



**THE WATER INSTITUTE  
OF THE GULF™**

January 31, 2017

The Advocate  
10705 Rieger Road  
Baton Rouge, LA 70809

Dear Advocate editorial,

Jeff Sadow (The Advocate, January 29, 2017) recently wrote a column questioning the validity of sea level rise projections in Louisiana's Draft 2017 Coastal Master Plan, saying they were politically motivated. The specific scenarios used in the plan, contrary to Mr. Sadow claims, were developed by the Coastal Master Plan technical team, not by politicians, before the Edwards' administration took office.

The seas are rising and Louisiana has long been the poster child for rising waters due to the combined effects of global sea level rise and sinking land. Long-term records from Grand Isle show an average increase in water level of over three tenths of an inch per year from 1947 to 2015. That may not sound like much, but for people living on the coast that means the water is 15 inches higher than it was just after World War II. Coastal wetlands can fight back against sea level rise and subsidence by building soil through sediment deposition and peat accumulation, but in many areas that effort will be outmatched in future decades by rising water. The Draft 2017 Coastal Master Plan is intended to select the best coastal restoration strategies that can sustain existing wetlands and those newly built with dredged material.

To identify the projects that could do the most good for the coast over the 50-year life of her plan, the Coastal Protection and Restoration Authority (CPRA) needed to think about potential future conditions, including sea level rise.

The future sea level rise ranges used for the draft plan are plausible and were based upon best available science in 2014, back when work on the five-year update was underway.

Where sea level rise will fall within this plausible range is uncertain.

As part of our support to CPRA in developing the Coastal Master Plan, Institute scientists conducted sensitivity analysis to assess the response of the coastal landscape to future sea level rise. The results were stark. Increases in sea level of about eight inches resulted in an additional loss of over 300 square miles of land over the next 50 years.

One American Place, 301 N. Main Street, Suite 2000

Baton Rouge, LA 70825

[www.thewaterinstitute.org](http://www.thewaterinstitute.org) | (225) 448-2813



Based in part on this analysis, the state developed and used multiple scenarios to evaluate potential projects.

Faced with these results about the consequences of rising sea level, in addition to uncertainty regarding subsidence, CPRA adopted the same approach used for the 2012 Coastal Master Plan. Simply put, they “plan for the worst, but hope for the best.” This means they selected projects that perform well under higher rates of subsidence and sea level rise (the High scenario) rather than those that perform well under lower rates of subsidence and sea level rise (the Low scenario).

This was not guess work. Detailed analysis conducted by the RAND Corporation showed that the highest “regret” would occur if projects were selected under the Low scenario, yet we all ended up facing the conditions included in the High scenario.

Louisiana will face major challenges on the coast if the higher rates of sea level rise come to pass, as will all other low-lying coastal systems around the U.S. and the world. Although there are states that have chosen to ignore the potential effects on their coastal communities, for once Louisiana is a leader in thinking about a range of potential futures and putting forward a plan founded on analysis and forward thinking. Those of us who live on the coast and see the water rise with each passing generation, know this issue cannot be ignored.

Sincerely,

**Denise Reed, Ph.D.**

Chief Scientist, The Water Institute of the Gulf  
Resident of Montegut, Louisiana