

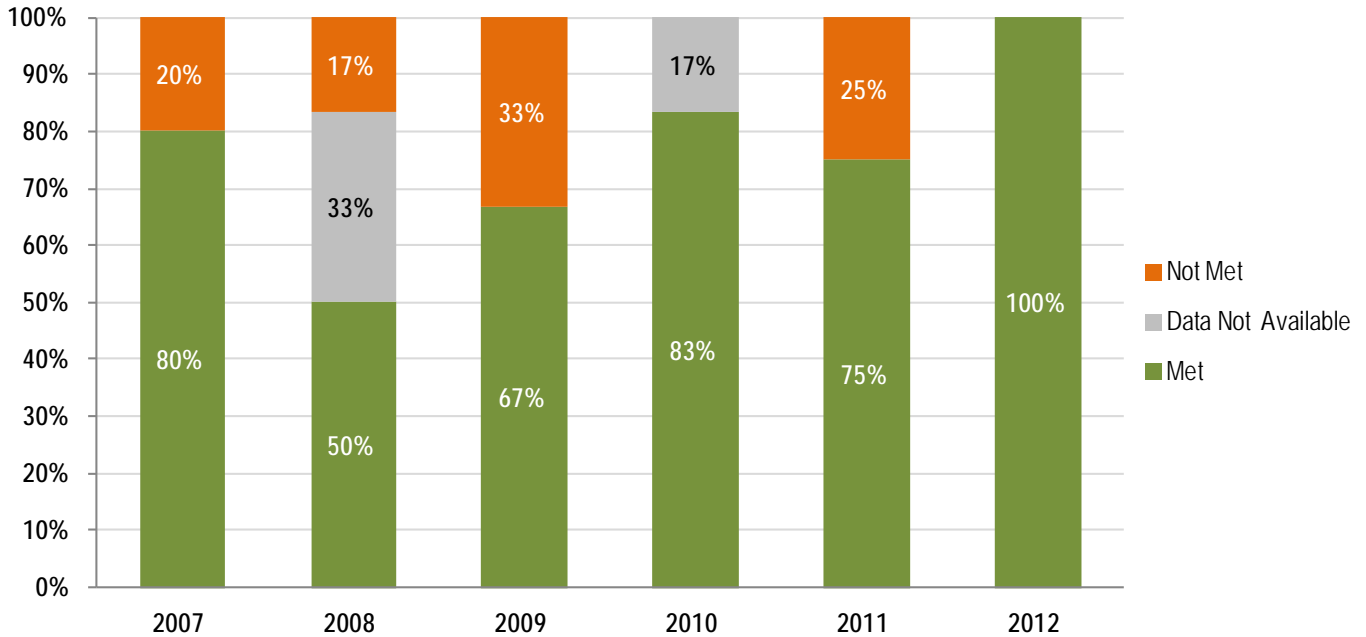
US EPA ARCHIVE DOCUMENT



## Subobjective: Gulf of Mexico

EPA met all of its commitments for the Gulf of Mexico Program in FY 2012. EPA has continued to meet the majority of its commitments to protect the Gulf of Mexico for four of the past five years (Figure 74).

Figure 74: Gulf of Mexico Subobjective Six-Year Trend



FY 2012 ACS Code	Abbreviated Measure Description	Results and Commitment Status						Appendix Page Number (D-0)/ Figure Number
		2007	2008	2009	2010	2011	2012	
<b>Subobjective 2.2.6 Restore and Protect the Gulf of Mexico</b>								
GM-435	Improve health–Gulf of Mexico ecosystem (index)	2.4	2.2	2.2		2.4	2.4	D-56
GM-SP38	Number of impaired Gulf water segments and habitat restored (cumulative)	109		131	170	286	316	D-57/Fig.79
GM-SP39	Number of Gulf Acres restored or enhanced (cumulative)	18,660	25,215	29,344	29,552	30,052	30,796	D-57/Fig.77
GM-SP40.N11	Reduce hypoxic zone Gulf of Mexico (sq kilometers)	20,500		8,000	20,000	17,520	7,483	D-58/Fig.75
GM-1	Implement warning system to manage algal blooms							D-58

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## FY 2012 Performance Highlights and Management Challenges

The Gulf of Mexico basin has been called “America’s Watershed.” Its U.S. coastline encompasses 1,630 miles; it is fed by 33 major rivers; and it receives drainage from 31 states in addition to a similar drainage area from Mexico. One-sixth of the U.S. population now lives in Gulf Coast states, and the region is experiencing remarkably rapid population growth. In addition, the Gulf of Mexico yields approximately 40% of the nation’s commercial fishery landings. Gulf Coast wetlands comprise about half the national total and provide critical habitat for 75% of the migratory waterfowl traversing the United States.

The latest *National Coastal Condition Report (NCCR IV)* (2012) indicates that the overall aquatic ecosystem health of the coastal waters of the Gulf of Mexico is rated as fair, or 2.4 on a 5-point scale, in which 1 is poor and 5 is good (Subobjective 4.3.2). The NCCR IV assessment is based on environmental stressor and response data collected by the states of Florida, Alabama, Mississippi, Louisiana, and Texas from 2003 to 2006. The hurricanes of 2005 (Katrina and Rita) significantly affected the data collected; Alabama, Mississippi, and Louisiana did not collect data in 2005, except for water quality indicators in Mississippi. These factors influenced the overall condition score, which represents no significant change from the previous ratings in NCCR II and III.

The size of the hypoxic, or “dead,” zone<sup>25</sup> in the Gulf of Mexico decreased significantly from 17,520 km<sup>2</sup> (8,000 mi<sup>2</sup>) in 2011 to 7,483 km<sup>2</sup> (2,889 mi<sup>2</sup>) in FY 2012 (SP-40) (Figure 75). A number of hydrological, climate, and monitoring factors impact the hypoxic zone from year to year (e.g., lower than average Mississippi River flow, timing of monitoring during weather events).<sup>26</sup> According to an academic research organization within the Gulf of Mexico basin, “The smaller area [in 2012] reflects the drought conditions across the US in that the freshwater discharge and associated nutrients delivered to the Gulf of Mexico was mostly below average in spring and approached the 80-year minimum discharge.”<sup>27</sup> The six-year running average is currently at 15,750 km<sup>2</sup> (6,681 mi<sup>2</sup>). The interagency Gulf of Mexico/Mississippi River Watershed Nutrient Task Force goal is to reduce the dead zone to a size of 5,000 km<sup>2</sup> (1,900 mi<sup>2</sup>) or less by 2015, based on a five-year running average. Figure 76 provides dissolved oxygen levels by location in the Gulf of Mexico.

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<sup>25</sup> The dead zone is an area of oxygen-starved water, also known as hypoxia. It is fueled by nitrogen and phosphorus runoff, principally from agricultural activity in the Mississippi River watershed, which stimulates an overgrowth of algae that sinks, decomposes, and consumes most of the life-giving oxygen supply in the water.

<sup>26</sup> For more information on causes of the size of the hypoxic zone, visit: <http://www.gulfhypoxia.net/News/documents/PressReleaseVers27Jul12.pdf>.

<sup>27</sup> Louisiana Universities Marine Consortium, July 27, 2012, Press Release.

Figure 75:

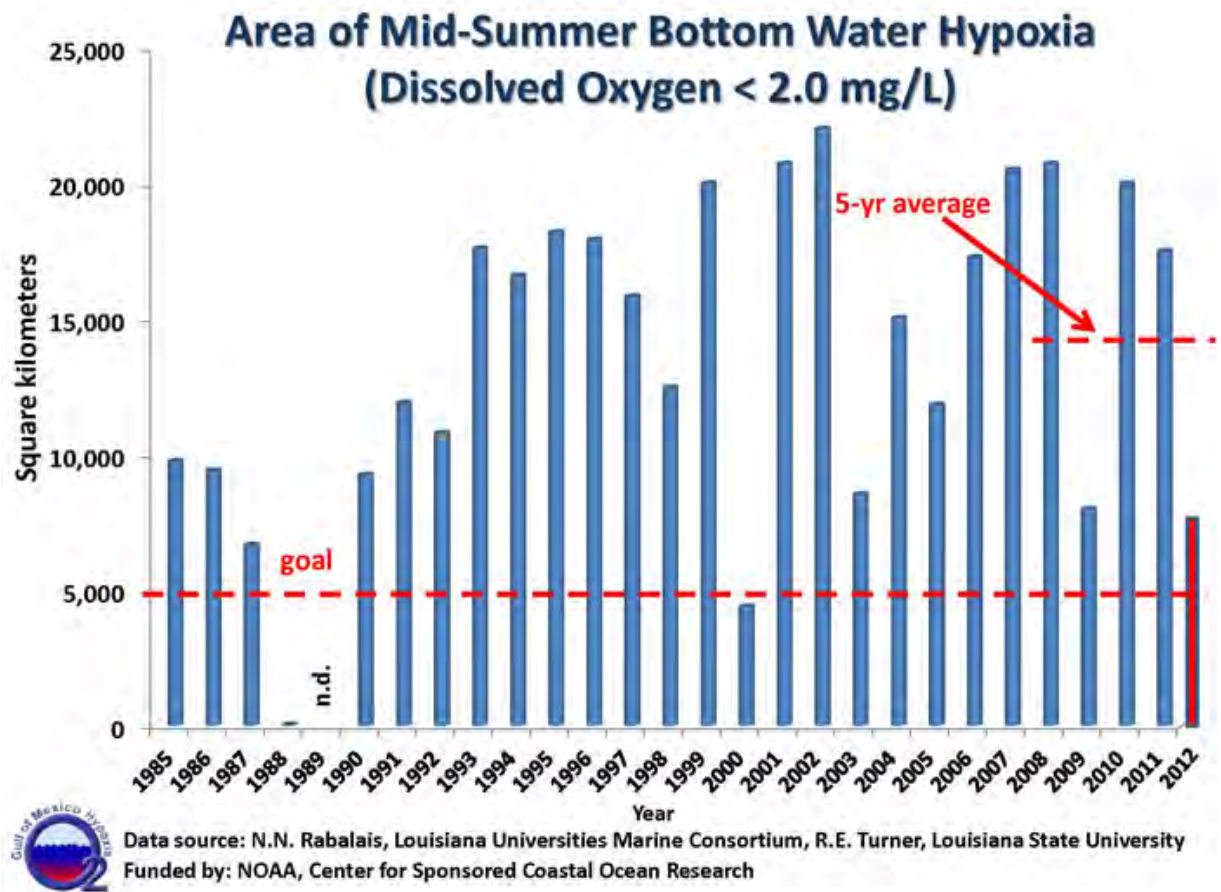
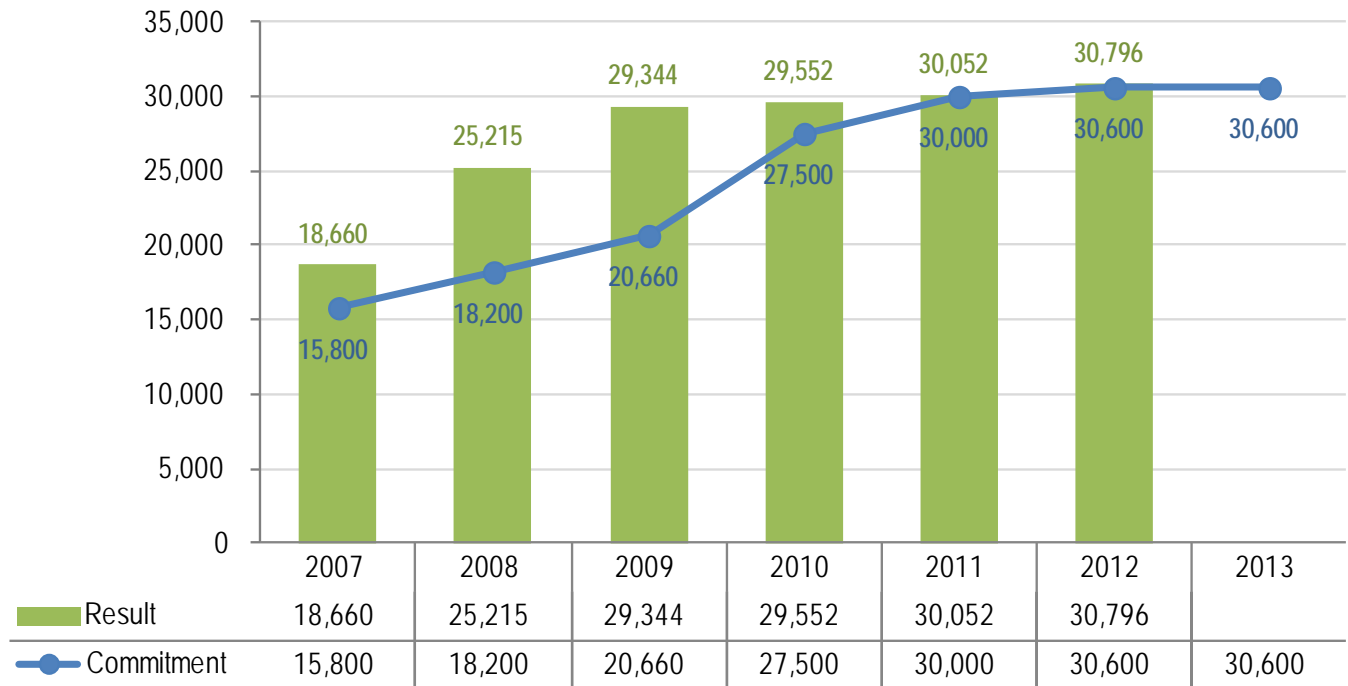


Figure 76: Dissolved Oxygen Levels in the Gulf of Mexico

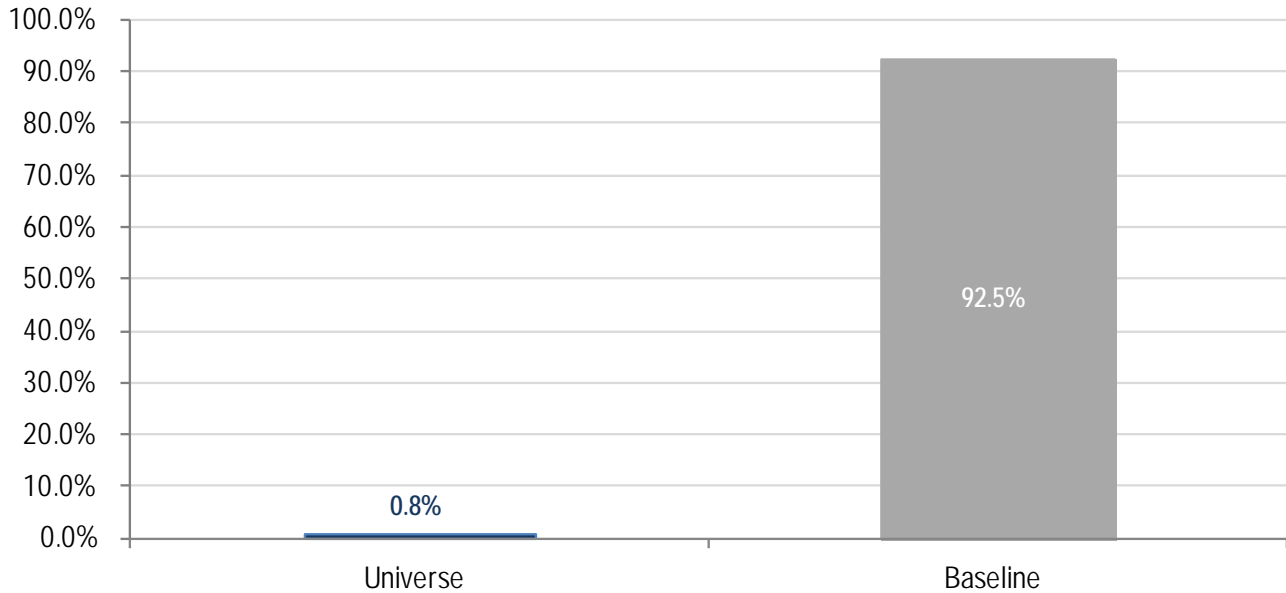


**Acres Habitat Restored:** The Gulf of Mexico Program ended the year slightly ahead of its FY 2012 cumulative target to restore, protect, or enhance 30,000 acres of coastal and marine habitats. Regional collaboration through coordinated efforts helped restore about 196 acres in 2012. Although the past three years have seen significantly less than the approximately 4,000 acres restored in 2009, the program has restored, enhanced, or protected a total of 30,796 acres in the states of Florida, Mississippi, Alabama, Louisiana, and Texas since 2006 (SP-39) (Figure 77). This is a 92% improvement over the FY 2005 baseline of 16,000 acres. Slightly less than 1% of the total universe of habitat acres, however, have been restored to date (Figure 78).

**Figure 77: Gulf Acres Restored or Enhanced by Fiscal Year (GM-SP39)**



**Figure 78: Gulf Acres Restored or Enhanced as a Percent of Universe and Percent Over Baseline by (GM-SP39)**



A central pillar of the strategy to restore the health of the Gulf is restoring water quality and habitat in 13 priority coastal watersheds. These 13 watersheds include 755 of the impaired segments identified by Gulf states that receive targeted technical and financial assistance to restore impaired waters. The program met its 2012 commitment (290) by restoring water and habitat quality to meet water quality standards in 316 impaired segments in priority coastal areas (Figure 79).

**Figure 79: Number of Impaired Gulf Water Segments and Habitat Restored to Meet Water Quality Standards (GM-SP38)**

