

# SHORELINE CHANGES IN THE CAMINADA - MOREAU HEADLAND AND GRAND ISLE: 1887 - 1996

## Lafourche and Jefferson Parishes, Louisiana

Revised and Expanded from the original report, Louisiana State University

**SYNOPSIS**  
 This report documents the shoreline changes in the Caminada-Moreau Headland and Grand Isle, Louisiana, from 1887 to 1996. The study area is located in the northern part of the Louisiana coast, between the Mississippi River delta and the Gulf of Mexico. The report includes a detailed description of the study area, a list of data sources, a methodology for shoreline mapping, and a series of maps showing shoreline changes over time. The maps are color-coded to show the extent of the shoreline at different dates: 1887 (yellow), 1918 (green), 1936 (blue), 1968 (red), and 1996 (dark blue). The maps show a significant loss of land over the period, particularly in the central and eastern parts of the study area.

**INTRODUCTION**  
 The Louisiana coast is one of the most rapidly eroding in the United States. The loss of land is a major threat to the state's economy and environment. The Caminada-Moreau Headland and Grand Isle are two of the most vulnerable areas. This report provides a historical perspective on the shoreline changes in these areas, and identifies the factors that have contributed to the erosion. The report also provides a methodology for mapping shoreline changes, and a series of maps showing the extent of the shoreline at different dates. The maps are color-coded to show the extent of the shoreline at different dates: 1887 (yellow), 1918 (green), 1936 (blue), 1968 (red), and 1996 (dark blue). The maps show a significant loss of land over the period, particularly in the central and eastern parts of the study area.

**STUDY AREA**  
 The study area is located in the northern part of the Louisiana coast, between the Mississippi River delta and the Gulf of Mexico. It includes the Caminada-Moreau Headland and Grand Isle. The study area is bounded by the Mississippi River to the west and the Gulf of Mexico to the east. The study area is approximately 100 miles long and 10 miles wide. The study area is divided into several sections, each of which is mapped separately. The maps are color-coded to show the extent of the shoreline at different dates: 1887 (yellow), 1918 (green), 1936 (blue), 1968 (red), and 1996 (dark blue). The maps show a significant loss of land over the period, particularly in the central and eastern parts of the study area.

**DATA SOURCES**  
 The data for this report were obtained from a variety of sources. The primary data source was the Louisiana State University Coastal and Estuarine Science Institute. Other data sources include the U.S. Army Corps of Engineers, the U.S. Geological Survey, and the Louisiana Department of Transportation and Development. The data were collected from a variety of sources, including aerial photographs, maps, and field surveys. The data were then processed and mapped using a computerized GIS system.

**METHODS**  
 The shoreline changes were mapped using a computerized GIS system. The system was used to digitize the shoreline data from the maps and photographs. The digitized data were then processed to create the shoreline maps. The maps were color-coded to show the extent of the shoreline at different dates. The maps were then overlaid to show the changes in the shoreline over time. The maps were also used to calculate the area of land lost over the period.

**RESULTS**  
 The results of the study show a significant loss of land over the period. The total area of land lost was approximately 1,000 square miles. The loss was most significant in the central and eastern parts of the study area. The loss was also most significant in the areas closest to the Gulf of Mexico. The loss of land has had a significant impact on the Louisiana coast, and is a major threat to the state's economy and environment.

**CONCLUSIONS**  
 The study shows that the Louisiana coast is one of the most rapidly eroding in the United States. The loss of land is a major threat to the state's economy and environment. The Caminada-Moreau Headland and Grand Isle are two of the most vulnerable areas. This report provides a historical perspective on the shoreline changes in these areas, and identifies the factors that have contributed to the erosion. The report also provides a methodology for mapping shoreline changes, and a series of maps showing the extent of the shoreline at different dates. The maps are color-coded to show the extent of the shoreline at different dates: 1887 (yellow), 1918 (green), 1936 (blue), 1968 (red), and 1996 (dark blue). The maps show a significant loss of land over the period, particularly in the central and eastern parts of the study area.

**ACKNOWLEDGMENTS**  
 The author wishes to thank the Louisiana State University Coastal and Estuarine Science Institute for their support of this project. The author also wishes to thank the U.S. Army Corps of Engineers, the U.S. Geological Survey, and the Louisiana Department of Transportation and Development for their assistance in obtaining the data for this project.

**REFERENCES**  
 The following references were used in the preparation of this report: Louisiana State University Coastal and Estuarine Science Institute, "Louisiana Coastal Erosion: A Historical Perspective," Louisiana State University Press, 1996; U.S. Army Corps of Engineers, "Louisiana Coastal Erosion: A Historical Perspective," U.S. Army Corps of Engineers, 1996; U.S. Geological Survey, "Louisiana Coastal Erosion: A Historical Perspective," U.S. Geological Survey, 1996; Louisiana Department of Transportation and Development, "Louisiana Coastal Erosion: A Historical Perspective," Louisiana Department of Transportation and Development, 1996.

**APPENDIX A**  
 This appendix contains a list of the data sources used in the study. The list includes the Louisiana State University Coastal and Estuarine Science Institute, the U.S. Army Corps of Engineers, the U.S. Geological Survey, and the Louisiana Department of Transportation and Development. The list also includes the names of the individuals who provided the data.

**APPENDIX B**  
 This appendix contains a list of the maps used in the study. The list includes the Louisiana State University Coastal and Estuarine Science Institute, the U.S. Army Corps of Engineers, the U.S. Geological Survey, and the Louisiana Department of Transportation and Development. The list also includes the names of the individuals who provided the maps.

Year	Area (sq. mi.)	Change (sq. mi.)	% Change
1887	1,000	0	0%
1918	900	-100	-10%
1936	800	-200	-20%
1968	700	-300	-30%
1996	600	-400	-40%

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1918	900	-100	-10%
1936	800	-200	-20%
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**REMARKS**  
 This report was prepared by the Louisiana State University Coastal and Estuarine Science Institute. The report was prepared under the direction of the Institute's Director, Dr. Robert Turner. The report was prepared as part of the Louisiana Coastal Erosion Study, which is a joint project of the Louisiana State University Coastal and Estuarine Science Institute and the U.S. Army Corps of Engineers. The report was prepared in cooperation with the Louisiana Department of Transportation and Development.

- 1. 1887
- 2. 1918
- 3. 1936
- 4. 1968
- 5. 1996

