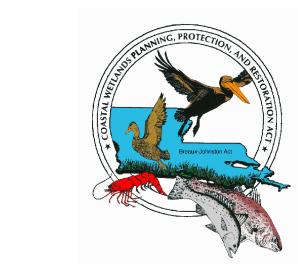
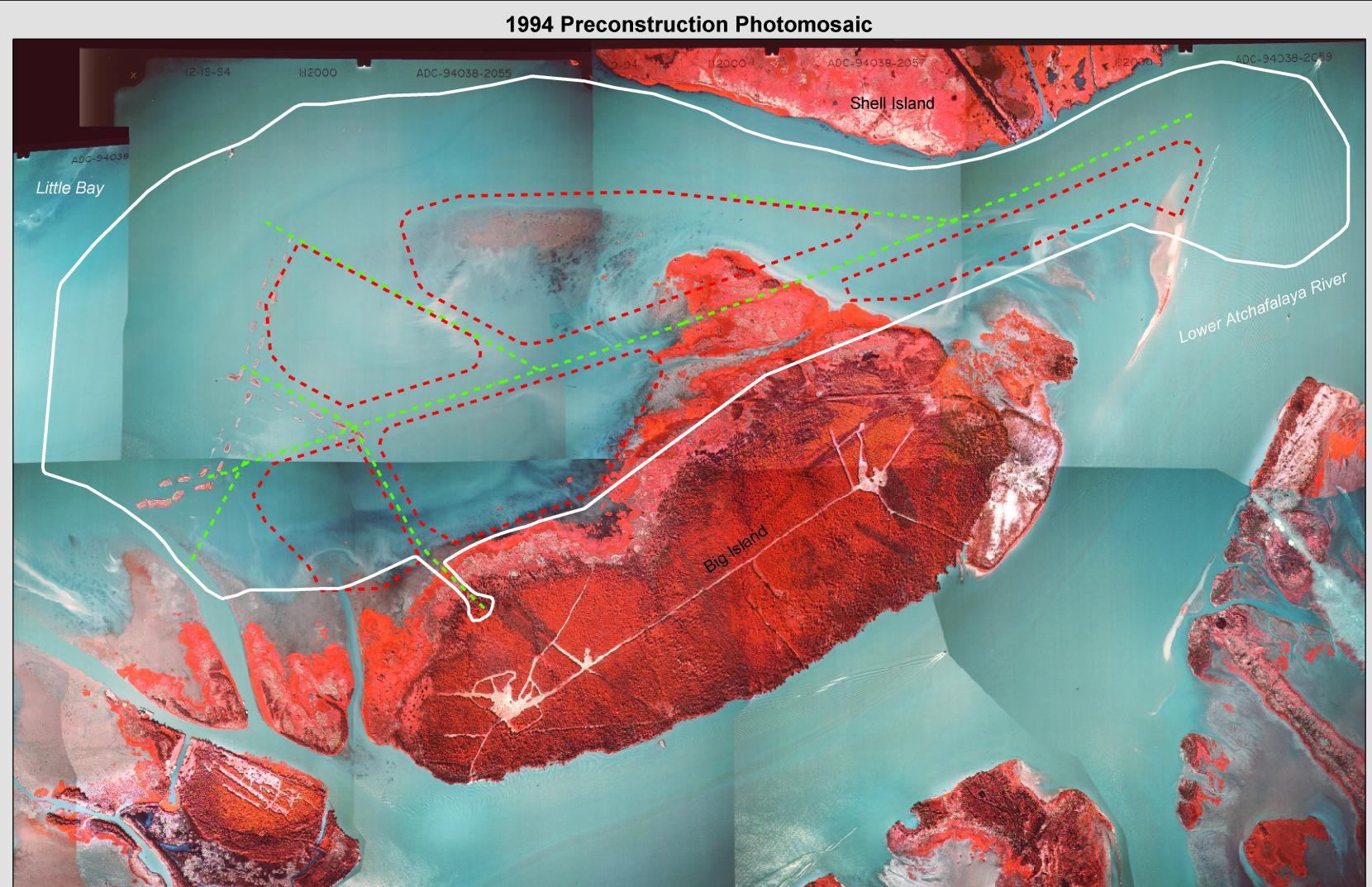


Big Island Mining (AT- 03) Coastal Wetlands Planning, Protection and Restoration Act 1994, 1997, 1998, and 2000 GIS Habitat Analyses



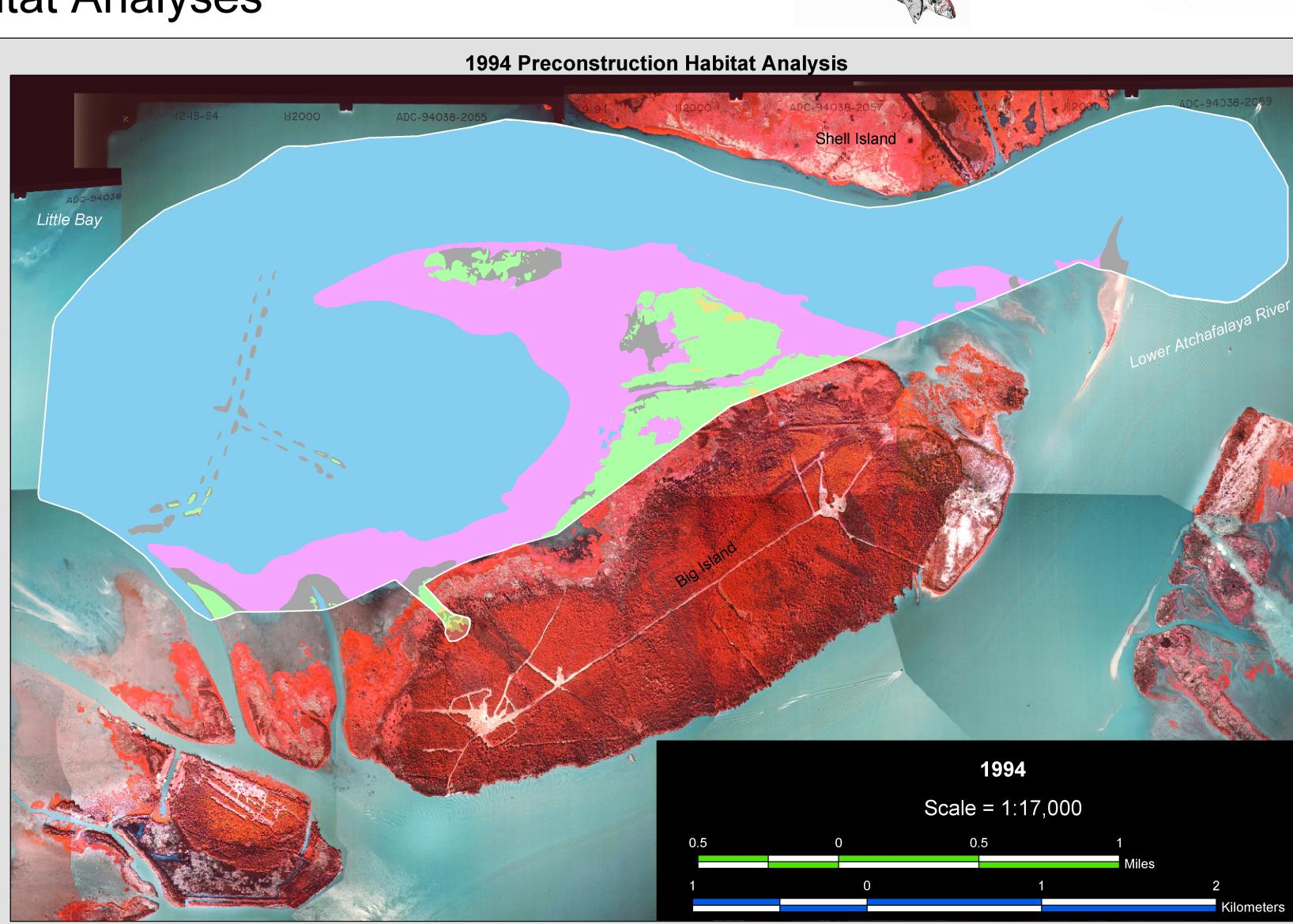


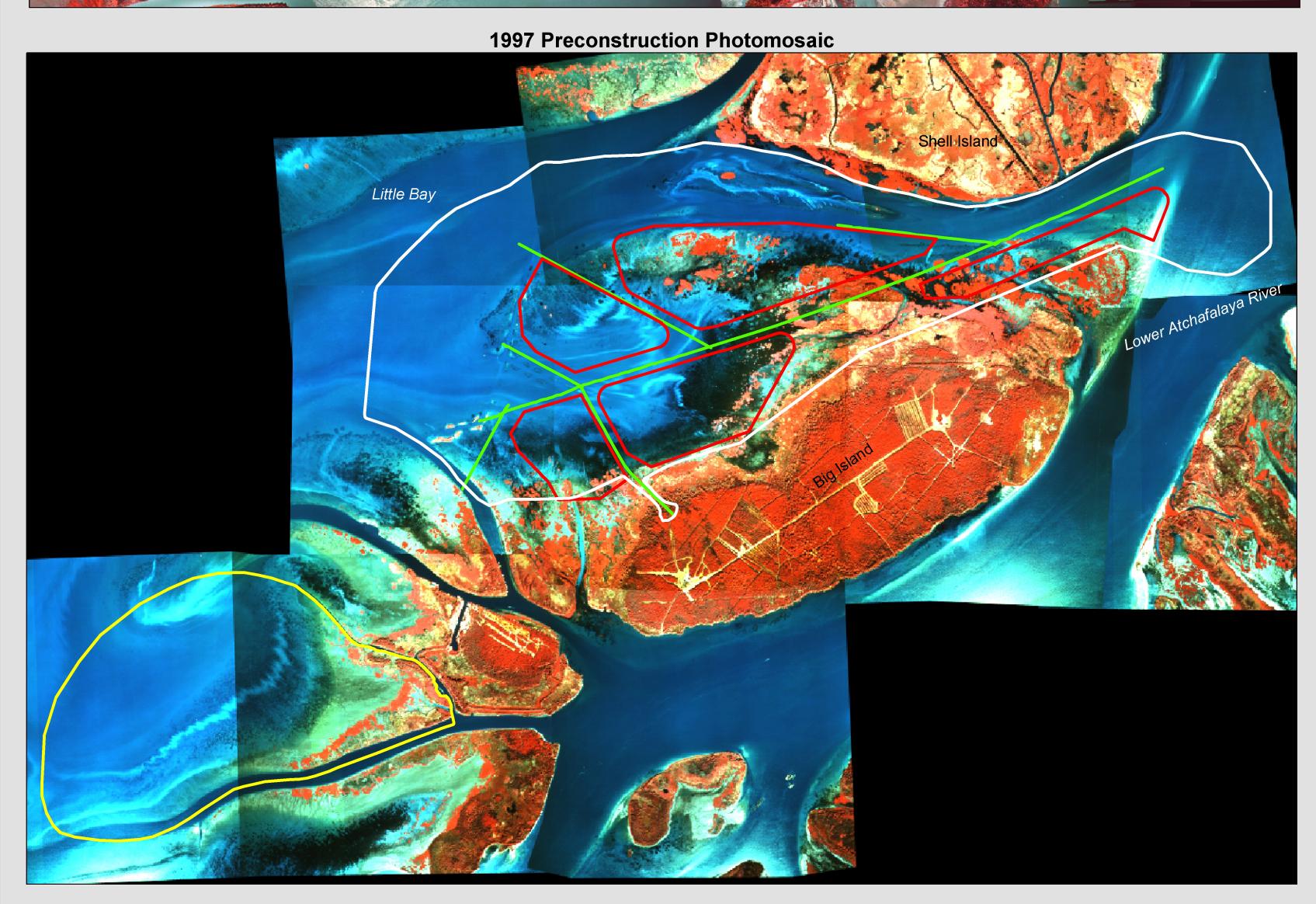




Project Description

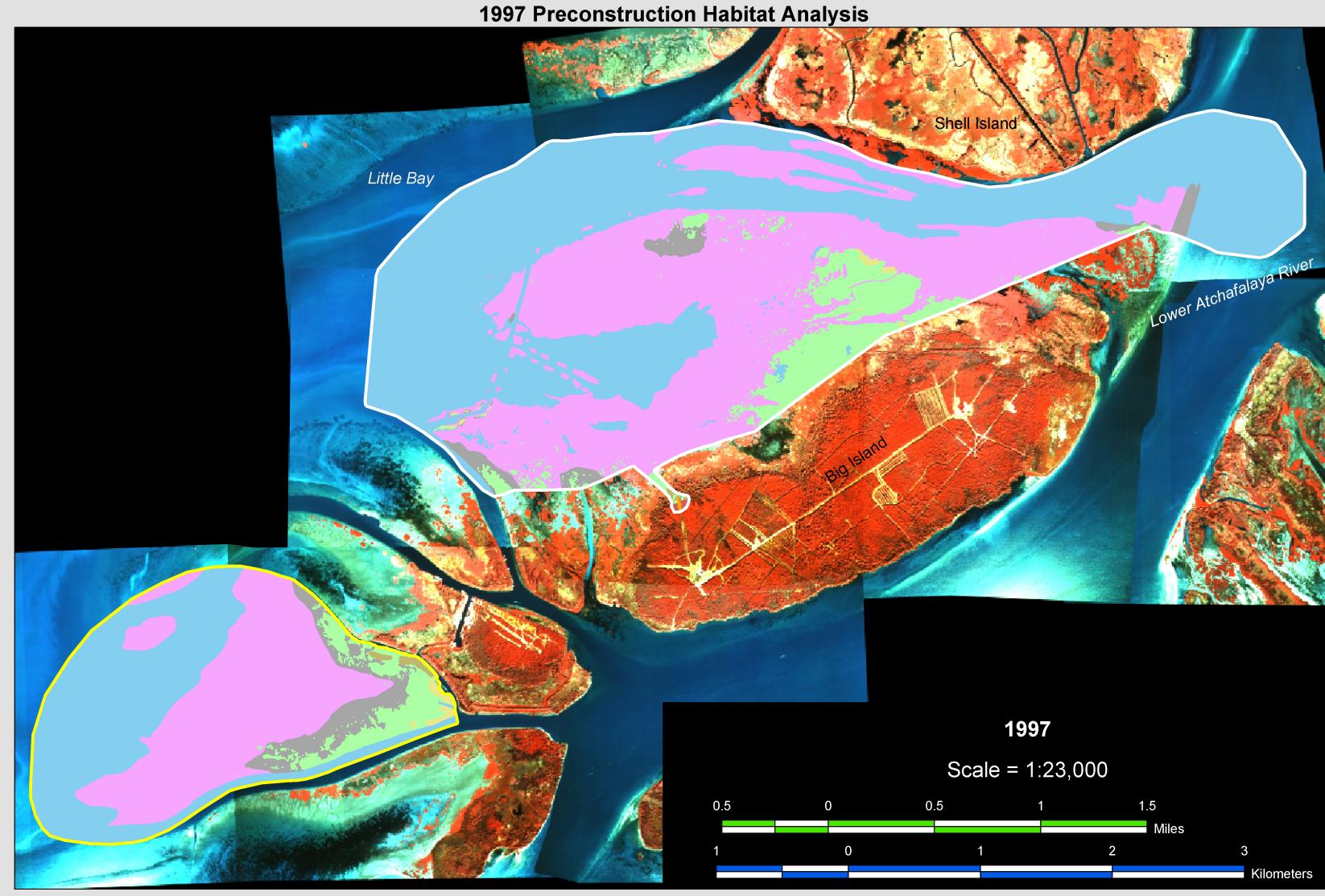
The Big Island Mining project is located in the northwestern region of the Atchafalaya delta and is bounded by Shell Island to the north, and the Lower Atchafalaya River to the east and southeast. The project is located within the Atchafalaya Delta State Wildlife Management Area in the southeast corner of St. Mary Parish, Louisiana. The Atchafalaya delta is bisected by the Lower Atchafalaya River, which is annually dredged by the U.S. Army Corps of Engineers for navigational purposes. The continually increasing channel depth, combined with dredged material deposition along the channel banks, has created an efficient conduit for river sediment to the Gulf of Mexico. Dredged material deposited along the western portion of the navigation channel formed Big Island. The project is enhancing natural delta building processes by creating an avenue for sediment transport to areas north and west of Big Island. The project consists of dredging a 21,000 ft (6.4 km) secondary distributary channel from the Lower Atchafalaya River along the northern side of Big Island with four smaller tertiary distributary channels to emulate an emerging delta. The main distributary channel starts with a bottom width of 800 ft (244 m) at elevation - 20.0 ft (-6.1 m) National Geodetic Vertical Datum (NGVD) and reduces to 400 ft (122 m) bottom width at elevation -10.0 ft (-3 m) NGVD to create a venturi effect to accelerate flow and keep sediment in suspension. A total of 2.78 million cubic yd (2.127 million cubic m) of dredged material will be placed in 5 dredge disposal areas at elevations between -3 ft and + 6 ft (-1 and +2 m) NGVD. The dredging and the placement of the material began on March 11, 1998 and ended on September 1, 1998.

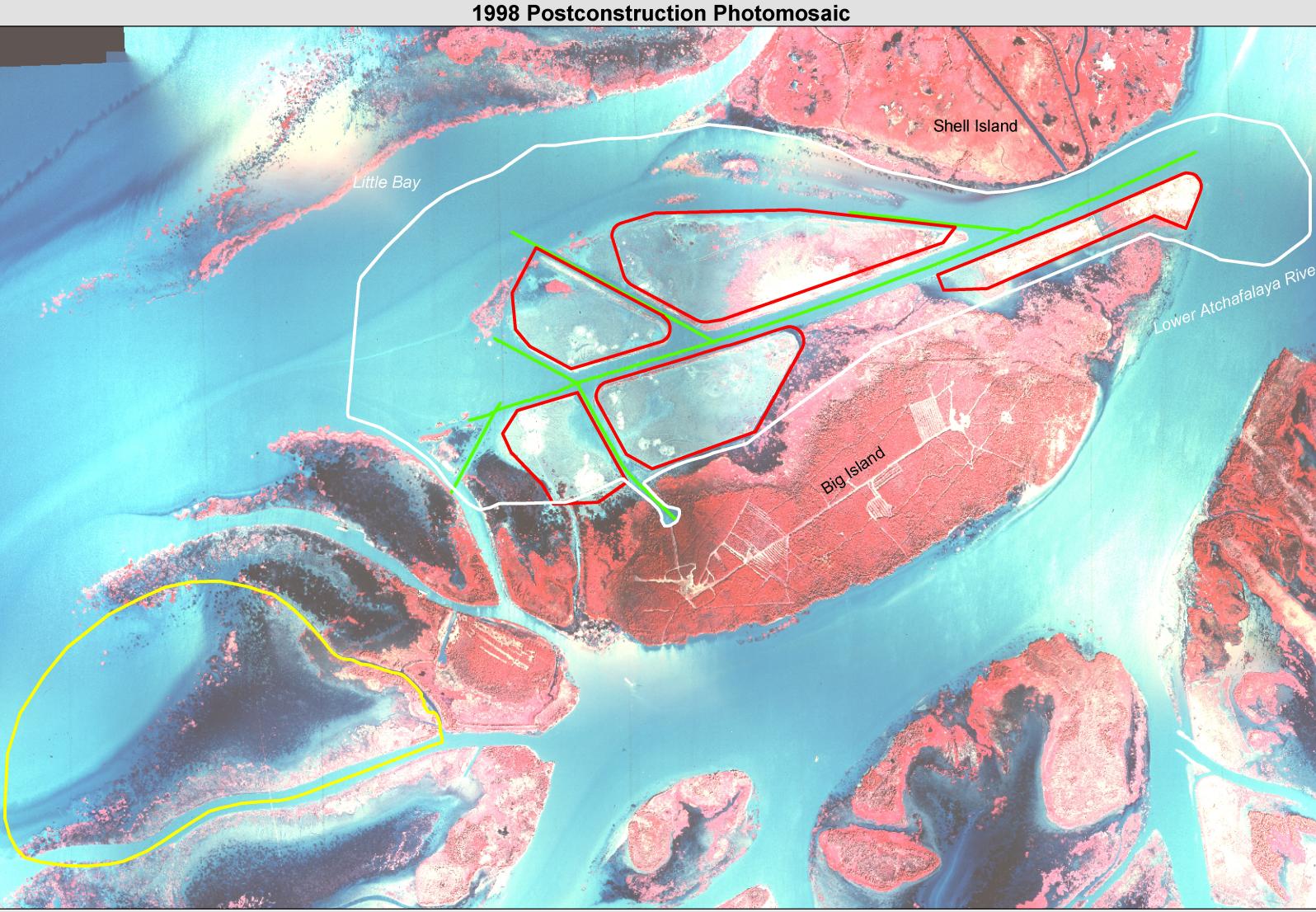




Project Features

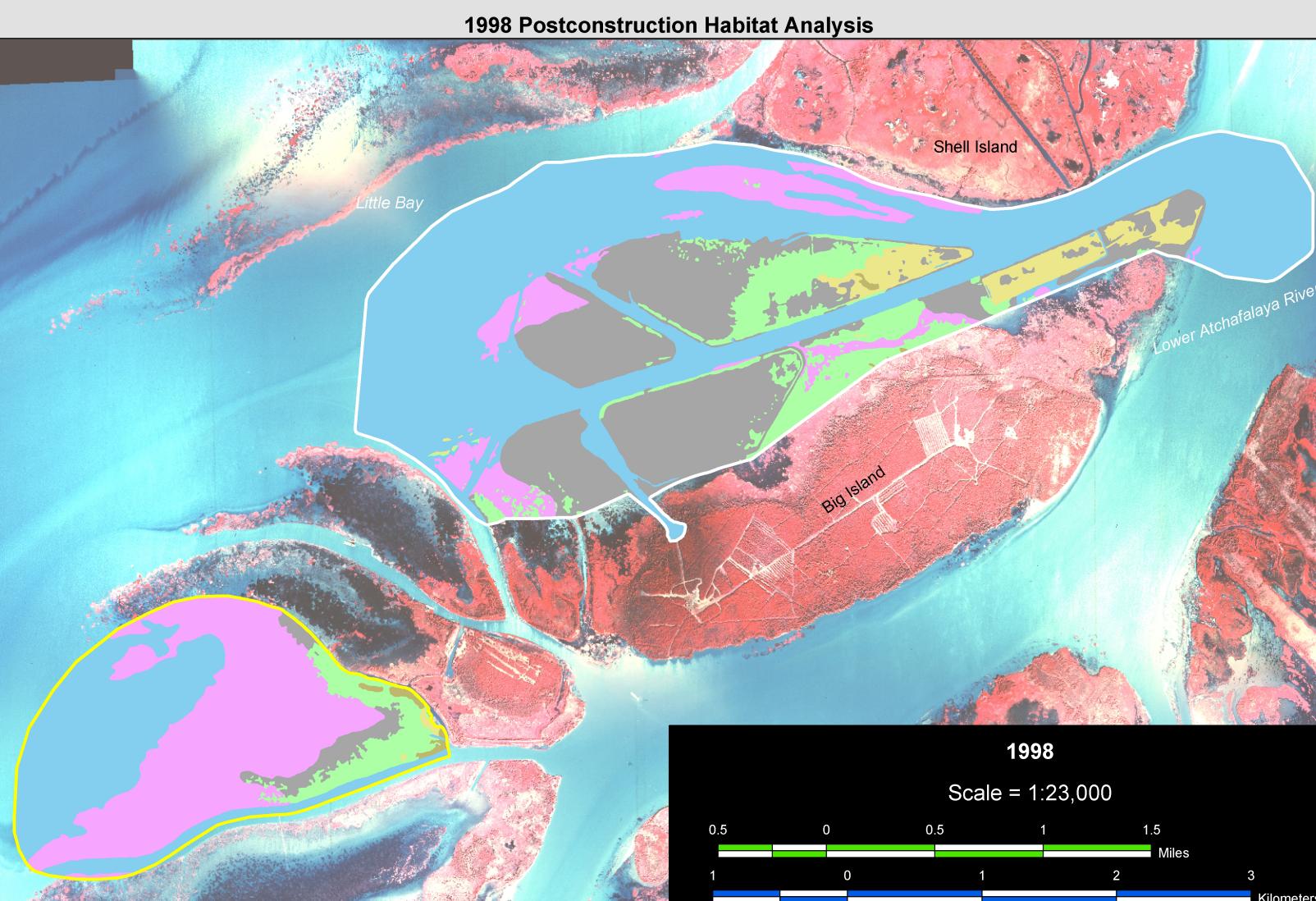
Project Area
Reference Area
Future Dredged Channels
Future Disposal Areas
Dredged Channels
Disposal Areas





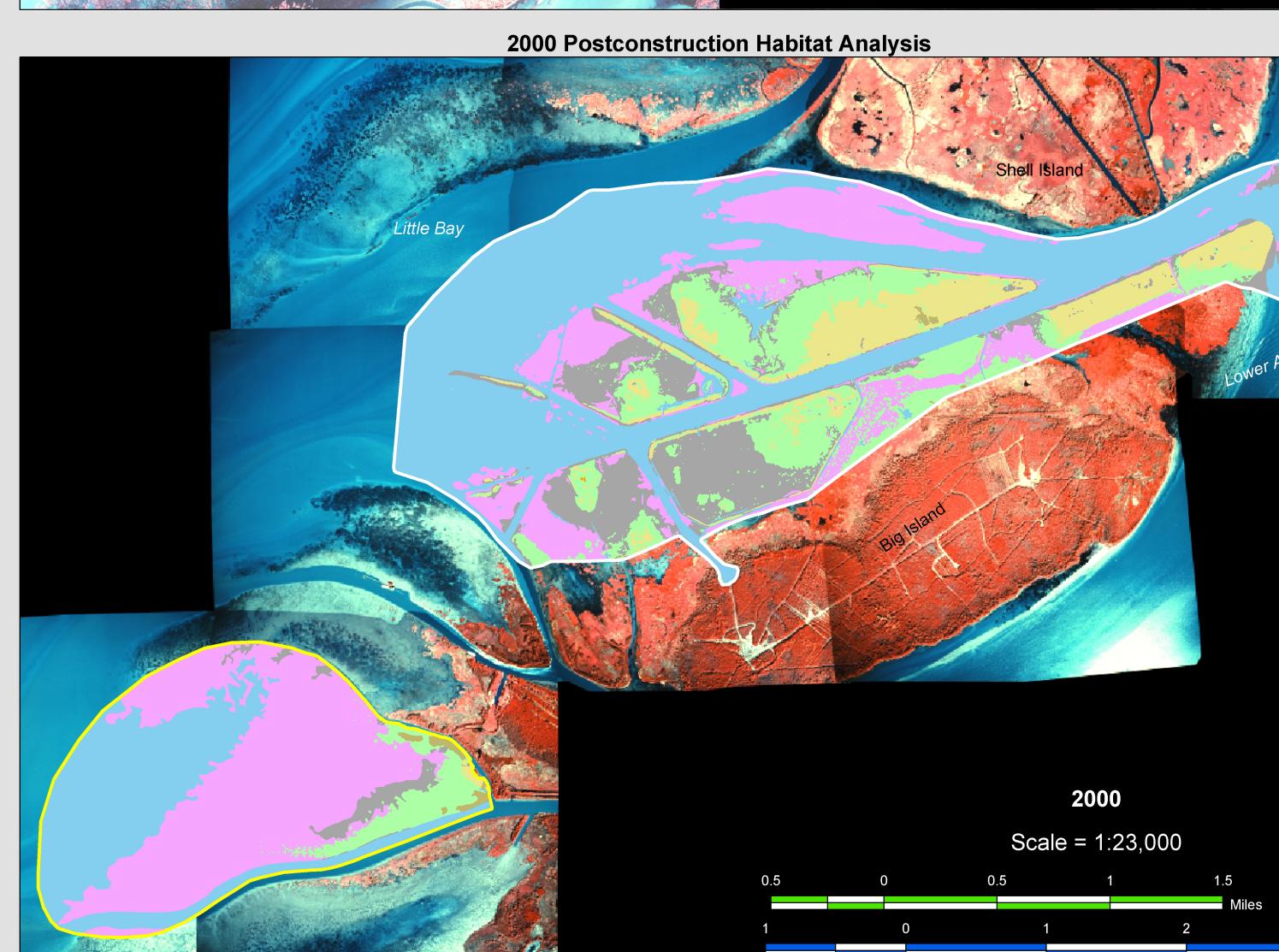
2000 Postconstruction Photomosaic

Habitat Classes Agriculture/Range Beach/Bar/Flat Fresh Marsh Open Water - Fresh Submerged Aquatics Upland Scrub-Shrub Wetland Forested Wetland Scrub-Shrub



Project Area Acreages

Habitat Class	1994	1997	1998	2000
Agriculture/Range	0	1	1	1
Beach/Bar/Flat	77	55	726	350
Fresh Marsh	155	196	247	372
Open Water - Fresh	2036	1388	1439	1318
Submerged Aquatics	488	1116	239	464
Upland Scrub-Shrub	2	2	0	1
Wetland Forested	2	2	2	2
Wetland Scrub-Shrub	5	5	111	257
TOTAL	2765	2765	2765	2765





		•		4
Habitat Class	1994	1997	1998	2000
Agriculture/Range	N/A	0	0	0
Beach/Bar/Flat	N/A	79	48	34
Fresh Marsh	N/A	79	90	71
Open Water - Fresh	N/A	437	394	375
Submerged Aquatics	N/A	447	510	561
Upland Scrub-Shrub	N/A	0	0	0
Wetland Forested	N/A	5	9	10
Wetland Scrub-Shrub	N/A	7	3	3
TOTAL	N/A	1054	1054	1054

* NOTE: At the time of the 1994 flight, the reference area had not been selected.



Coastal Restoration Division

Thibodaux Field Office



Source: The preconstruction habitat data (1994 and 1997) were derived from 1:12,000 scale color-infrared aerial photography acquired on December 19, 1994 and November 24, 1997. The postconstruction habitat data of 1998 were derived from 1:24,000 scale color-infrared photography obtained November 3, 1998. The postconstruction habitat data of 2000 were derived from 1:12,000 scale color-infrared photography obtained November 15, 2000. Habitat classes are based on "Classification of Wetlands and Deepwater Habitats of the United States," (Cowardin and others 1979, FWS/OBS-79/31) as modified for the National Wetlands Inventory mapping conventions.



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