
The Effects of the Mississippi River–Gulf Outlet on Coastal Louisiana Land Loss

Shawn Brasseaux and Timothy W. Duex

School of Geosciences, University of Louisiana at Lafayette, 611 McKinley St.,
Hamilton Hall 323, P.O. Box 44650, Lafayette, Louisiana 70504

ABSTRACT

Approximately 40 percent of the contiguous United States' wetlands is in Louisiana, but as much as 80 percent of America's coastal land loss occurs there. This land loss is occurring at an astounding rate—a rate that is accelerating. The Mississippi River–Gulf Outlet (MRGO), a 120-km- (75-mi-) long canal initially dredged in the 1950s and 1960s and maintained by the U.S. Army Corps of Engineers, was intended to directly connect the Port of New Orleans to the Gulf of Mexico, thus bypassing the time-consuming, tortuous route via the Mississippi River and Delta. From the beginning, environmental groups and citizens greatly opposed the MRGO. The channel doubled and even tripled in width due to erosion along its banks, it merged with and tainted a nearby freshwater lake, it served as an amplifier for storm surge, and it increased salinity in nearby wetlands and forests. In 2009, a closure structure was constructed and all maritime traffic and dredging along the channel has since ceased. Since the MRGO's construction, approximately 618,000 acres were impacted via ongoing direct wetland loss along the channel's banks, or via extermination of thousands of acres of cypress swamp in St. Bernard Parish. By comparing aerial photography and satellite images, this study seeks to summarize and highlight the MRGO's impact on land changes in Louisiana, and what can be done to restore the land lost.