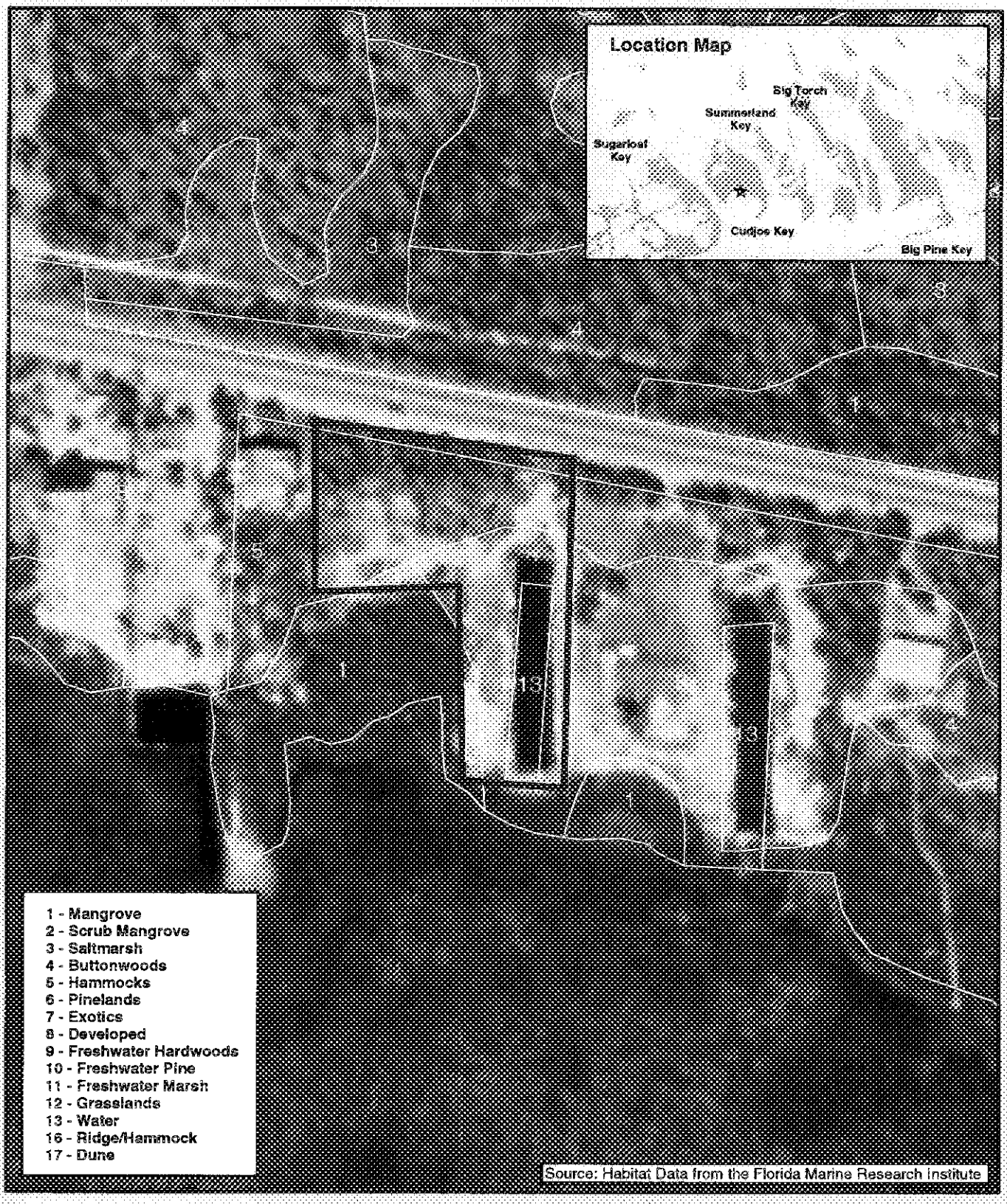

Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Cudjoe Key Canal Restoration

Figure 7.6.10

100 50 0 100 Feet

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10. Spain Boulevard Culverts and Fill Removal, Cudjoe Key

Project Location: Spain Boulevard is a county-maintained road and the main access road for a subdivision located on northern Cudjoe Key. It intersects with Balloon Road is approximately 1 mile north of U.S. 1 (see Figure 7.6-1).

Proposed Mitigation: The road is a fill peninsula that has essentially severed the tidal connection between the mangrove/open water wetlands lying north and south of the road. The mangrove wetland located north of the road shows signs of hyper-saline conditions as evidenced by dead and dying mangroves. Additional culverts could be placed beneath Spain Boulevard to enhance tidal flushing in the impounded mangrove wetland lying north of the road. Additionally, finger fills located along Spain Boulevard could be removed to restore salt marsh wetlands (see Figure 7.6-11).

Project Benefits: Approximately 0.38 acres of salt marsh/mangrove wetland restoration.

Approximately 23 acres of mangrove wetland enhancement through the placement of culverts to enhance tidal flushing to decrease hyper-saline conditions.

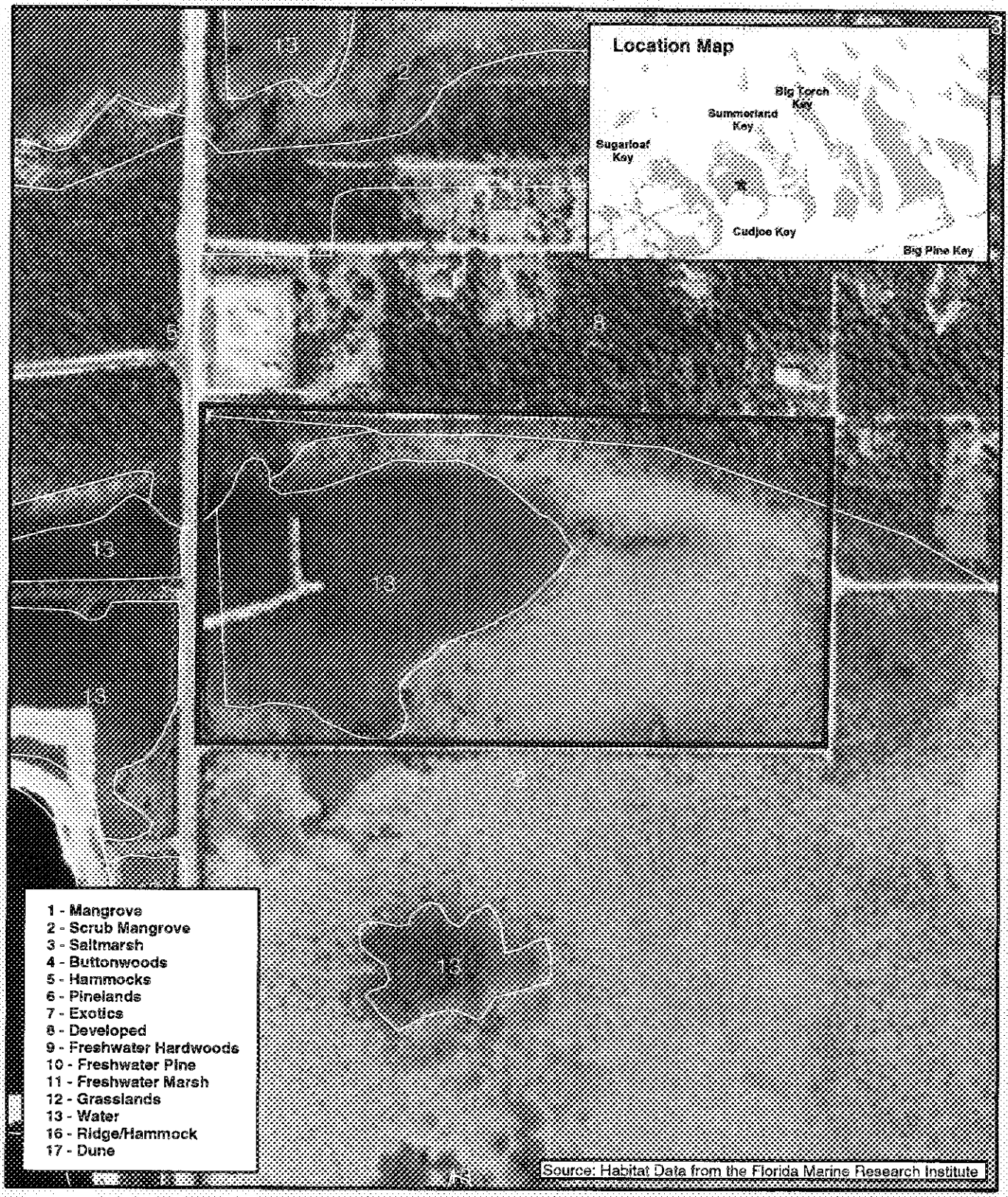
Project Constraints: None.

Project Cost:

Probable Land Acquisition Cost: N/A

Probable Mitigation Construction Cost: $62,100

Total Project Cost: $62,100



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Spain Boulevard Culvert and Fill Removal

Figure 7.6.11

200 100 0 200 Feet

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11. Key Deer Refuge Dredge Hole Restoration, Cudjoe Key

Project Location: This area is located on the northeastern shore of Cudjoe Key on property owned by the Key Deer Refuge. The site is accessed off of Balloon Road and is located approximately 2 mile north of U.S. 1 between Mile Markers 21 and 22 (see Figure 7.6-1).

A dredge hole on the site (see Figure 7.6-12) could be restored by placing adjacent spoil material back into the dredge hole to restore mangrove/salt marsh wetland grade. This project was recommended by Key Deer Refuge staff.

Project Benefits: Approximately 0.79 acres of salt marsh/mangrove wetland restoration and approximately 0.50 acres of salt marsh/mangrove wetland enhancement. Area is under public ownership and would not require acquisition.

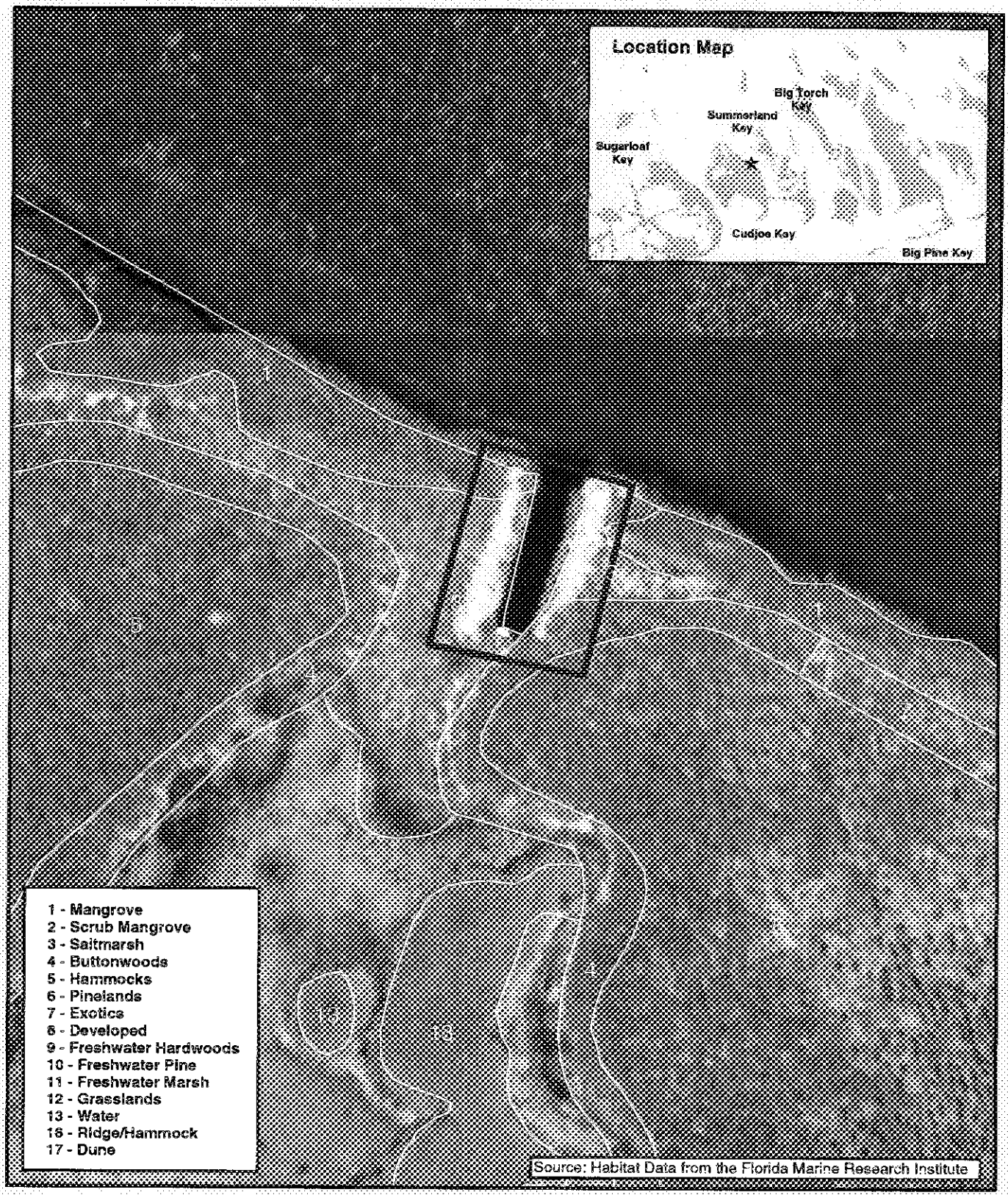
Project Constraints: Access to site is over poorly maintained road. Additional fill material may be needed to complete the restoration if on-site spoil material is inadequate.

Project Cost:

Probable Land Acquisition Cost: N/A

Probable Mitigation Construction Cost: $86,800

Total Project Cost: $86,800



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Key Deer Refuge Dredge Hole Restoration

Figure 7.6.12

150 75 0 150 Feet

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12. Finger Fill Removal, Middle Torch Key

Project Location: This project is located along Dorn Road on the fill peninsula between Middle and Big Torch Keys (see Figure 7.6-1).

Proposed Mitigation: A 450-linear-foot finger fill road (see Figure 7.6-13) could be removed and the area restored back to salt marsh wetlands. It appears that the fill road is located on state-owned submerged lands; however, ownership of the road has not been verified.

Project Benefits: Approximately 0.31 acres of salt marsh/open water restoration.

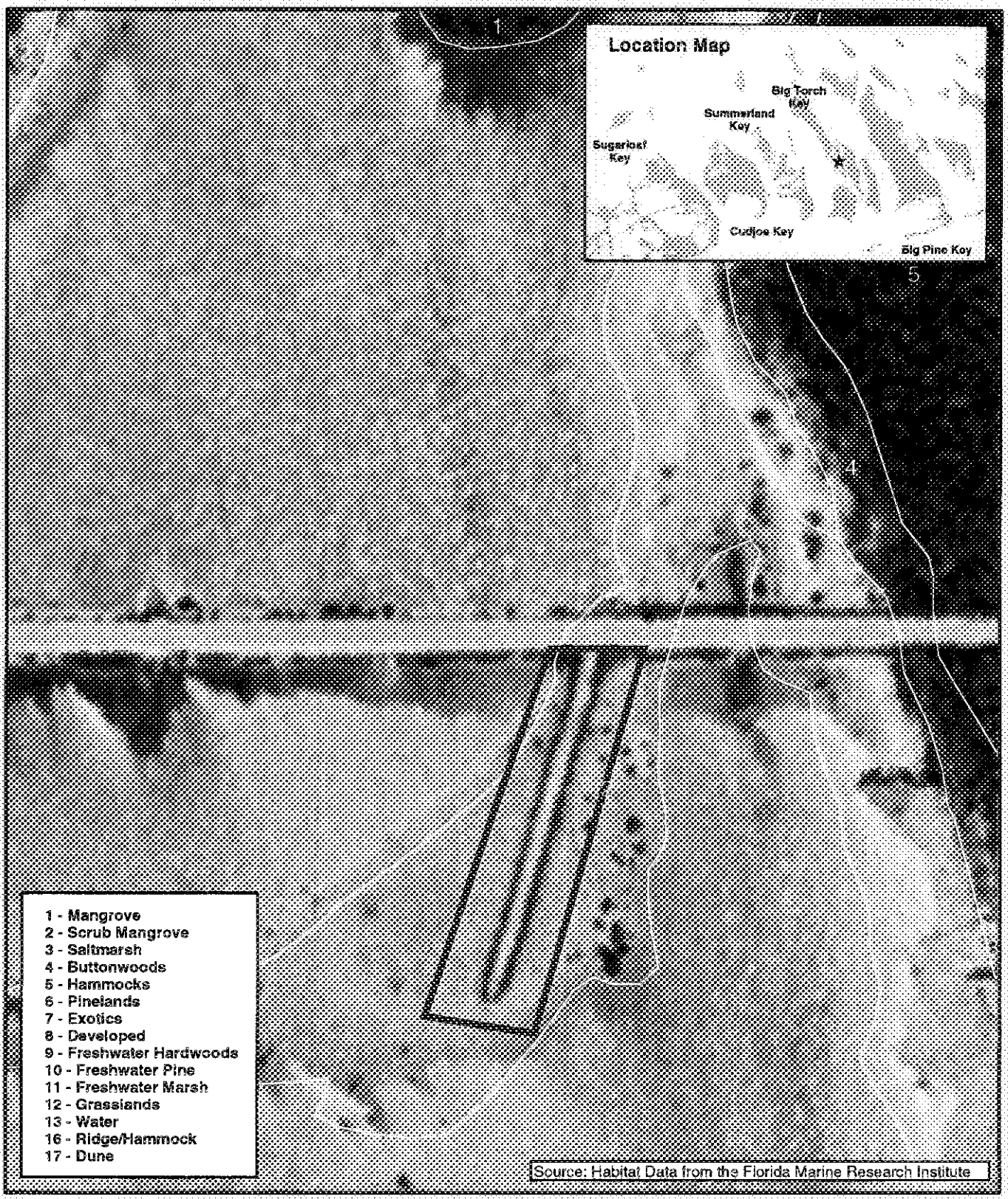
Project Constraints: Possible private ownership of the road.

Project Cost:

Probable Land Acquisition Cost: N/A (if land and road are publicly owned)

Probable Mitigation Construction Cost: $24,600

Total Project Cost: $24,600



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Finger Fill Removal

Figure 7.6.13

100 50 0 100 Feet

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13. Habitat for Humanity Site Restoration, Middle Torch Key

Project Location: This project site is located off of Pieces of Eight Road approximately 2 miles north of U.S. 1 at Mile Marker 28 (see Figure 7.6-1).

Proposed Mitigation: A property located on Middle Torch Key was acquired by Habitat for Humanity to construct affordable housing. However, the site may not be appropriate for development because of its previous use as a dump site. The site could be restored back to salt marsh/mangrove wetlands if the area can be cleared of dumped material and graded to original contours. (see Figure 7.6-14).

Project Benefits: Approximately 5.2 acres of salt marsh/mangrove wetland creation and enhancement.

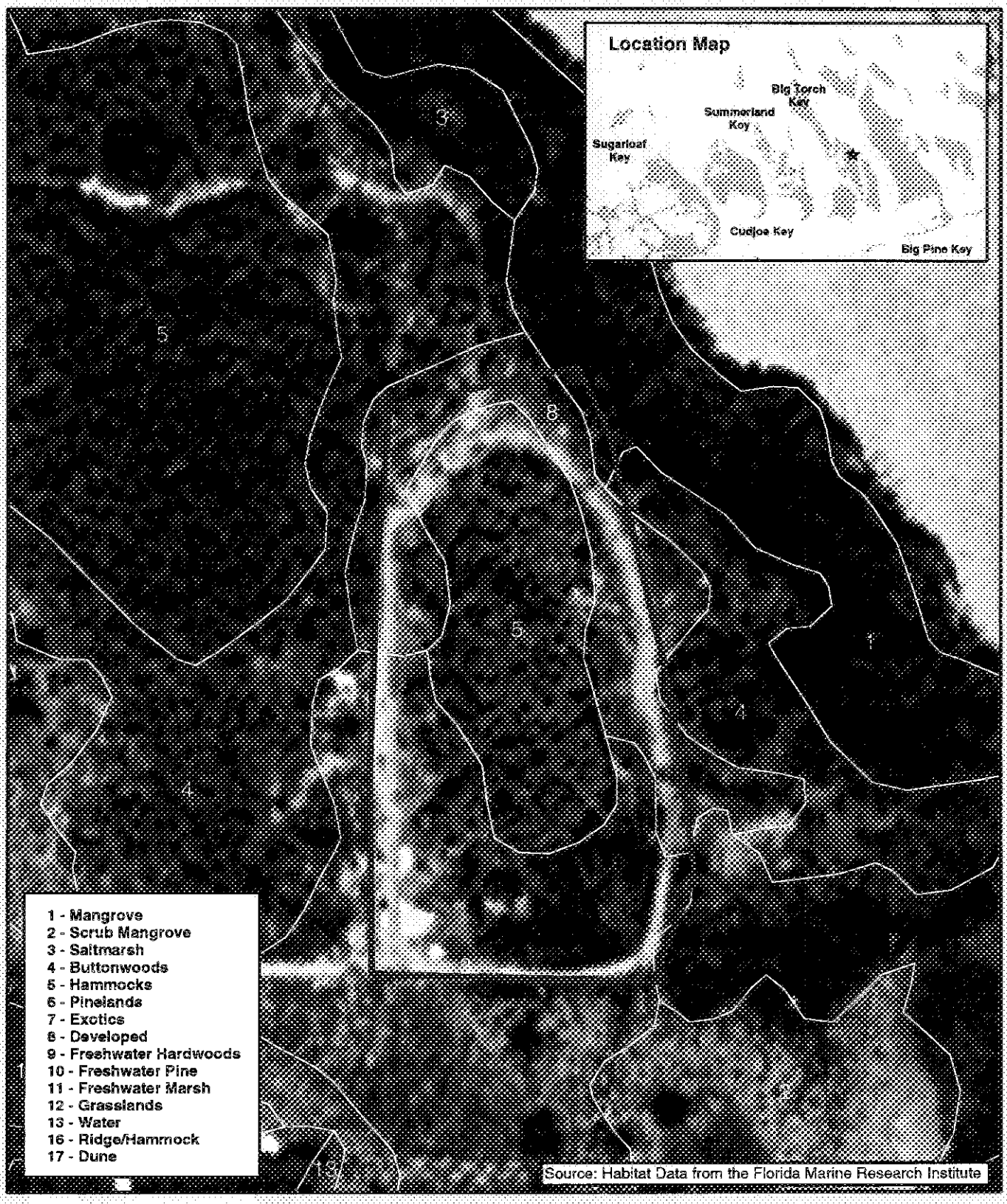
Project Constraints: It is unknown what materials have been dumped at this site. Additional site reviews and assessments would be required to determine potential environmental concerns and liabilities associated with this site. Potential cost associated with dump clean up prior to wetland creation may preclude use of this site.

Project Cost:

Probable Land Acquisition Cost: $143,700

Probable Mitigation Construction Cost: $491,300 (Does not include potential clean-up and remediation.)

Total Project Cost: $635,000



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Habitat For Humanity Site Restoration

Figure 7.6.14

100 50 0 100 Feet

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14. Western Big Pine Dredge Hole Restoration, Big Pine Key

Project Location: This project is located on the far western shoreline of Big Pine Key on both side of U.S. 1 near Mile Marker 29 (see Figure 7.6-1).

Proposed Mitigation: A 0.50-acre dredge hole located on Key Deer Refuge property (see Figure 7.6-15) could be restored back to salt marsh/mangrove wetlands. Additionally there appears to be an opportunity to scrape down 2.4 acres of disturbed uplands belonging to the Refuge on both sides of U.S. 1 to create mangrove/salt marsh wetlands. The Key Deer Refuge staff recommends this project. Some additional upland property may be available for conversion directly adjacent to the dredge hole however public ownership would need to be verified.

Project Benefits: Approximately 2.4 acres of salt marsh/mangrove wetland creation and approximately 0.50 acres of wetland enhancement. Area is under public ownership and would not require acquisition.

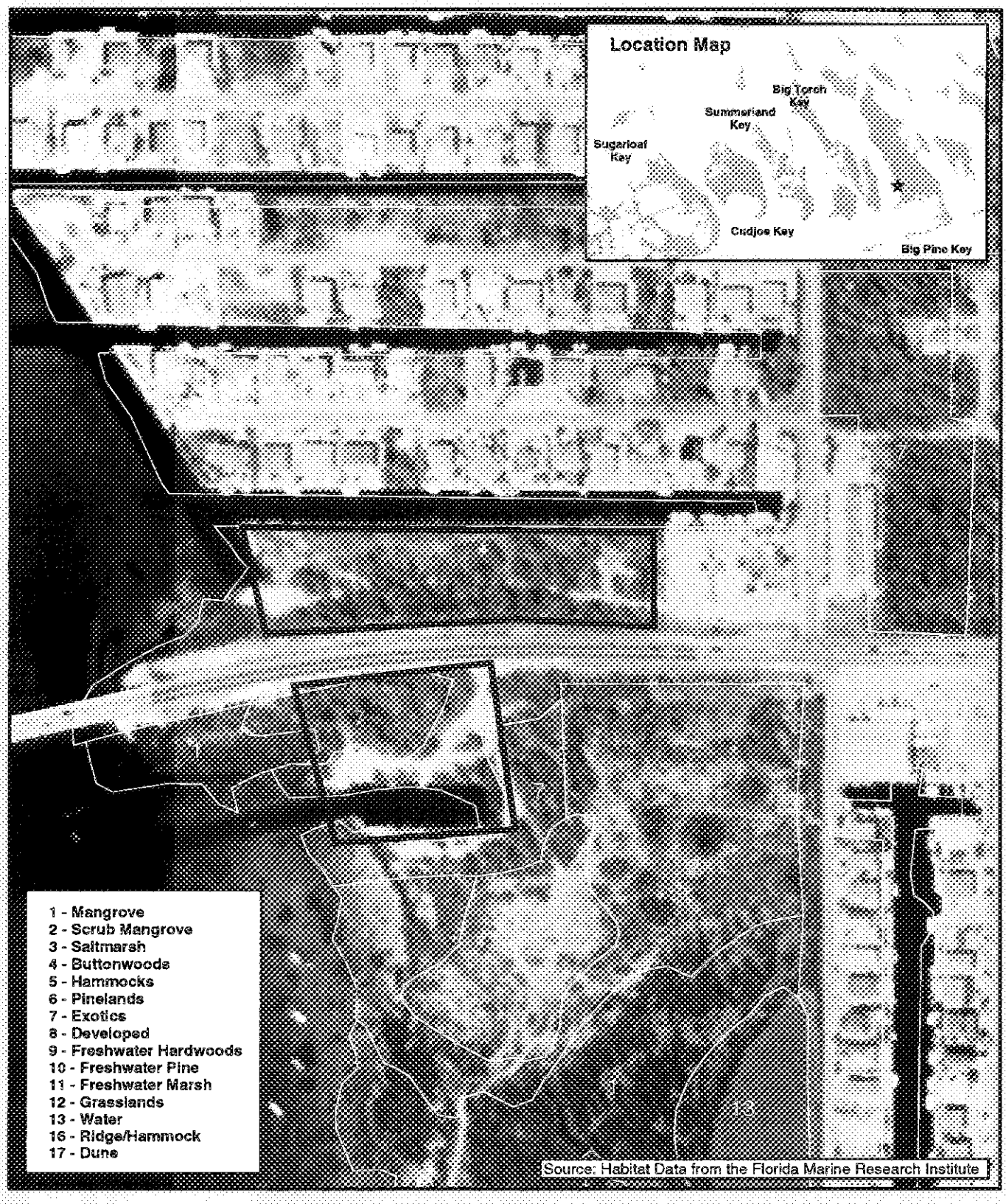
Project Constraints: This area is used by live-aboard boaters to access Big Pine Key; however, the refuge wants to discourage this use.

Project Cost:

Probable Land Acquisition Cost: N/A

Probable Mitigation Construction Cost: $283,200

Total Project Cost: $283,200



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Western Big Pine Dredge Hole Restoration

Figure 7.6.15

150 75 0 150 Feet

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15. Key Deer Refuge Limestone Pit Restoration, Big Pine Key

Project Location: This borrow pit is located to the west of U.S. 1 on the southeast side of Big Pine Key at Mile Marker 32 (see Figure 7.6-1).

Proposed Mitigation: The borrow pit, which is located on Key Deer Refuge property, could be restored back to salt marsh/mangrove wetlands (see Figure 7.6-16). The northern end of the pit would be available to scrape down to create salt marsh/mangrove wetlands. This project was recommended by Key Deer Refuge staff.

Project Benefits: Approximately 3.8 acres salt marsh/mangrove wetland restoration. The area is under public ownership and would not require acquisition.

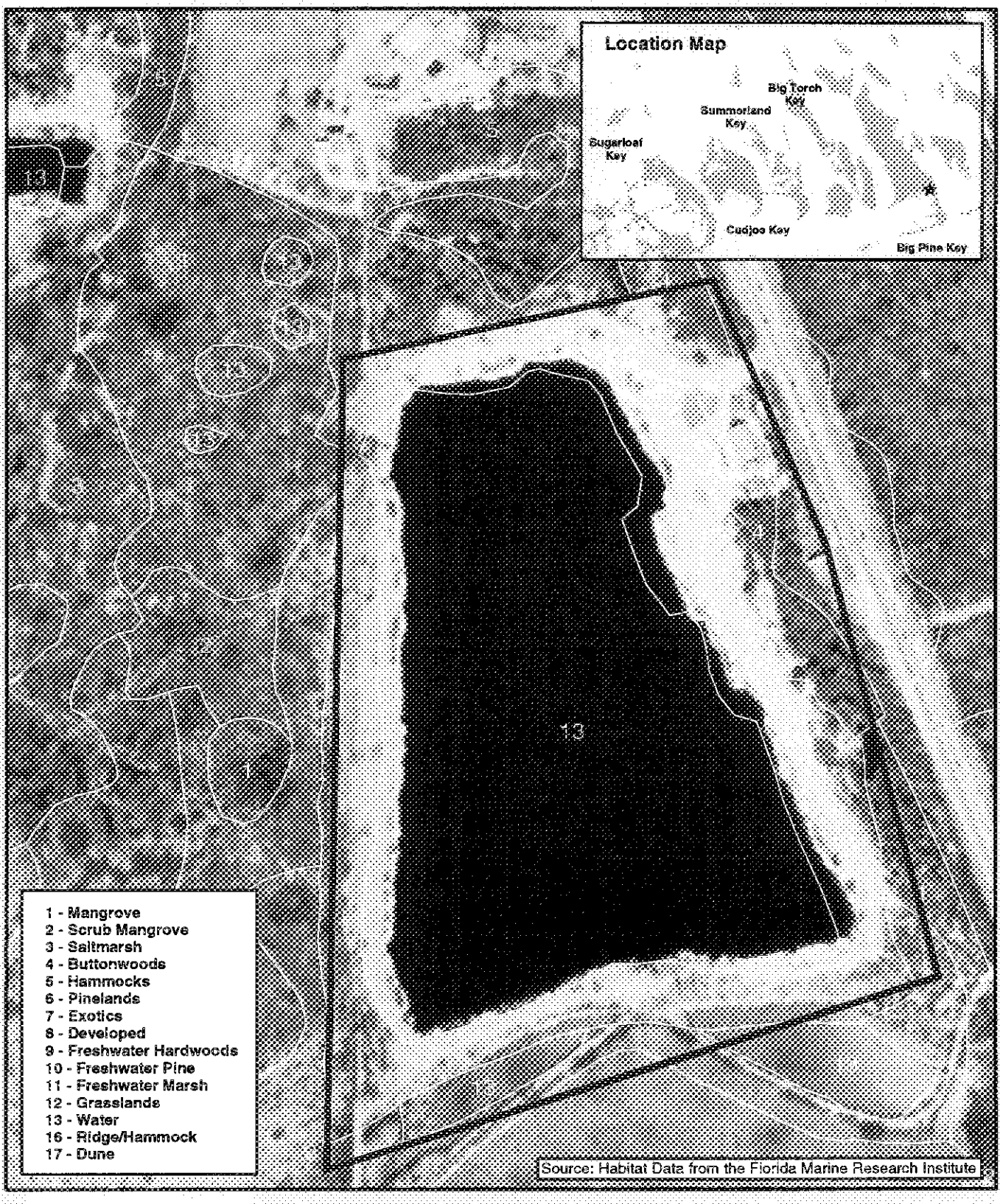
Project Constraints: None.

Project Cost:

Probable Land Acquisition Cost: N/A

Probable Mitigation Construction Cost: $264,900

Total Project Cost: $264,900



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Key Deer Refuge Limestone Pit Restoration

Figure 7.6.16

150 75 0 150 Feet

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16. No Name Key Limestone Pit Restoration, No Name Key

Project Location: This limerock mine is located on the northwest portion of No Name Key to the west of Spanish Channel Drive (see Figure 7.6-1).

Proposed Mitigation: Portions of an existing limerock mine (see Figure 7.6-17) could be restored back to salt marsh/mangrove wetlands by scraping down existing pit edges to wetland grade. Additionally, disturbed wetlands adjacent to the mine could be enhanced by removing a rock sill to increasing tidal flushing. This property is privately owned and currently offered on the market for sale.

Project Benefits: Approximately 4.3 acres of salt marsh/mangrove wetland restoration

Approximately 5.3 acres of salt marsh/mangrove wetland enhancement

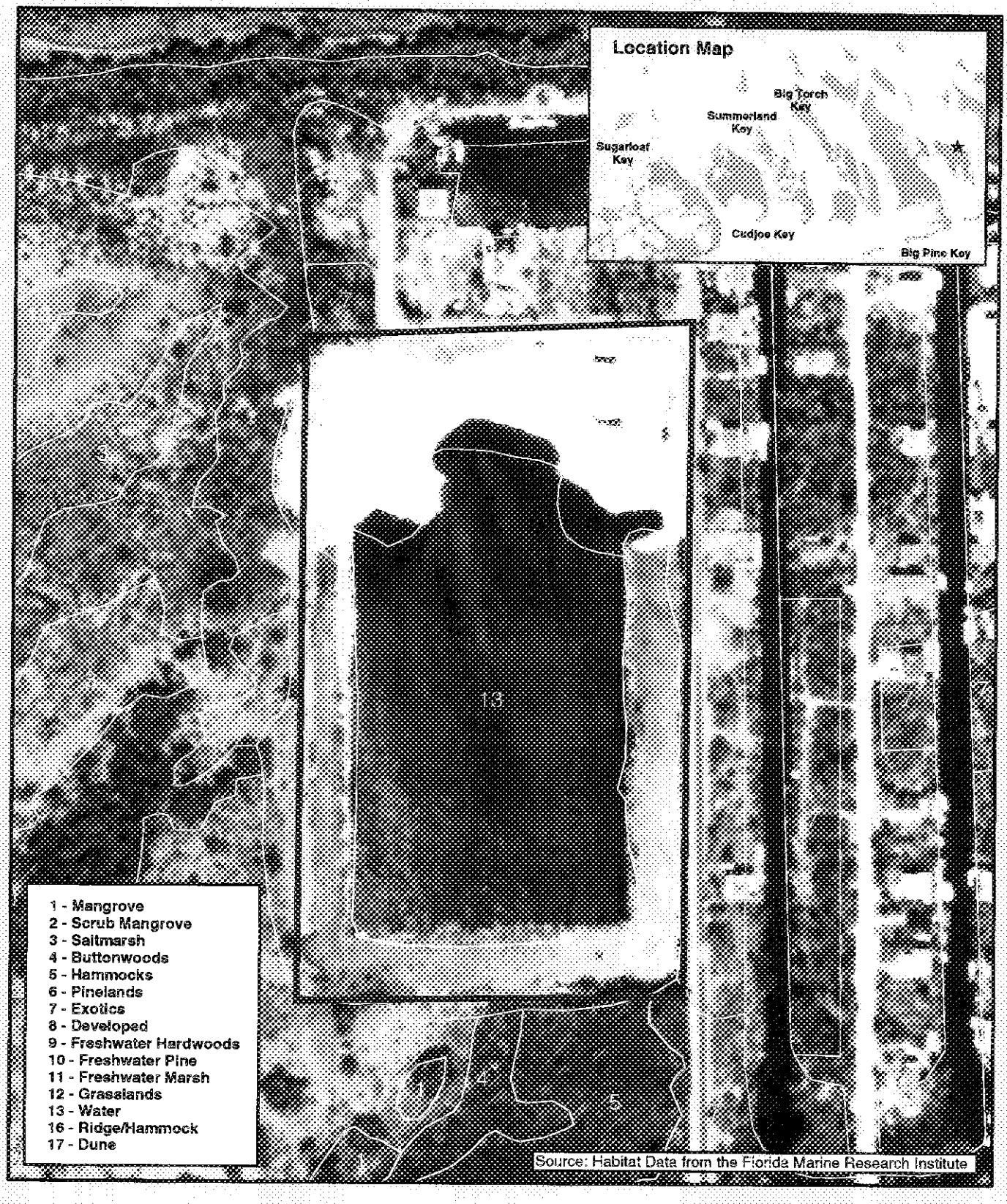
Project Constraints: Area is under private ownership and would require acquisition.

Project Cost:

Probable Land Acquisition Cost: $159,300

Probable Mitigation Construction Cost: $425,800

Total Project Cost: $585,100



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

No Name Key Limestone Pit Restoration

Figure 7.6.17

150 75 0 150 Feet

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17. Ohio Key Mangrove Restoration, Ohio Key

Project Location: This project is located adjacent to and south of U.S. 1 at Mile Marker 39 on Ohio Key (see Figure 7.6-1).

Proposed Mitigation: 4.1 acres of filled mangrove wetlands located on Key Deer Refuge property could be scraped down to wetland grade and restored to mangrove swamp (see Figure 7.6-18). This area is also currently infested with nuisance vegetation species that could spread to other adjacent areas. This project was recommended by Key Deer Refuge staff.

Project Benefits: 4.1 acres of mangrove swamp restoration. The site is located on public property and would not require acquisition.

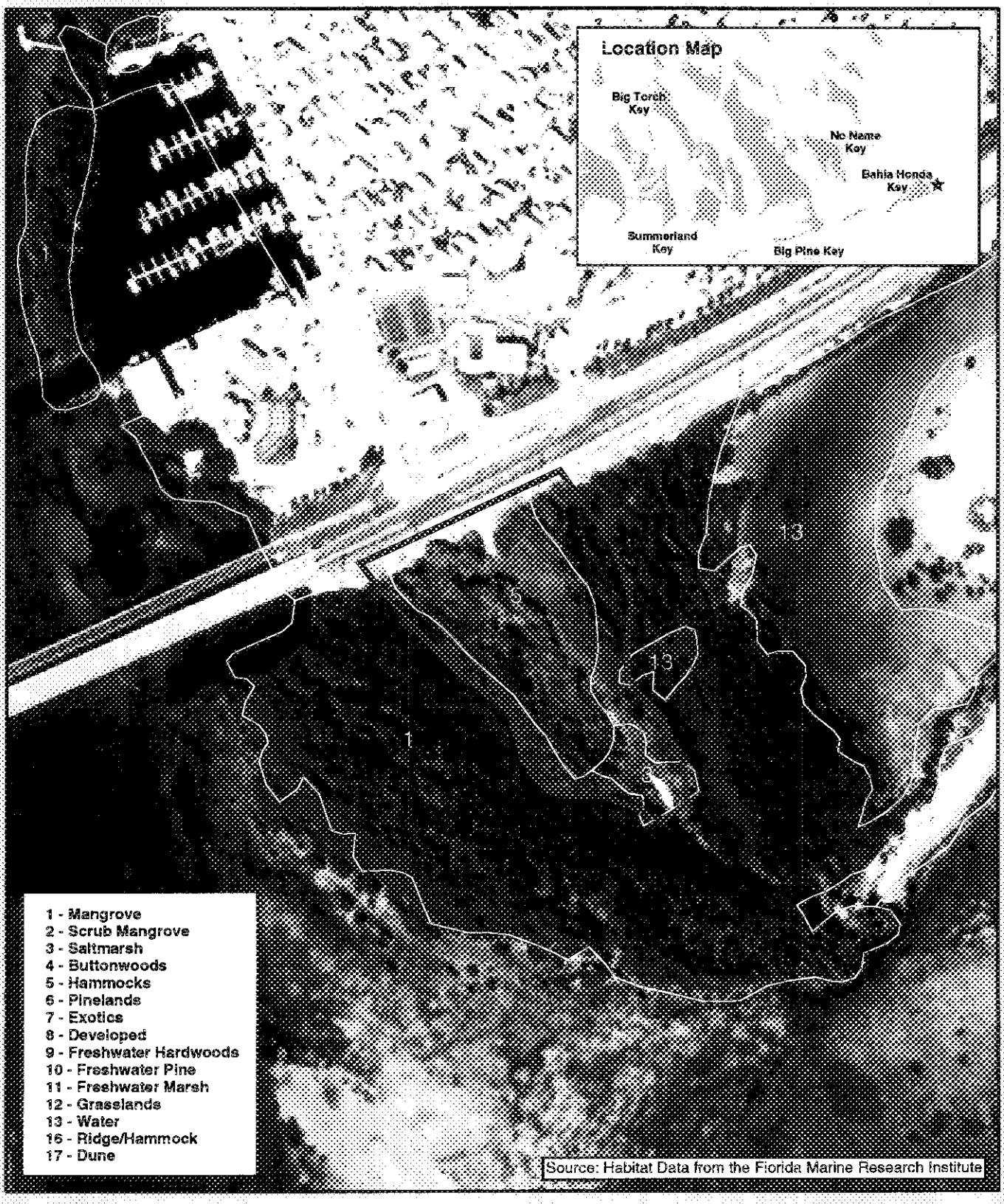
Project Constraints: None.

Project Cost:

Probable Land Acquisition Cost: N/A

Probable Mitigation Construction Cost: $407,800

Total Project Cost: $407,800



Proposed Mitigation Area

Habitat Boundary

Key West International Airport
RSA Improvements

Ohio Key Mangrove Restoration

Figure 7.6.18

150 75 0 150 Feet

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18. Nature View Property Restoration

Project Location: The property is located adjacent to KWIA, approximately one-quarter mile east of the runway. The property fronts Roosevelt Boulevard (see Figure 7.6.19).

Proposed Mitigation: The 8.8 acre site has approximately 1.5 acres of uplands that appear to be former mangrove wetlands. The fill material would be removed from the site and the area restored to a mangrove dominated wetland.

Project Benefits: Restoration of approximately 1.5 acres of mangrove wetlands within the salt pond habitat.

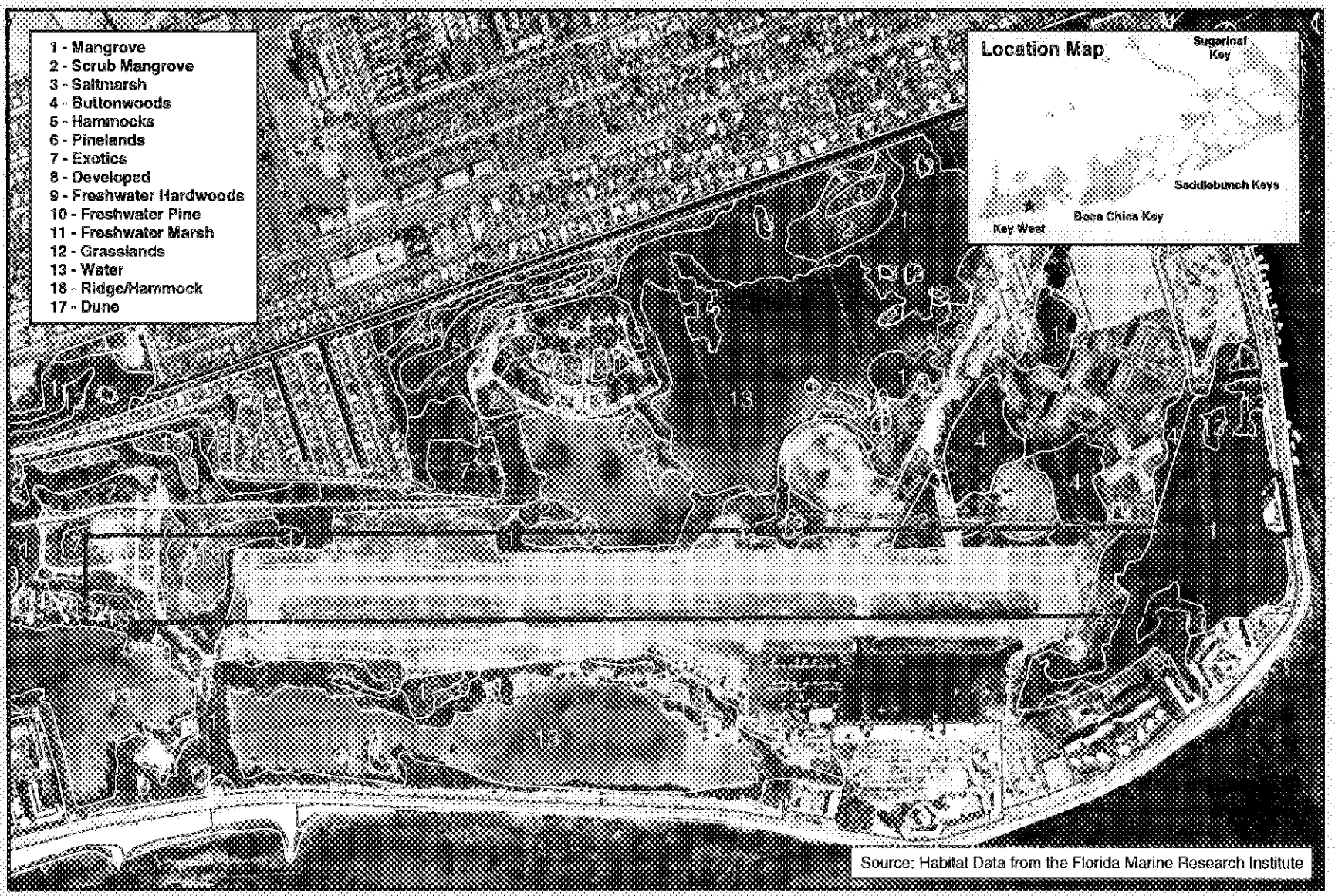
Project Constraints: The property is under private ownership and would have to be acquired.

Project Cost:

Probable Land Acquisition Cost: $285,300

Probable Mitigation Construction Cost: $136,100

Total Project Cost: $421,400



Required Runway Safety Area
Proposed Project Boundary
Habitat Boundary
Property Lines

Key West International Airport
RSA Improvements

Nature View Property Restoration

Figure 7.6.19

500 250 0 500 Feet

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8.0 MITIGATION OPPORTUNITY ANALYSIS