

environmental baseline resource survey. A meeting followed on November 1, 2000, with those resource agencies to review preliminary results.

201. Federal agencies involved included the USACE, USCG, EPA, FWS, and NMFS. State agencies include FDEP, FWCC, SHPO, and FDOT. Local agencies include DERM, SFRPC, and the City of Miami. Non-Government Organizations/Institutions include the Biscayne Bay Pilots and Biscayne Bay Regional Coordination Team (Biscayne Bay Partnership Initiative).

CONCLUSIONS

202. Various components received consideration to resolve navigation needs and problems on the existing Federal project. Extensive plan formulation and evaluation was performed in the effort to avoid wherever possible, and minimize impacts to the environment. Refined element design using a ship simulation study and other tools were employed to achieve the minimum project footprint that provided a safe design. The resulting NED plan was determined. The NED plan is the environmentally acceptable plan that maximizes net Federal benefits. However, the Port has requested a Locally Preferred (LP) plan, which is the plan proposed for construction.

203. The total first cost of the LP plan is estimated at \$172,549,000, including mitigation costs. The estimated average annual equivalent benefits and costs are \$14,917,000 and \$12,285,000 respectively. The benefit to cost ratio is 1.21 to 1 with net benefits in the amount of \$2,632,000. The total first cost of the NED plan is estimated at \$162,290,000, including mitigation costs. The estimated average annual equivalent benefits and costs are \$14,862,000 and \$11,430,000 respectively. The benefit to cost ratio is 1.30 to 1, with net benefits in the amount of \$3,432,000.

RECOMMENDATIONS

204. I recommend that the existing project for deep-draft navigation at Miami Harbor be modified to provide for implementation of a Federal project for deeper draft commercial vessels, in accordance with the locally preferred plan selected herein, with such further modifications thereto as in the discretion of the Chief of Engineers, may be advisable; at a first cost to the United States presently estimated at \$172,549,000, including mitigation costs, cost shared in accordance to PGL No. 62, Navigation (Harbors) Cost Sharing Policy Applications, and ER 1105-2-100, Planning Guidance Notebook. Aids to navigation are to be funded by the United States Coast Guard. There are no additional annual operation, maintenance, repair, rehabilitation and replacement costs to the United States government for the implementation of the locally preferred plan.

205. These recommendations are made with the provision that the exact amount of the non-Federal contribution shall be determined in accordance with the following required items of cooperation to which the non-Federal sponsor (Miami Port Authority) shall agree to perform prior to implementation:

- a. Enter into a design agreement which provides, prior to construction, payment of 25 percent of design costs;
- b. Provide, during construction, any additional funds needed to cover the non-Federal share of design costs;
- c. Provide, during the period of construction, a cash contribution equal to 25 percent of the costs of construction of the general navigation features (which include the construction of land-based and aquatic dredged material disposal facilities that are necessary for the disposal of dredged material required for project construction, operation, or maintenance and for which a contract for the facility's construction or improvement was not awarded on or before October 12, 1996) to project increment up to 45 feet; provide during the period of construction, a cash contribution equal to 50 percent of the costs of construction of the general navigation features to project increment above 45 feet, and equal to or below 49 feet (NED plan); and pay 100 percent of the cost of construction of the general navigation features for depths in excess of 49 feet (LP plan).
- d. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the project, up to an additional 10 percent of the total cost of construction of general navigation features up to a depth of 49 feet. The value of lands, easements, rights-of-way, and relocations provided by the non-Federal sponsor for the general navigation features, described below, may be credited toward this required payment. If the amount of credit exceeds 10 percent of the total cost of construction of the general navigation features, the non-Federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of lands, easements, rights-of-way, and relocations in excess of 10 percent of the total cost of construction of the general navigation features;
- e. Provide all lands, easements, and rights-of-way, and perform or ensure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of

the project (including all lands, easements, and rights-of-way, and relocations necessary for dredged material disposal facilities); perform or ensure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, LRR&R – with one-half of the cost of each such relocation borne by the owner of the facility, and one half of the cost of each relocation shall be borne by the non-Federal sponsor.

- f. Provide, operate, maintain, repair, replace, and rehabilitate, at its own expense, the local service facilities; in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government; provide and maintain without cost to the United States depths in berthing areas serving the terminals commensurate with the depths provided on the related to the project identified as the NED plan; these berthing areas are identified as Gantry Crane Berths 99-140.
- g. Accomplish all removals determined necessary by the Federal Government other than those removals specifically assigned to the Federal Government;
- h. Grant the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the general navigation features for the purpose of inspection, and if necessary, for the purpose of operating, maintaining, repairing, replacing, and rehabilitating the general navigation features;
- i. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;
- j. Keep, and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total cost of construction of the general navigation features, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and local governments at 32 CFR, Section 33.20;

- k. Perform, or cause to be performed, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for construction, operation, maintenance, repair, replacement, or rehabilitation of the general navigation features. However, for lands that the Government determines to be subject to navigation servitude, only the Government shall perform such investigation unless the Federal Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;
- l. Assume complete financial responsibility, as between the Federal Government and the non-Federal sponsor, for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features;
- m. To the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;
- n. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987, and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, required for construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features, and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;
- o. Comply with all applicable Federal and State laws and regulations, including but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination of the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of Army"; The Non-Federal Sponsor is also required to comply with all applicable federal labor standards requirements

including, but not limited to the Davis-Bacon Act (40 USC 276a et seq), the Contract Work Hours and Safety Standards Act (40 USC 327 et seq) and the Copeland Anti-Kickback Act (40 USC 276c);

- p. Provide a cash contribution equal to the non-Federal cost share of the project's total historic preservation mitigation and data recovery costs attributable to commercial navigation that are in excess of 1 percent of the total amount authorized to be appropriated for commercial navigation; and
- q. Do not use Federal funds to meet the non-Federal sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute;
- r. Provide and maintain without cost to the United States adequate public terminals, berthing areas, and transfer facilities open to all on equal terms;
- s. Provide and maintain without cost to the United States, operation, maintenance, repair, replacement, and rehabilitation of all mitigation areas for the life of the authorized project as described in the recommended plan.

206. The recommendations contained herein reflect the information available at this time and current Departmental policies governing formulation of individual projects. They do not reflect program and budgeting priorities inherent in the formulation of a national Civil Works construction program nor the perspective of higher review levels within the Executive Branch. Consequently, the recommendations may be modified before proposals are made for authorization and implementation finding. However, prior to transmittal to the Congress, the non-Federal Sponsor, the State, interested Federal agencies, and other parties will be advised of any changes and will be afforded the opportunity to comment further.

James G. May
Colonel, U.S. Army
District Engineer



NOTES:
 1) DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
 2) USACE Survey Number 00-058, March 2000
 3) Beacons, aids to navigation, and soundings are in approximate locations based on NOAA Nautical Charts (number 11468, 36th Ed., July 24 1999, and number 11466, 34th Ed., February 6 1999)
 4) Elevations in feet and refer to mean lower low water
 5) Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6) Background aerial photos taken September 1 1999

LEGEND:

Existing Navigation Channel	Existing Centerline	Existing Channel Edge	Proposed Components
			Cmp1c
			Cmp2a
			Cmp3b
			Cmp5a
			Cmp4
			Cmp6
			Cmp6a

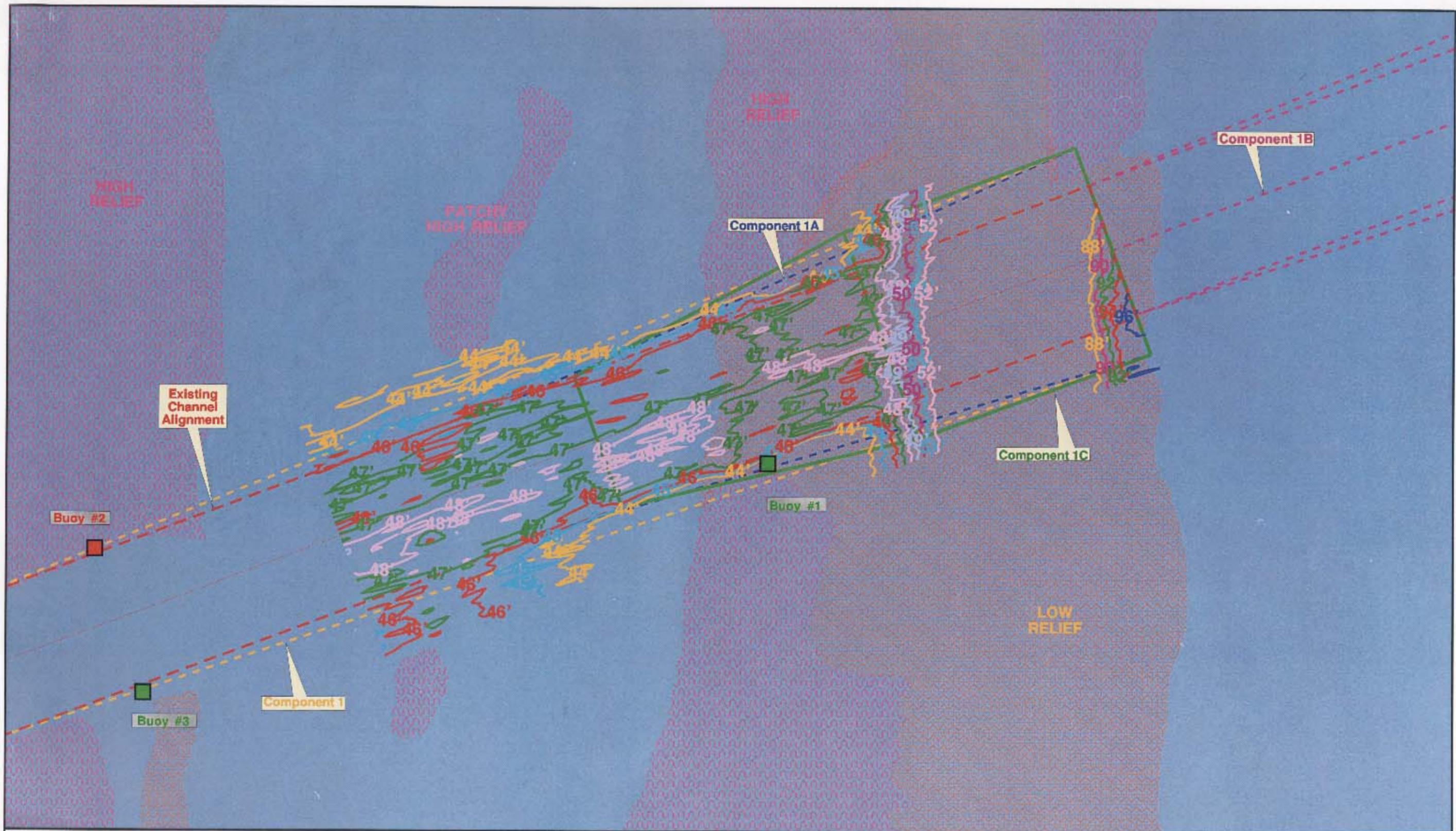
2000 0 2000 4000 6000 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT
 Proposed Navigation
 Channel Modifications**

N

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 Jacksonville District**

Figure 1



NOTES:

- 1] DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
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- 3] Beacons, aids to navigation, and soundings are in approximate locations based on NOAA Nautical Charts (number 11468, 36th Ed., July 24 1999, and number 11466, 34th Ed., February 6 1999)
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- 5] Projection Stateplane Coordinate System, NAD27, Fipszone 0901
- 6] Background aerial photos taken September 1 1999

LEGEND:

Navigation Aids

- Red Buoy ▲ Red Beacon
- Green Buoy ▲ Green Beacon
- ▲ Red/White Beacon

200 0 200 400 600 Feet

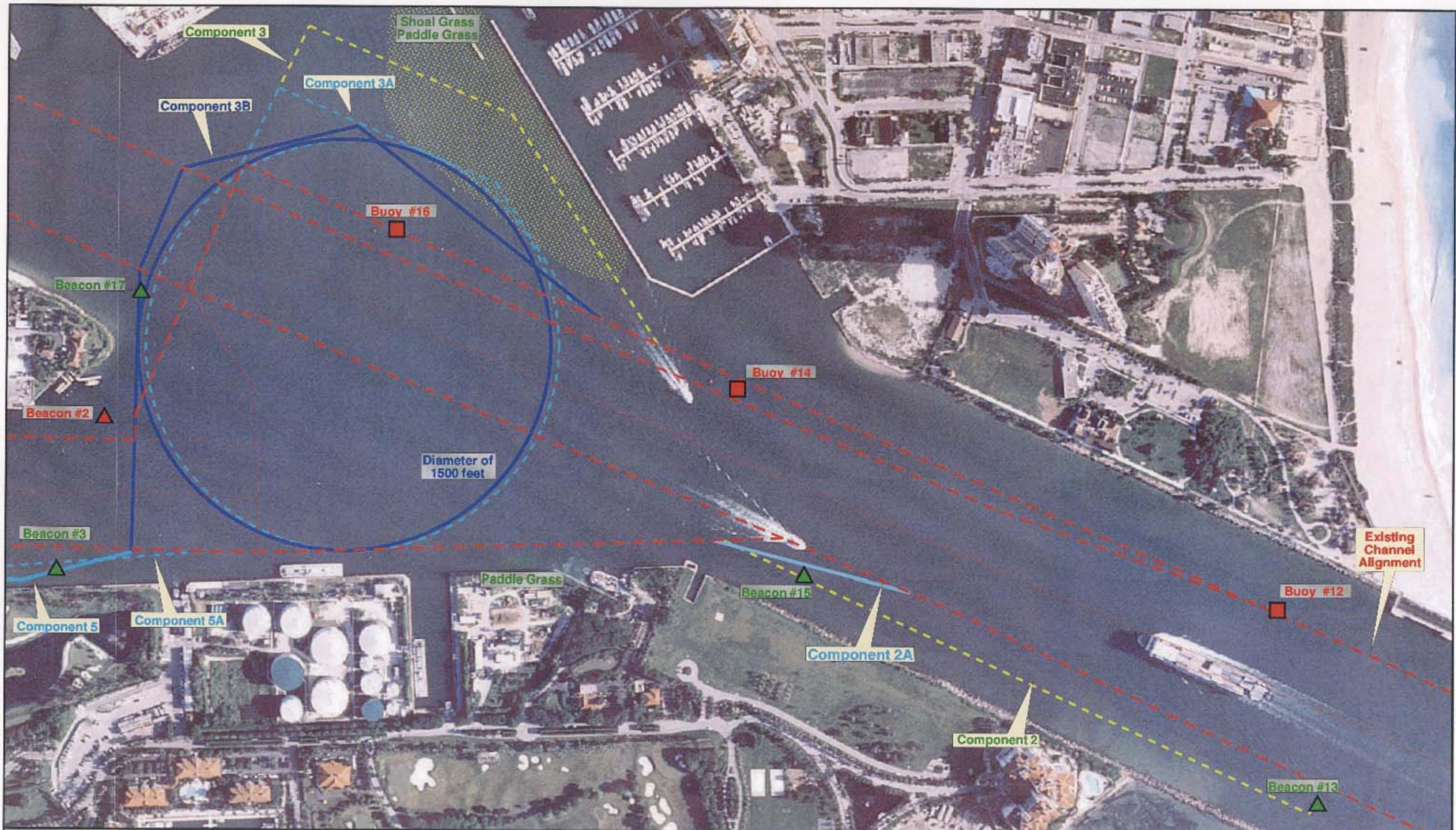


**MIAMI HARBOR
GENERAL REEVALUATION
REPORT
Components 1, 1A 1B, 1C
Entrance Channel Widener**



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Figure 2



NOTES:
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 4] Elevations in feet and refer to mean lower low water
 5] Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6] Background aerial photos taken September 1 1999

LEGEND:
 Navigation Aids

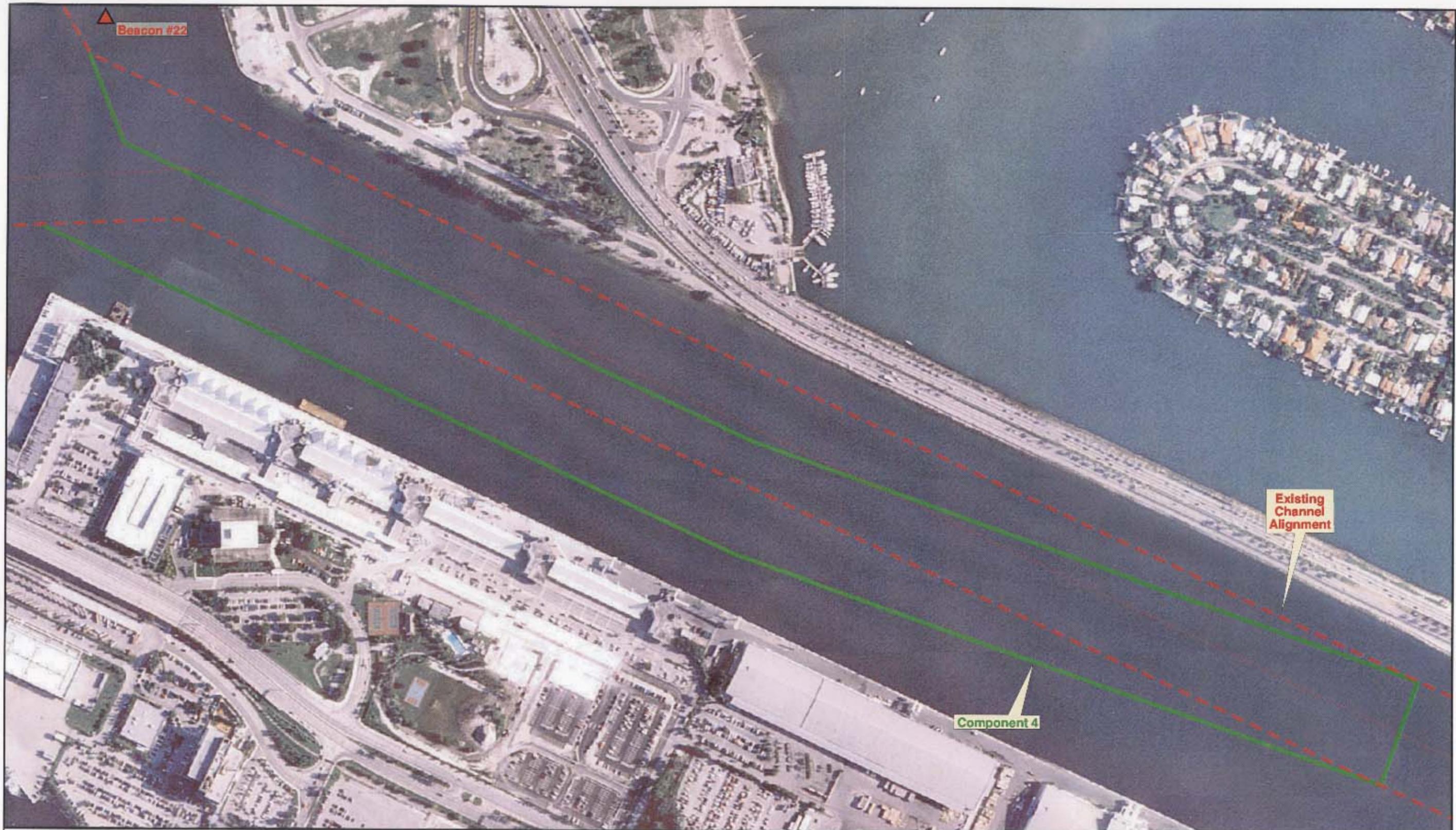
■ Red Buoy	▲ Red Beacon
■ Green Buoy	▲ Green Beacon
	▲ Red/White Beacon

200 0 200 400 600 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT**
 Components 2, 2A Wideners
 Components 3, 3A, 3B
 Turning Basin Modifications



Figure 3



NOTES:

- 1] DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
- 2] USACE Survey Number 00-058, March 2000
- 3] Beacons, aids to navigation, and soundings are in approximate locations based on NOAA Nautical Charts (number 11468, 36th Ed., July 24 1999, and number 11466, 34th Ed., February 6 1999)
- 4] Elevations in feet and refer to mean lower low water
- 5] Projection Stateplane Coordinate System, NAD27, Fipszone 0901
- 6] Background aerial photos taken September 1 1999

LEGEND:
Navigation Aids

- Red Buoy
- ▲ Red Beacon
- Green Buoy
- ▲ Green Beacon
-
- ▲ Red/White Beacon

200 0 200 400 600 Feet

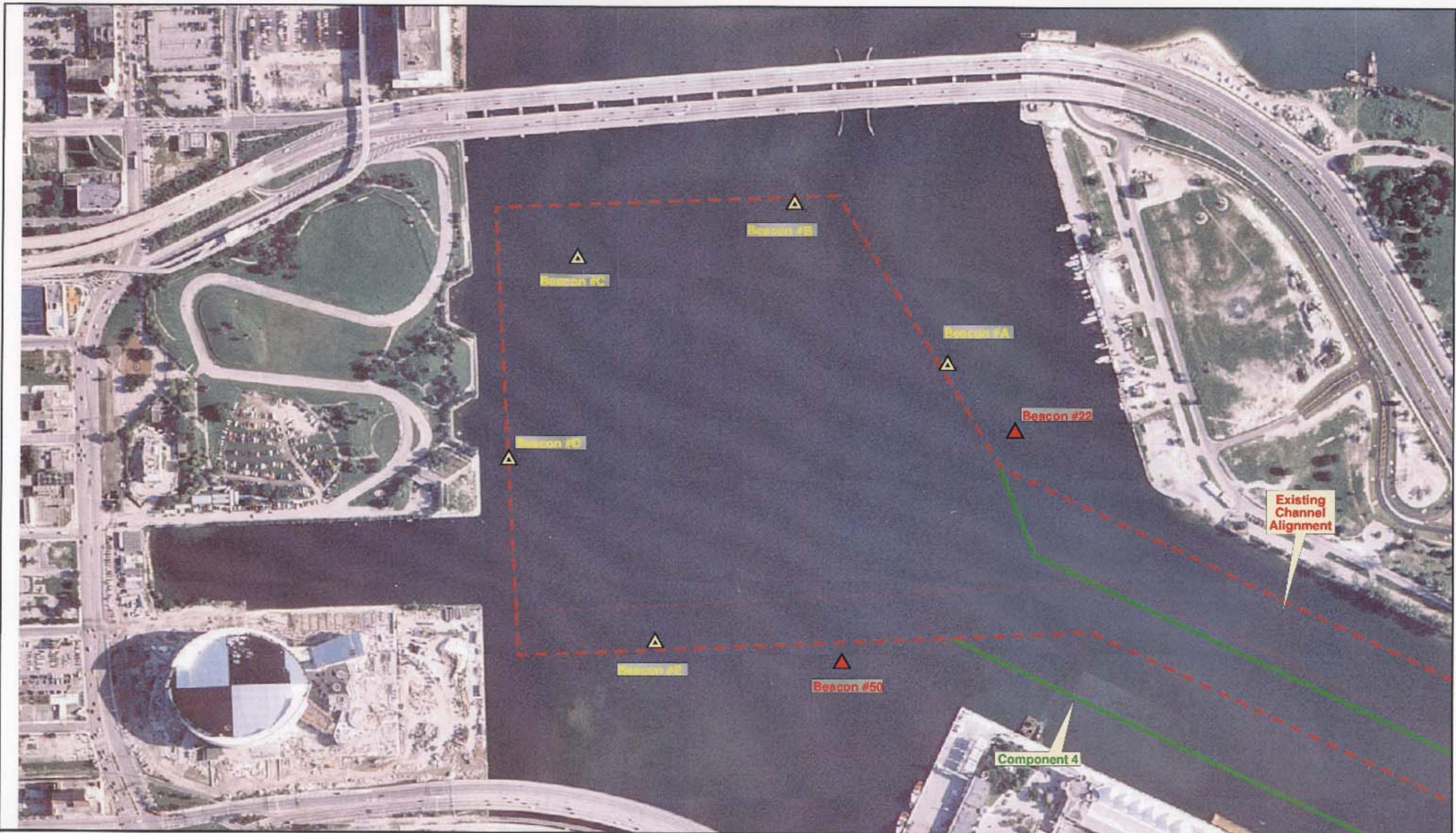


**MIAMI HARBOR
GENERAL REEVALUATION
REPORT
Component 4
(Sheet 1 of 2)
Channel Relocation**



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Figure 4



NOTES:
 1) DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
 2) USACE Survey Number 00-058, March 2000
 3) Beacons, aids to navigation, and soundings are in approximate locations based on NOAA Nautical Charts (number 11468, 38th Ed., July 24 1999, and number 11466, 34th Ed., February 6 1999)
 4) Elevations in feet and refer to mean lower low water
 5) Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6) Background aerial photos taken September 1 1999

LEGEND:
 Navigation Aids

■ Red Buoy	▲ Red Beacon
■ Green Buoy	▲ Green Beacon
	▲ Red/White Beacon

200 0 200 400 600 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT
 Component 4
 (Sheet 2 of 2)
 Channel Relocation**

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Figure 5



NOTES:
 1] DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
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 4] Elevations in feet and refer to mean lower low water
 5] Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6] Background aerial photos taken September 1 1999

LEGEND:
 Navigation Aids

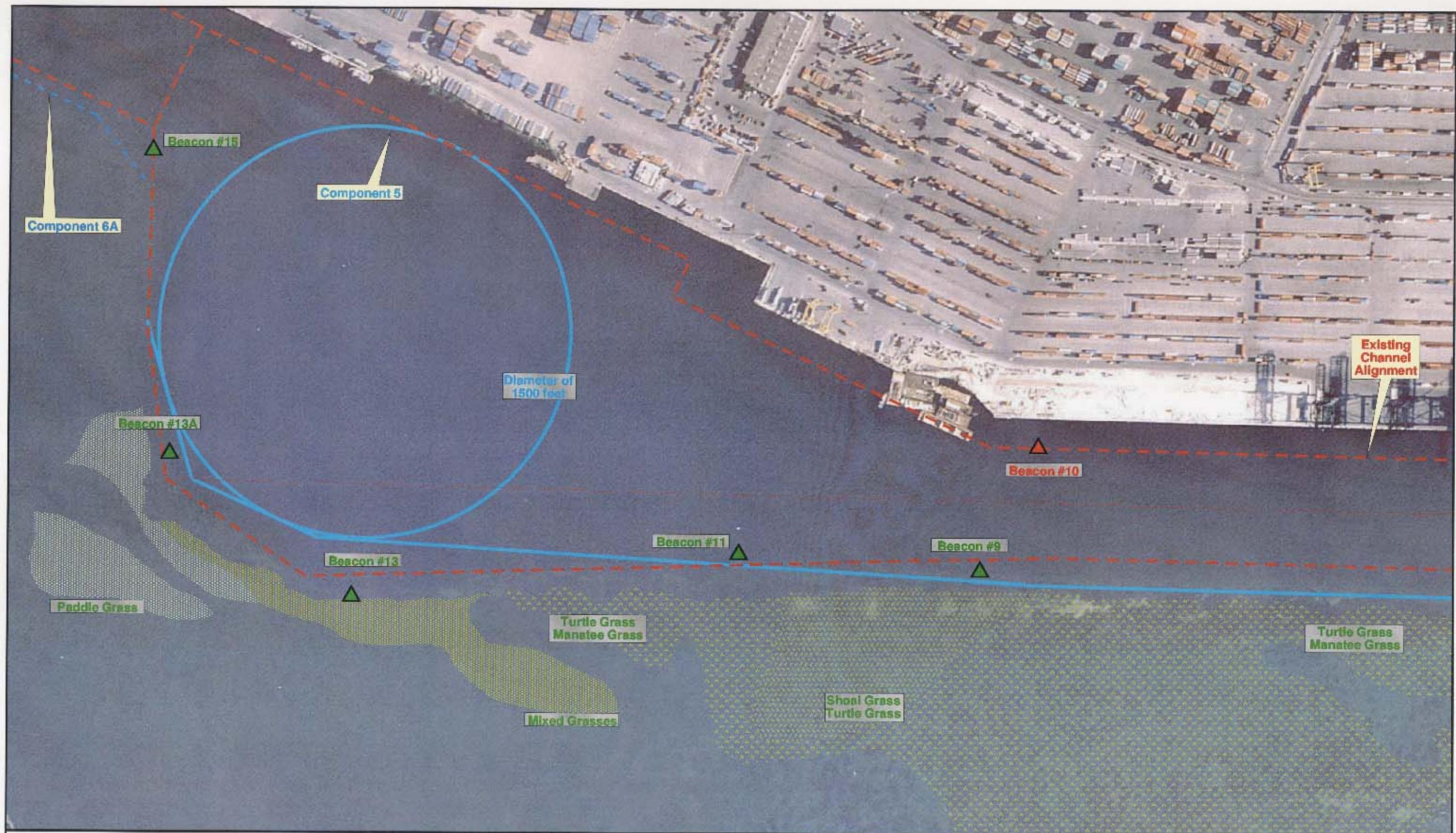
■ Red Buoy	▲ Red Beacon
■ Green Buoy	▲ Green Beacon
	▲ Red/White Beacon

200 0 200 400 600 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT
 Components 5 and 5A
 (Sheet 1 of 2)
 Widener**

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Figure 6



NOTES:
 1] DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
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 4] Elevations in feet and refer to mean lower low water
 5] Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6] Background aerial photos taken September 1 1999

LEGEND:
Navigation Aids

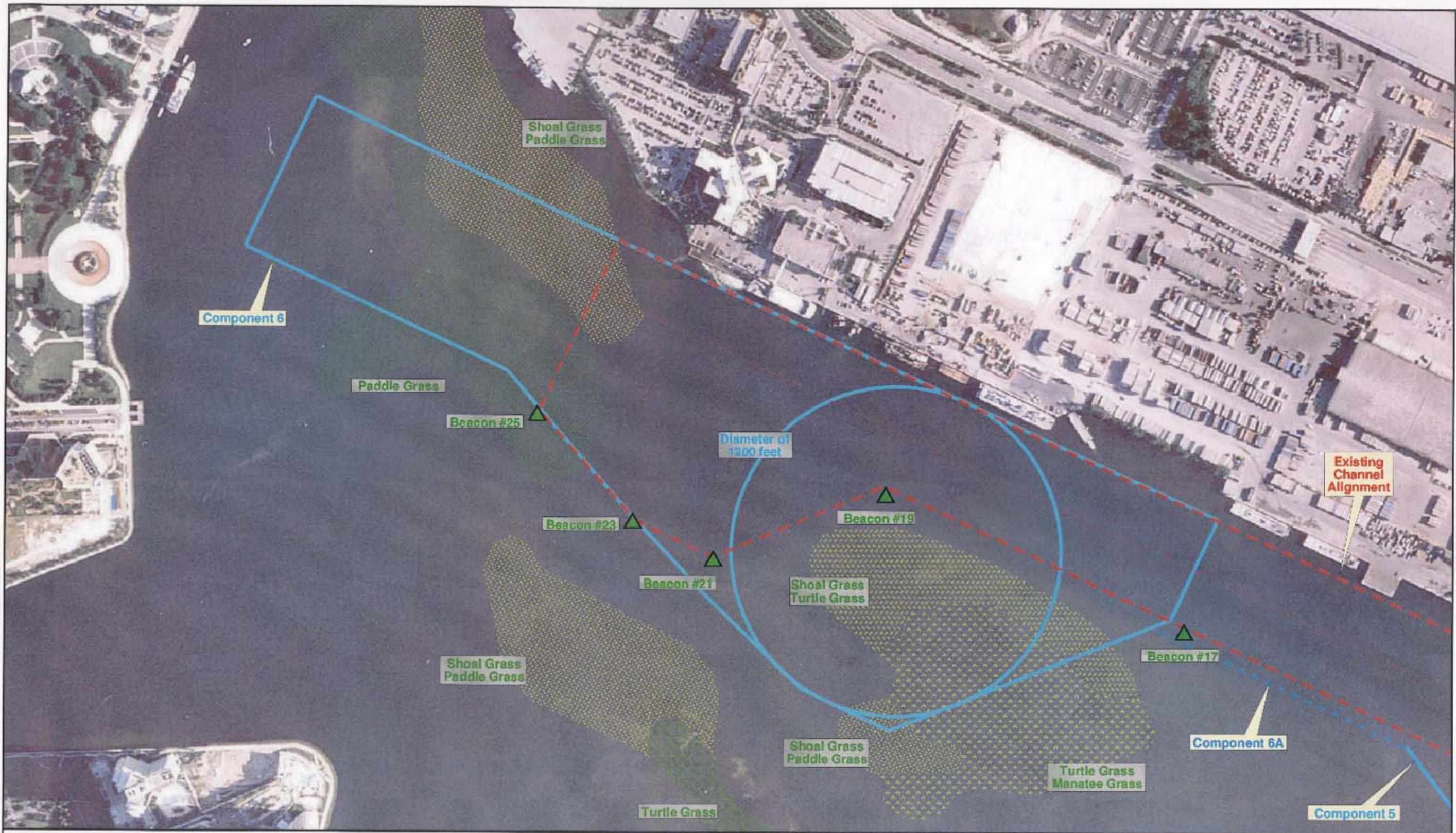
■ Red Buoy	▲ Red Beacon
■ Green Buoy	▲ Green Beacon
	▲ Red/White Beacon

200 0 200 400 600 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT
 Component 5
 (Sheet 2 of 2)
 Widener**



Figure 7



NOTES:
 1) DRAFT Environmental Baseline Resource Survey (underwater features) provided February 2001, by Dial Cordy & Associates, Jacksonville Beach, FL
 2) USA CE Survey Number 00-058, March 2000
 3) Beacons, aids to navigation, and soundings are in approximate locations based on NOAA Nautical Charts (number 11468, 36th Ed., July 24 1999, and number 11466, 34th Ed., February 6 1999)
 4) Elevations in feet and refer to mean lower low water
 5) Projection Stateplane Coordinate System, NAD27, Fipszone 0901
 6) Background aerial photos taken September 1 1999

LEGEND:
Navigation Aids

■ Red Buoy	▲ Red Beacon
■ Green Buoy	▲ Green Beacon
	▲ Red/White Beacon

200 0 200 400 600 Feet

**MIAMI HARBOR
 GENERAL REEVALUATION
 REPORT**
**Components 6 and 6A
 Channel Extension and Turning Basin
 Dodge Island**

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 Jacksonville District**

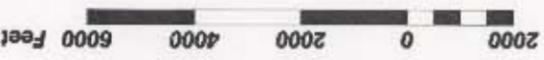
Figure 8

Figure 9

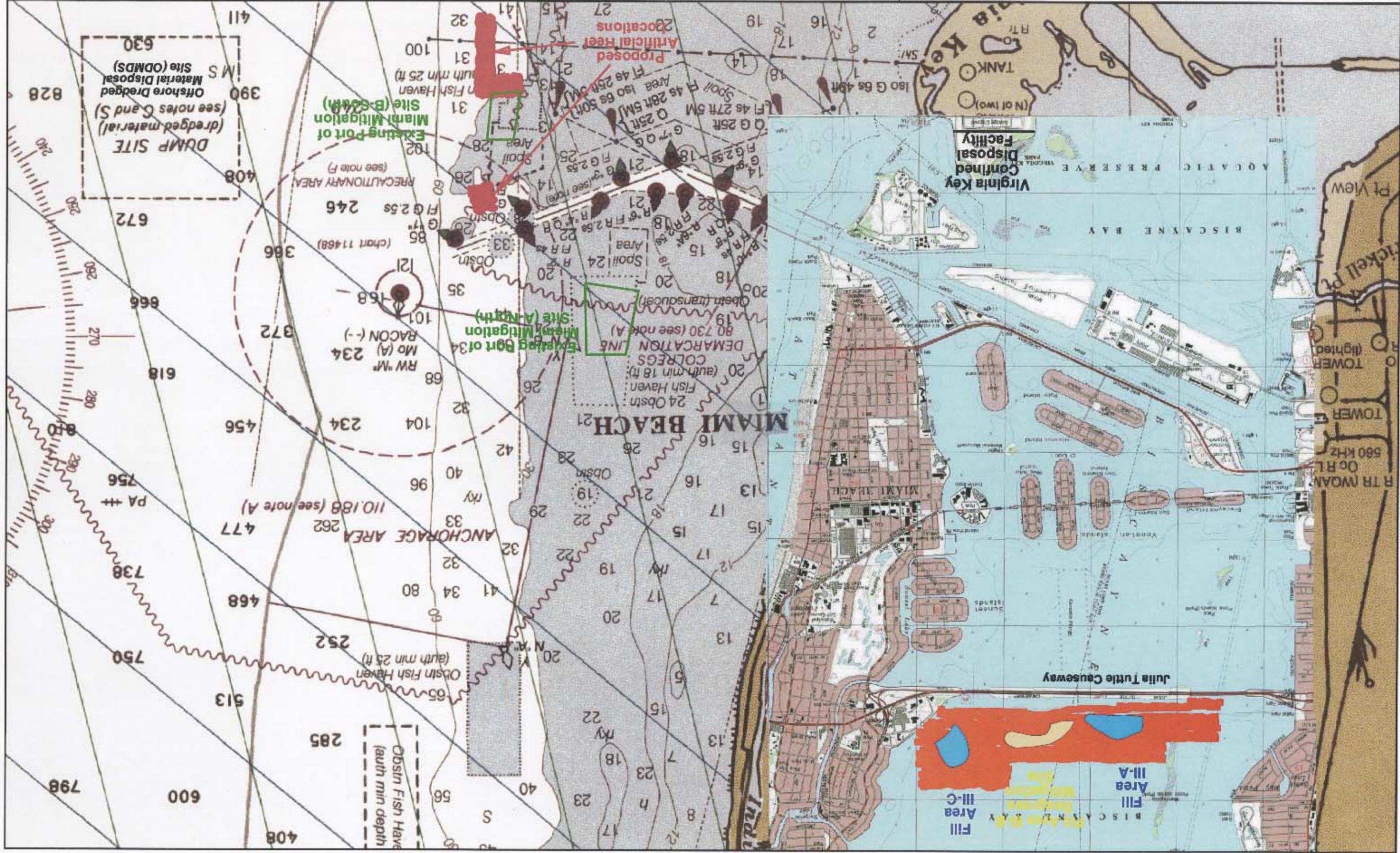
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Jacksonville District



PROPOSED DREDGED MATERIAL DISPOSAL SITES AND MITIGATION LOCATIONS



NOTES:
[1] Background images combined NOAA navigational charts 1466, 35th Ed., dated June 2000 and 1469, 38th Ed., dated March 2001.
[2] Soundings in feet at mean lower low water.
[3] Projection Universal Transverse Mercator (UTM), NAD27, units meters, zone 17.



DUMP SITE
(dredged material)
(see notes C and S)
Offshore Dredged Material Disposal Site (ODMS)
530
390
828
411
408
672
366
666
270
618
756
PA ++
477
110.188 (see note A)
456
234
372
366
672
246
FG 2.55
(chart 11468)
85
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168
101
RW "M" Mo (A) 234
RACON (-)
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LEGEND:

Existing Navigation Channel	Proposed Components	Cmp1c	Cmp4	Cmp6
Existing Centerline	Cmp2a	Cmp5	Cmp6a	
Existing Channel Edge	Cmp3b	Cmp5a		

2000 0 2000 4000 6000 Feet

**MIAMI HARBOR
GENERAL REEVALUATION
REPORT
Selected Plan
Channel Modifications**



Figure 10