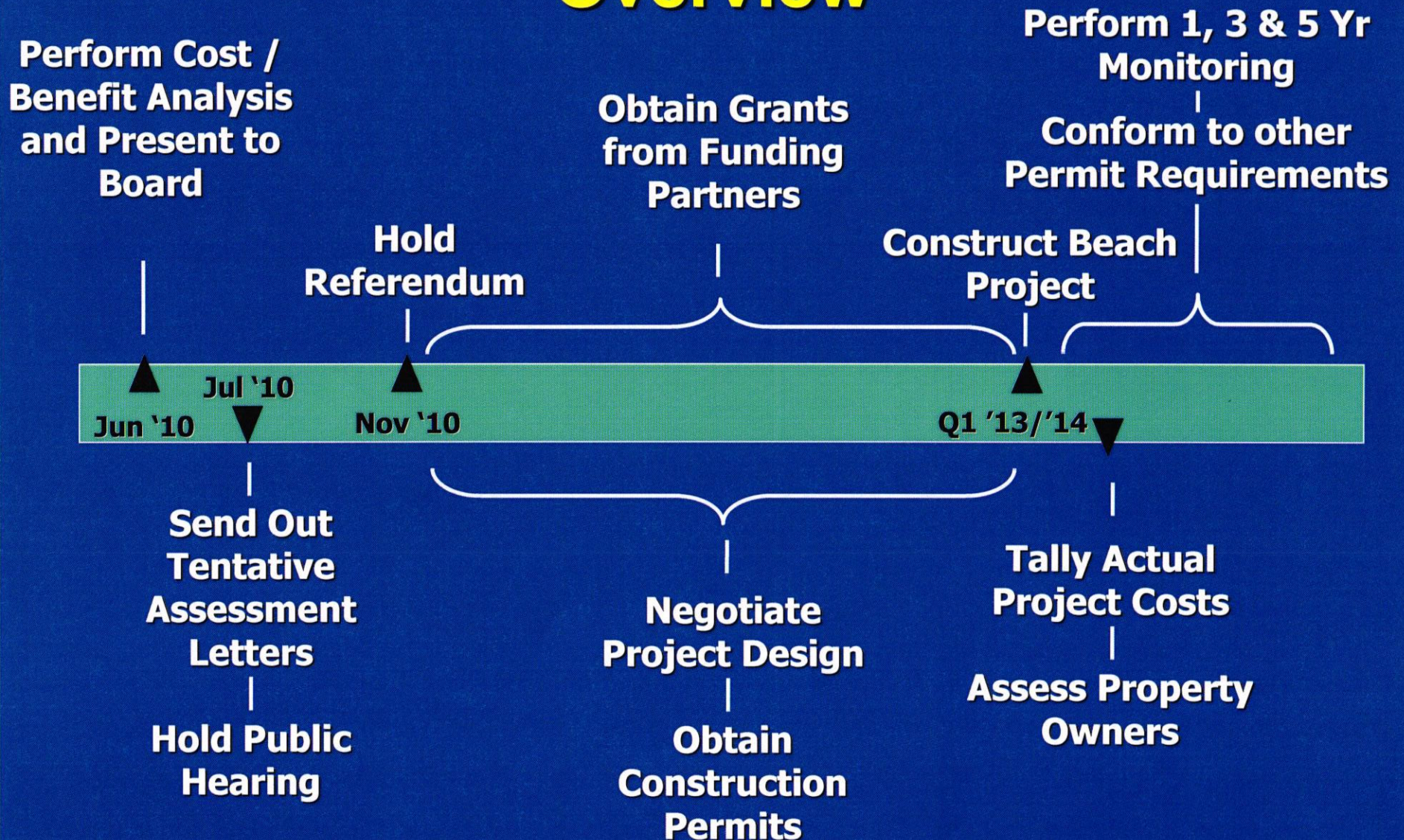
**Dune Plantings**

**Zoning Reviews**

**Captiva**  
Erosion Prevention District



# Nourishment Project Timeline Overview



# **CEPD Addresses Off-Shore Drilling Issue**

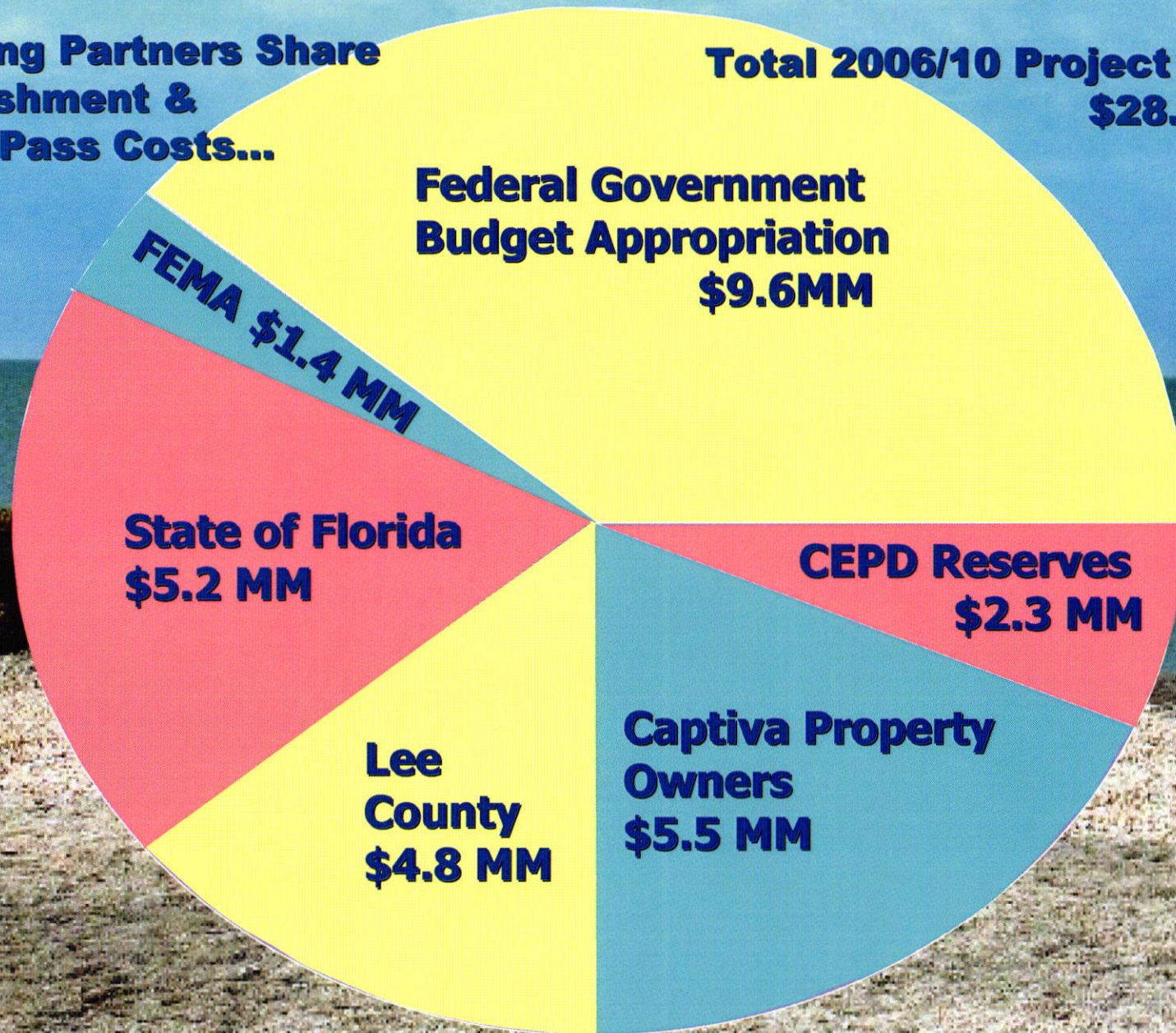
- **Leadership Role in Coordinating Resolution Drive in Lee County**
- **Lobbied Legislative & Local Government Representatives**
- **Authored Numerous Newspaper Articles and Editorials**
- **Participated in “Hands Across the Sands” Event**



# PROJECT FUNDING

**Funding Partners Share  
Nourishment &  
Blind Pass Costs...**

**Total 2006/10 Project Cost:  
\$28.7 MM**





# ...And Funding Partners Share Nourishment Benefits

**Federal Gov't - 320:1 ROI**

**State Gov't - 8:1 ROI**

**Lee County - ROI includes:**

- property taxes
- sales taxes
- bed taxes
- lower cost fulfillment of obligation to Sanibel

# CEPD Deployment of Reserves

Captiva Share of 06/08 Beach Project: \$6.5MM  
Captiva Share of 09 Blind Pass Project: \$1.3MM  
\$7.8MM

CEPD Reserves Used to Reduce Total Costs:  
\$2.3MM

**Property Owners Assessments for  
Projects Reduced by 30% to \$5.5MM**

A wide, sandy beach with a path leading to the ocean under a blue sky with some clouds. The text "Who Owns the Beach?" is overlaid in the center.

**Who Owns the Beach?**

The background of the slide is the official seal of the United States Supreme Court. It features a central eagle with wings spread, holding an olive branch and arrows. The eagle is perched on a shield with vertical stripes. Above the eagle's head is a constellation of stars. The words "THE SUPREME COURT OF THE UNITED STATES" are inscribed around the perimeter of the seal, with a small star at the bottom center.

**US Supreme Court Case 08-1151**  
**Stop the Beach Renourishment v. Florida**

**Panhandle Property Owners argue:**

- **Nourishment project reset property lines**
- **Property rights taken without compensation or due process**



# **Lower Court Opinions**

## **2008 - Florida Supreme Court upholds lower court ruling against SBR**

- **Nourishment projects protect critically eroded properties**
- **Paid for by Gov't**
- **Homeowners reap benefits & retain unrestricted access to water**
- **No need for compensation**





## **Legislation at Risk**

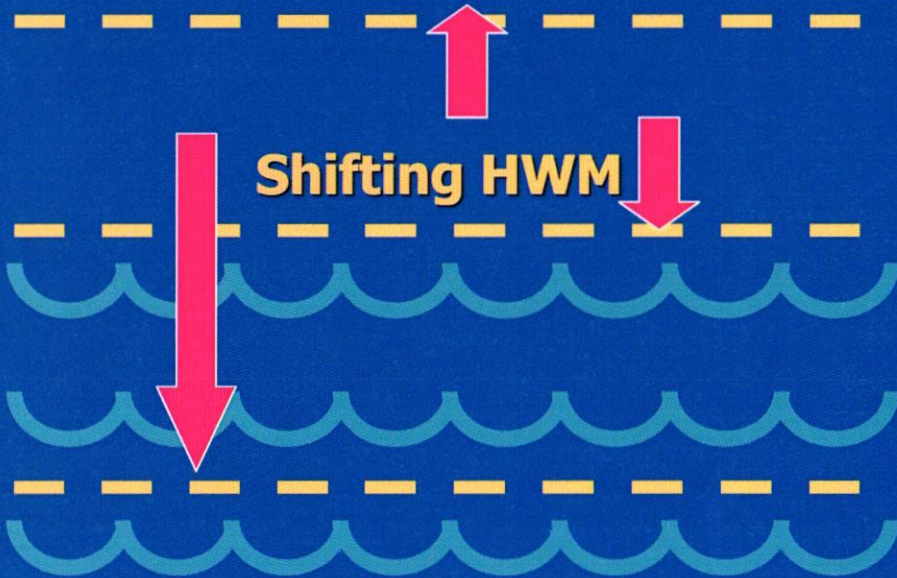
### **FL Statute 161, Beach & Shore Preservation Act**

- **Enables CEPD Nourishment Projects**
- **Empowers FL DEP to set Seaward Property Lines on Critically Eroded Beach Properties**

# Property Lines

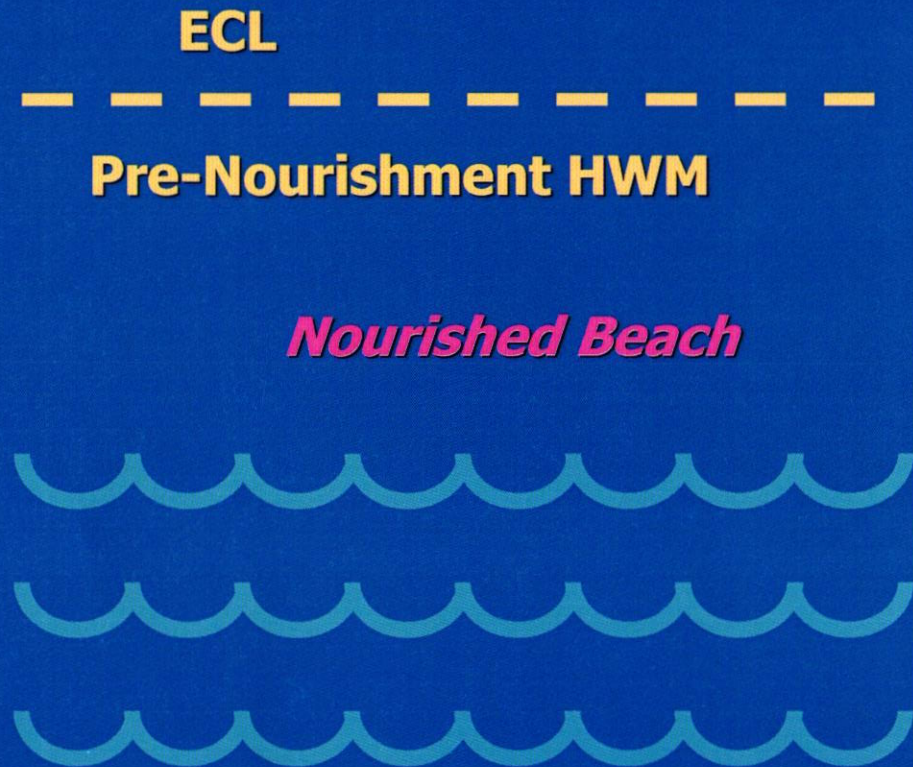
## Pre-BSPA

Upland Property



## Post-BSPA

Upland Property



An aerial photograph of a coastal property. On the left, there is a large, multi-story house with a red roof and a swimming pool. A paved road or driveway leads from the house towards the right. The property is bordered by a white sandy beach and the ocean. The water is a clear, light blue color. The sky is bright and clear.

# Potential Impact on Captiva

- **“...undermine states’ authority to determine their own property laws...” – Officials from 27 states supporting Florida BSPA**
- **Inhibit gov’t cost sharing, raising property owner assessments**
- **Engender confusion over property lines and titles**

# Please Support the Preservation of Captiva's Beach

- **Pass the Referendum for the Next Nourishment Project**
- **Participate in CEPD Monthly Meetings and Special Events**
- **Write to your Legislators about Coastal Management Issues**
- **Encourage Others to Become More Involved**



# **Blind Pass Success Criteria and What's Next**



**Captiva Erosion Prevention District  
March 31, 2010**

# Project Goals

- **Provide a stable pass opening with a 5 Year maintenance schedule**
- **Increase water circulation in Clam & Dinkins Bayou (4 Day Flushing Cycle in Clam Bayou)**
- **Improve habitat for Mangroves, Seagrasses, Shorebirds, Benthic Invertebrates, and Fisheries.**
- **Enhance recreational opportunities in the Pass and along the adjacent beach on Sanibel Island.**
- **Supplement storm protection along Sanibel Island and Bowmans Beach.**
- **Continue a long term management program to maintain Blind Pass and the surrounding ecosystem.**

# **Stable Pass Opening**

**What is the Definition of Stable Opening  
Relative to Blind Pass?**

- **Maintenance Dredging scheduled on an average 5 yr interval.**
- **Water mixing sufficient to allow aquatic animals egress and ingress thru Blind Pass and water quality supports seagrass and mangrove habitats.**

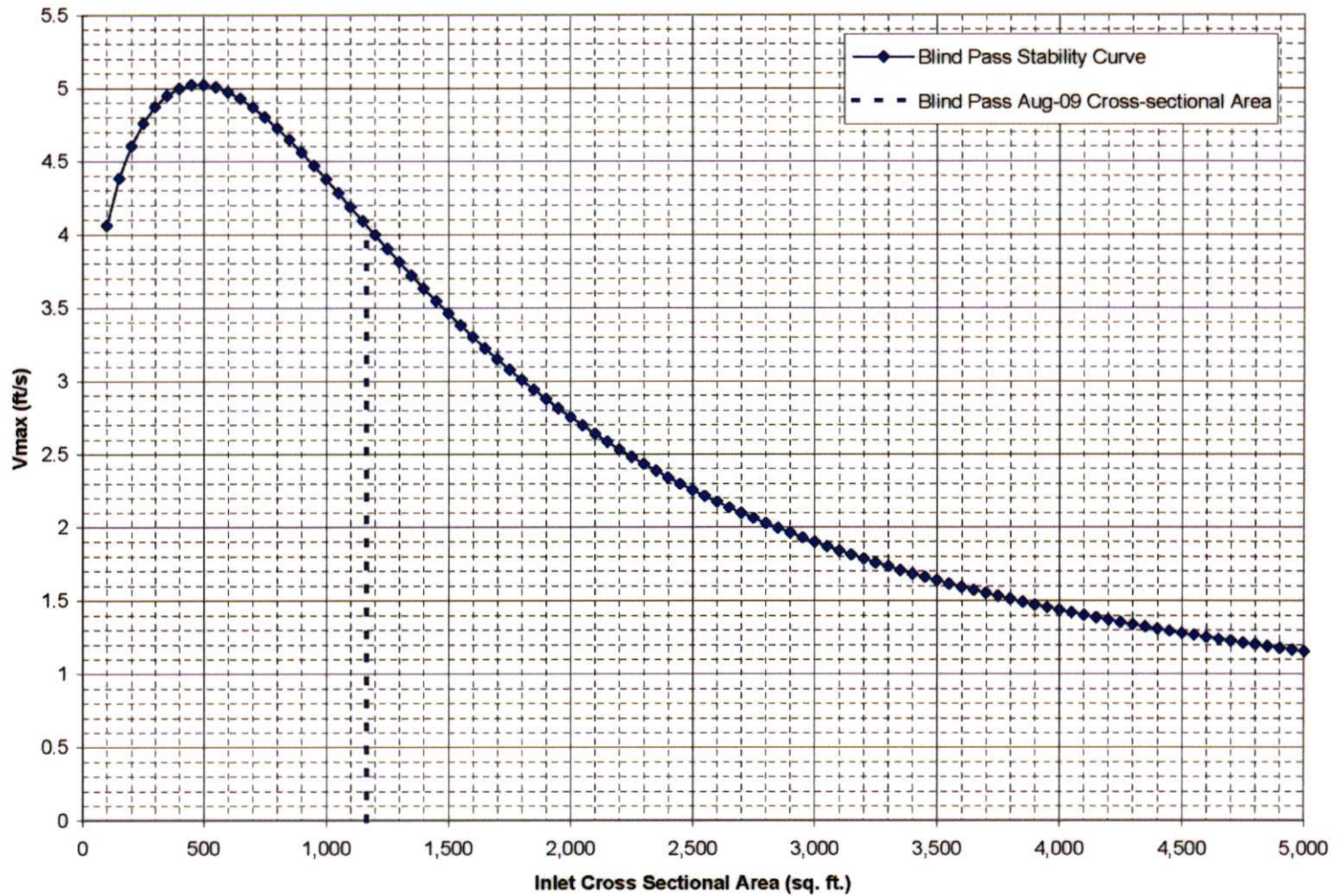
# Where Are We Now

<b>Parameter</b>	<b>Predicted (ECE 2006)</b>	<b>Measured (CEC 2009)</b>	<b>% Difference</b>
<b>Peak Flood Velocity*</b>	<b>3.8 ft/s</b>	<b>2.7 ft/s</b>	<b>41%</b>
<b>Peak Ebb Velocity*</b>	<b>4.1 ft/s</b>	<b>2.9 ft/s</b>	<b>41%</b>
<b>Cross Section Area</b>	<b>1,500 ft<sup>2</sup></b>	<b>1,165 ft<sup>2</sup></b>	<b>29%</b>
<b>Tidal Prism*</b>	<b>100*10<sup>6</sup></b>	<b>83*10<sup>6</sup></b>	<b>20%</b>

**\*Values are listed as averages**



# Where Are We Now



# **Where Are We Now**

## **Conclusions**

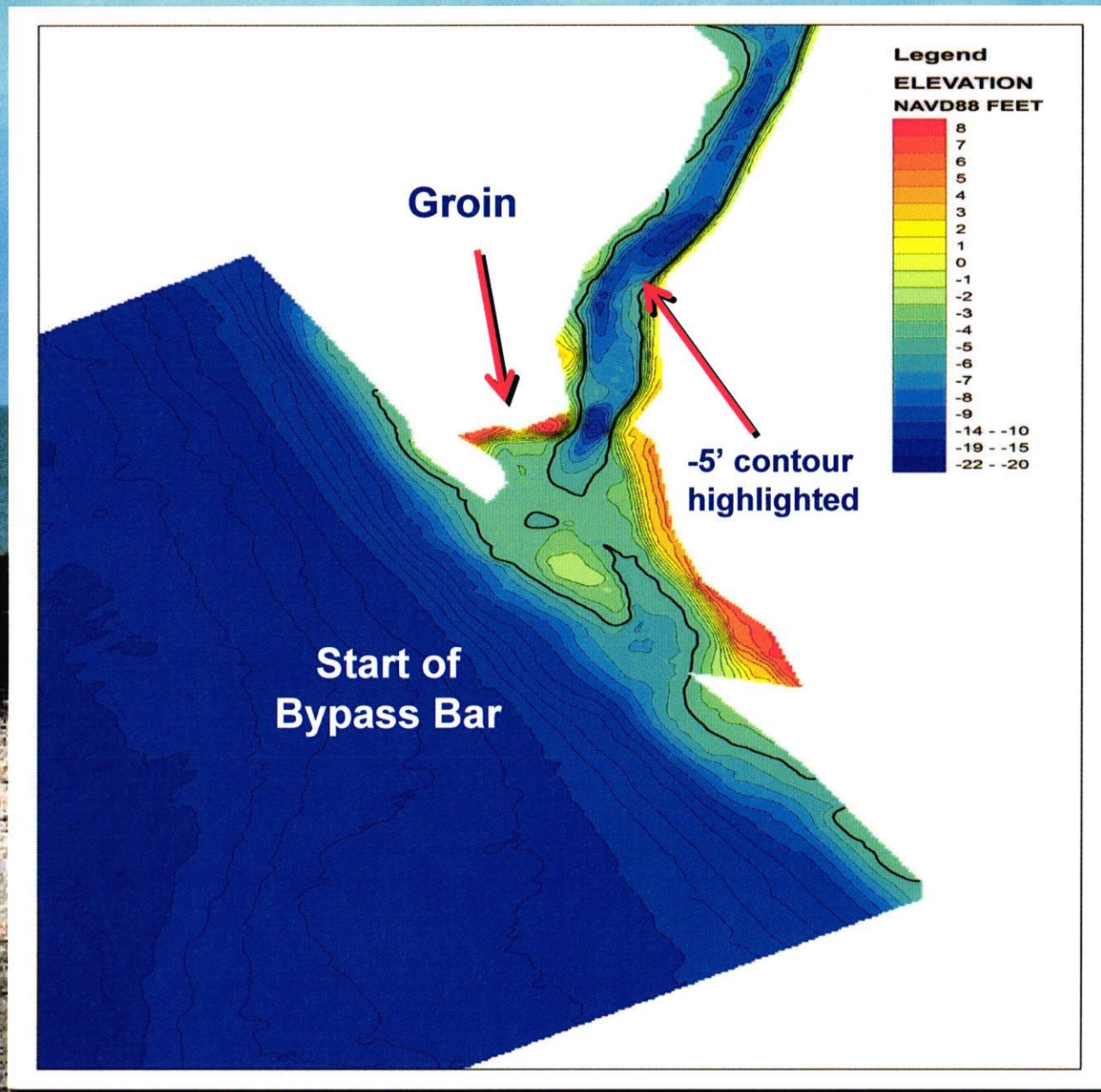
**Project is Performing Well but  
Maintenance Schedule is Unknown**

**Additional Monitoring is required to identify  
if dredging is necessary to maintain an  
'open' pass thru the initial 5 year schedule.**

# Next Steps

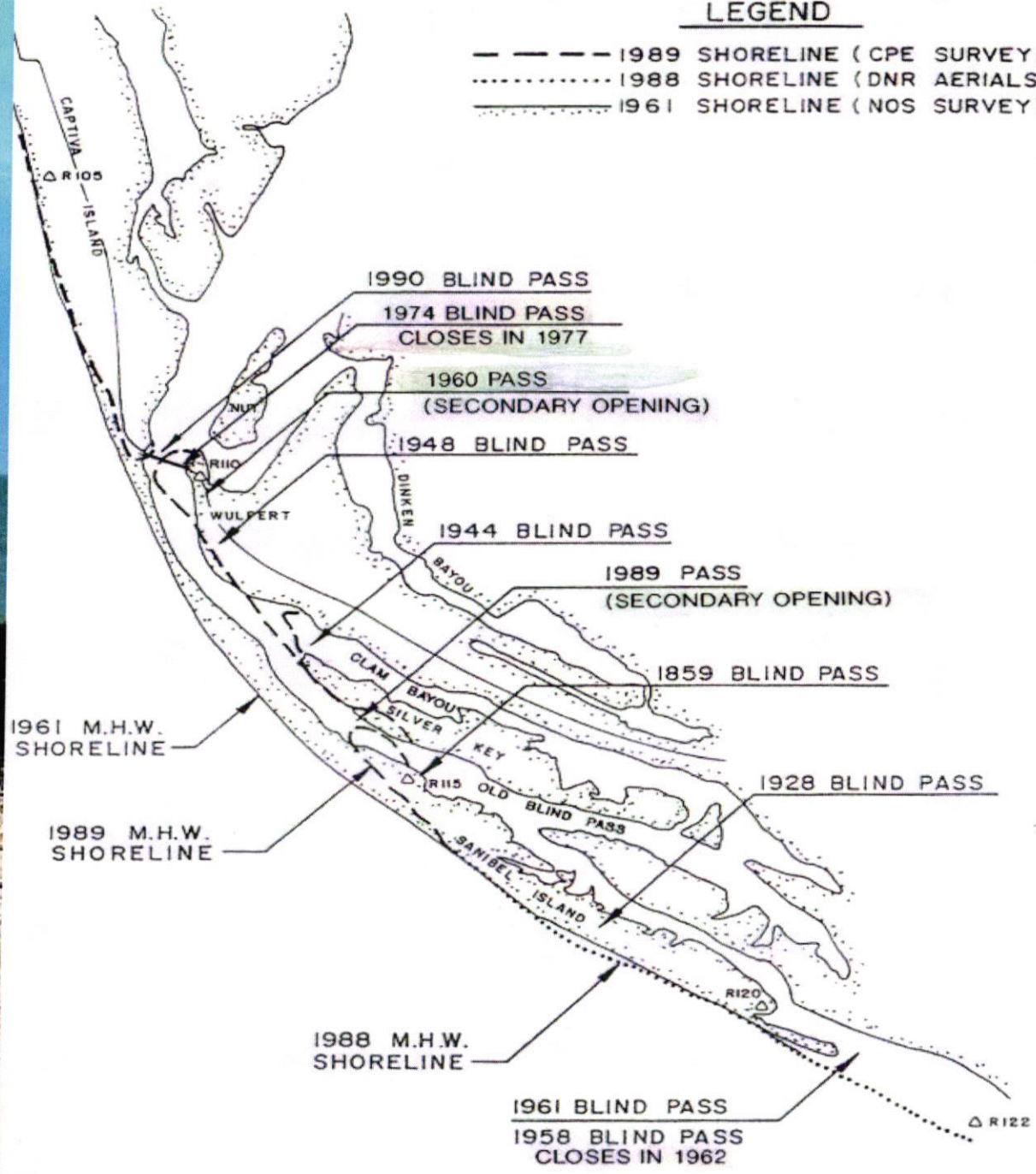
- **Complete necessary steps to finish original project, including permit modification and re-evaluation of design parameters.**
- **Repeat monitoring efforts in August to further identify stability parameters and shoaling trends.**
- **Continue Joint Management Effort w/ CEPD, City of Sanibel and Lee County.**

# Contour Map Comparison



**LEGEND**

- — — — — 1989 SHORELINE (CPE SURVEY)
- ..... 1988 SHORELINE (DNR AERIALS)
- ..... 1961 SHORELINE (NOS SURVEY)






# Questions & Comments

**We would like to hear from you**

CONGRATULATIONS TO  
**Captiva Island, Florida**  
A TOP RESTORED BEACH FOR 2006

Preserving our coastal economy  
**asbpa**  
and ecology since 1926

## Blind Pass Status



Steve Keehn, P.E.  
Coastal Planning & Engineering  
March 3, 2010

Thanks to information Provided by Lee County & their consultants

## Topics

- Inlet Bathymetry after 6-months
- Volume & Contour Change in 1st 6-Months
- Historic vs. Current Coastal Processes
- Preliminary Stability Trends

1) \_\_\_\_\_

3) \_\_\_\_\_



2) \_\_\_\_\_

4) \_\_\_\_\_


## Blind Pass Reopening

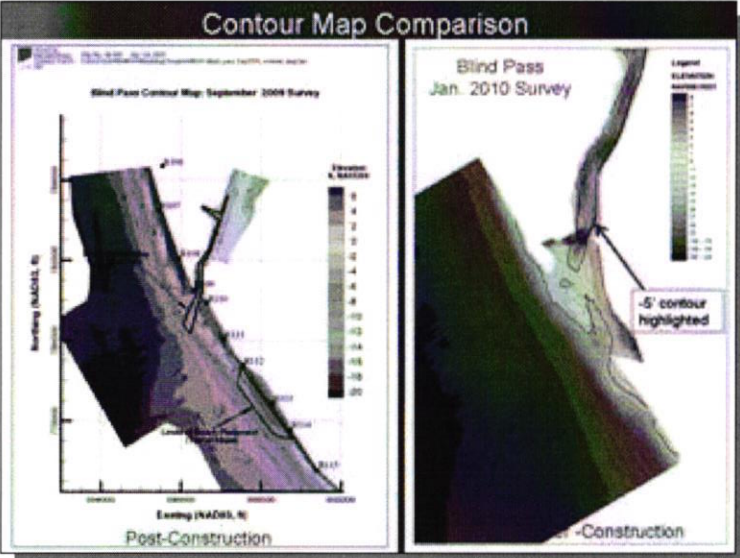
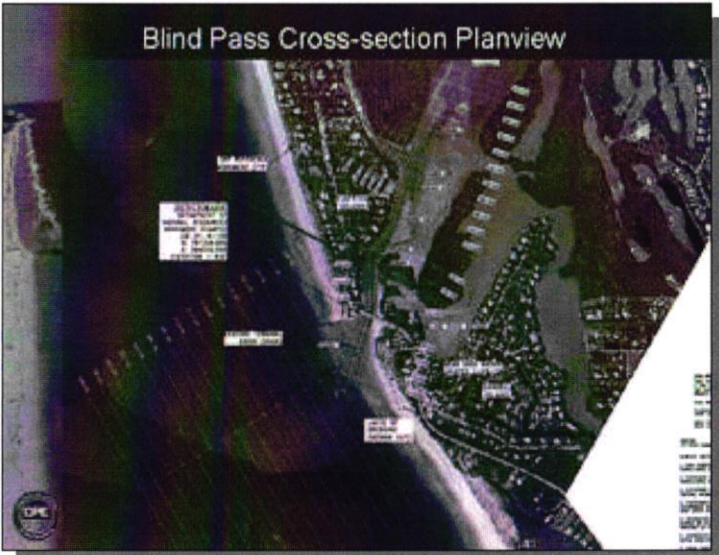
Goal

1. Provide improved stable pass opening
2. Increase water circulation in Clam and Dinkins Bayou
3. Improve habitat
4. Enhance recreational opportunities
5. Bypassed 138,000 cy

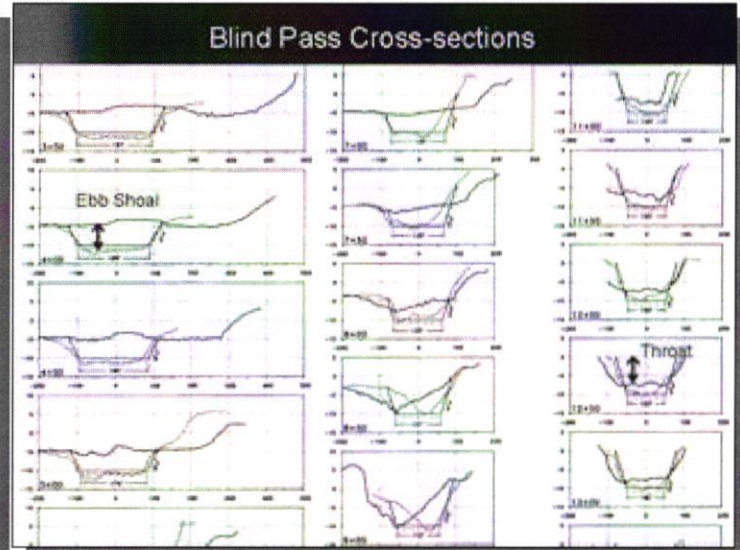
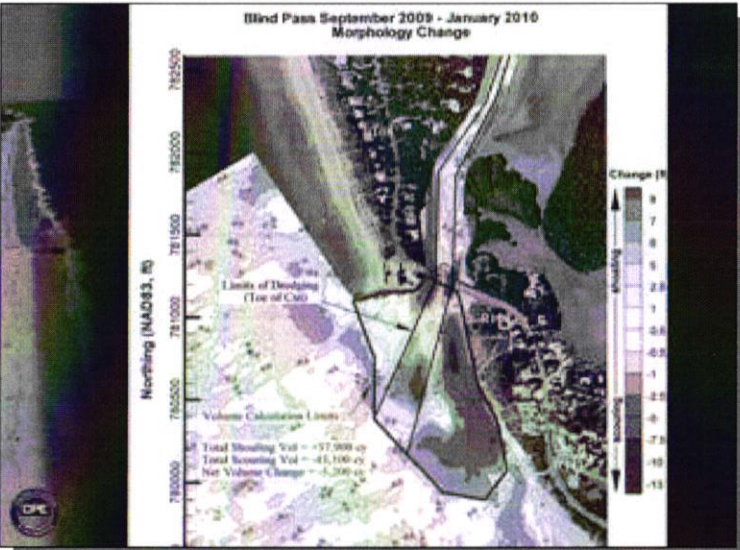
Aerial  
Photographs of  
Blind Pass  
immediately  
after opening.



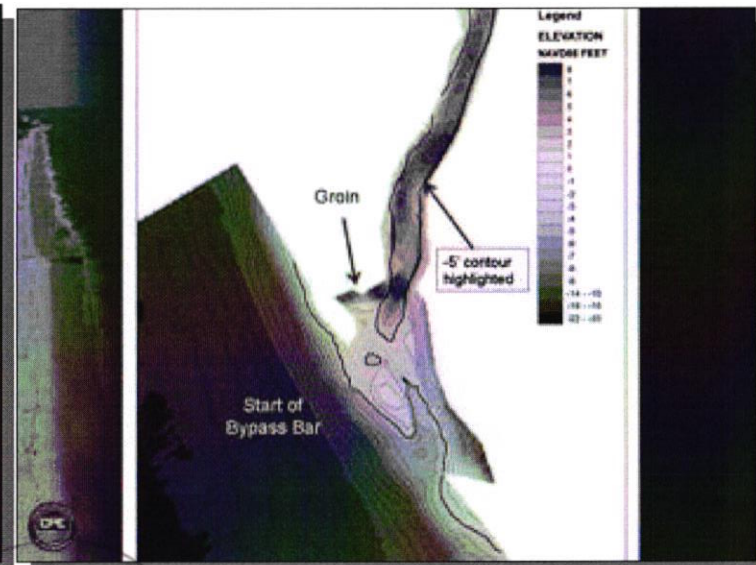
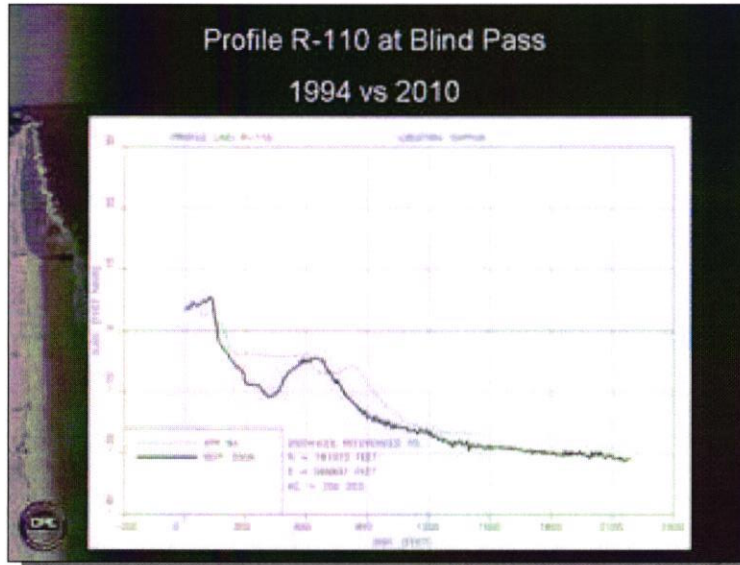


5) \_\_\_\_\_  
7) \_\_\_\_\_

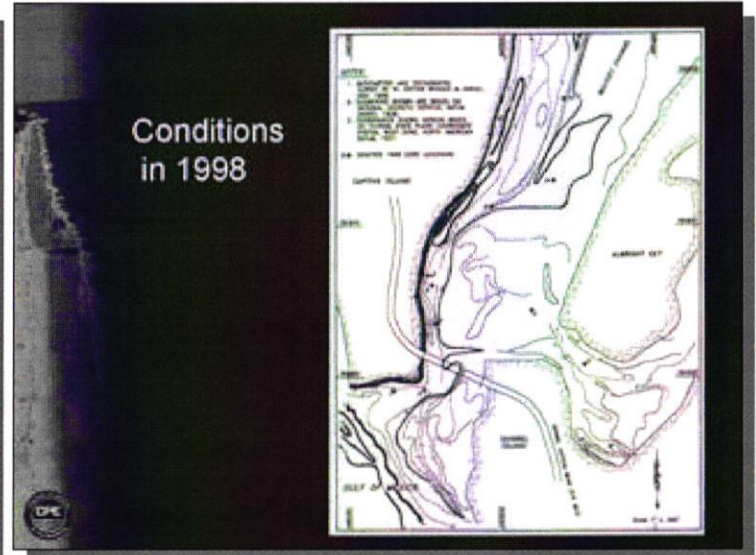
6) \_\_\_\_\_  
8) \_\_\_\_\_

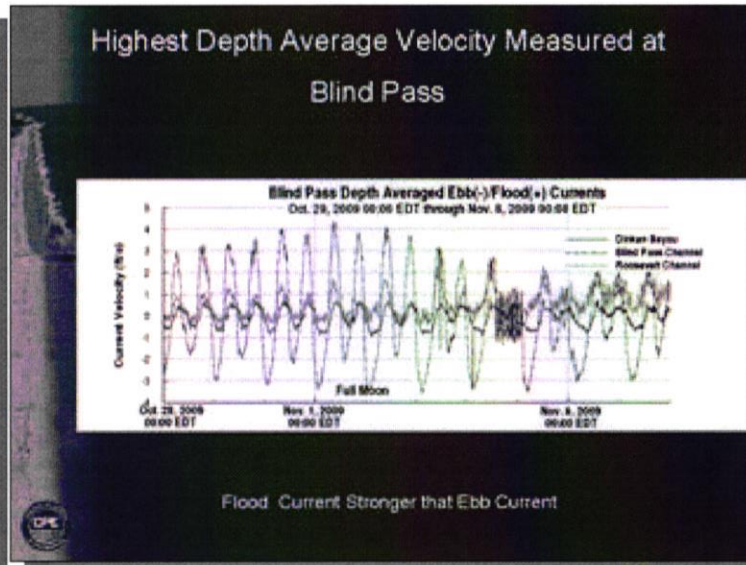
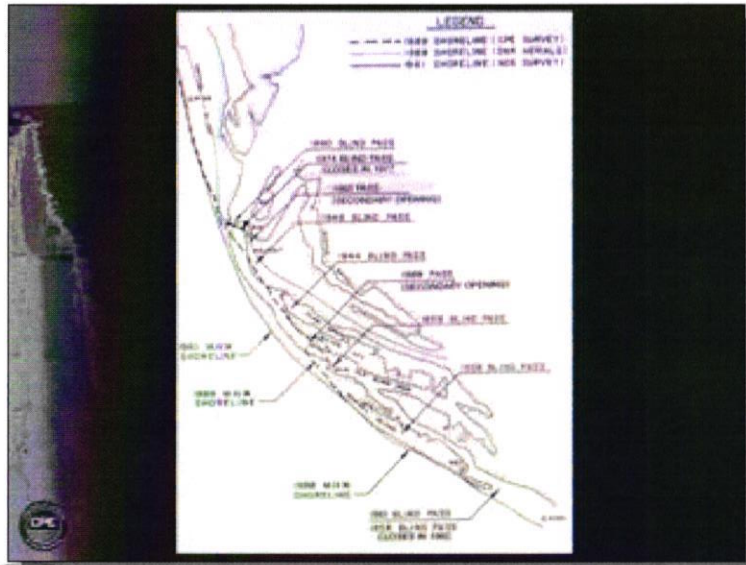






- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_
- 12) \_\_\_\_\_



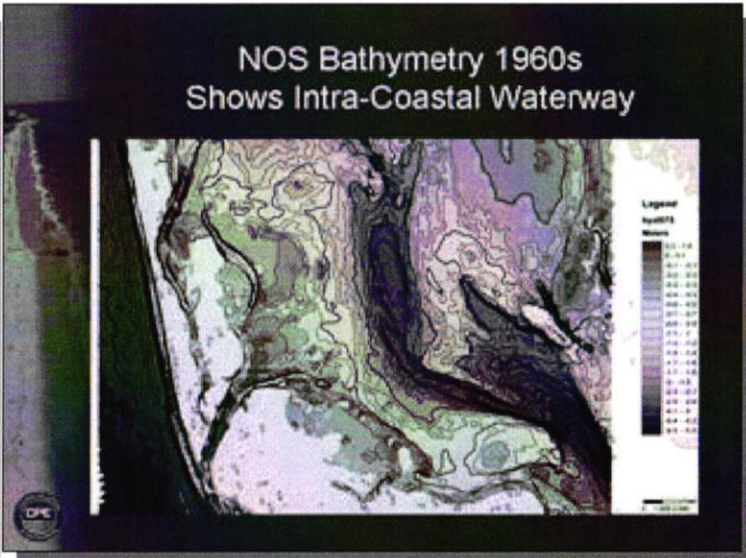
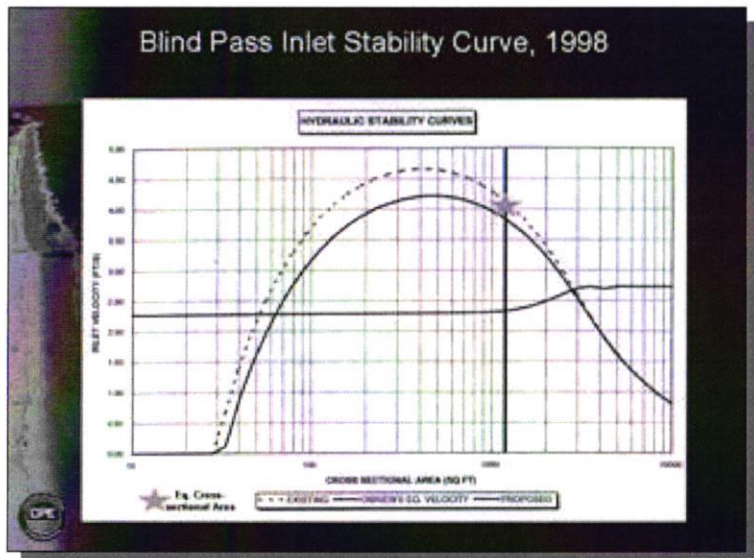


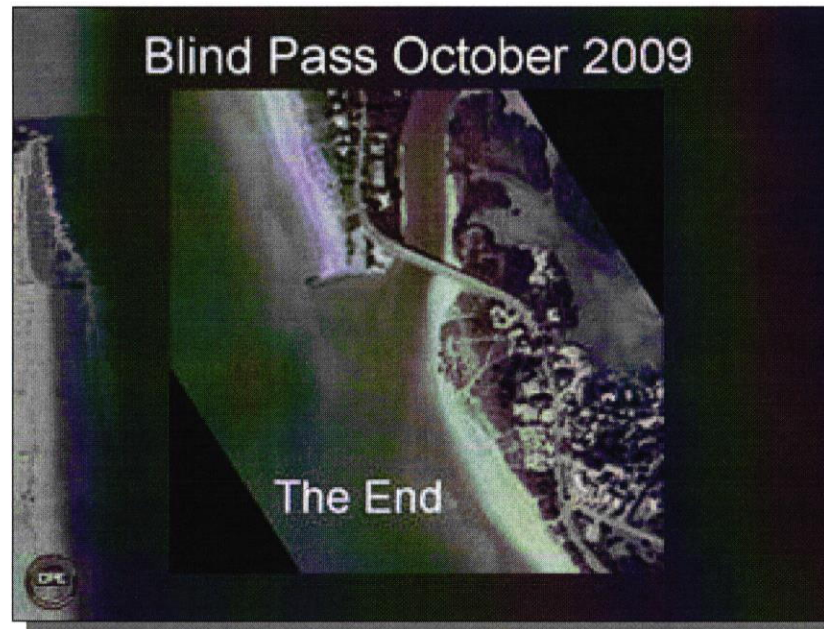
13)

14)

15)

16)





17)

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