



UNITED FOR A HEALTHY GULF

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7 March 2012

Kristin DeMarco

Coastal Protection and Restoration Authority of Louisiana
450 Laurel Street, Suite 1200
Baton Rouge, LA 70804-4027
ATTN: LACES – SLR Comments

RE: DRAFT Recommendations for Anticipating Sea-level rise impacts on Louisiana Coastal Resources during Project Planning and Design.

Ms. DeMarco, LACES,

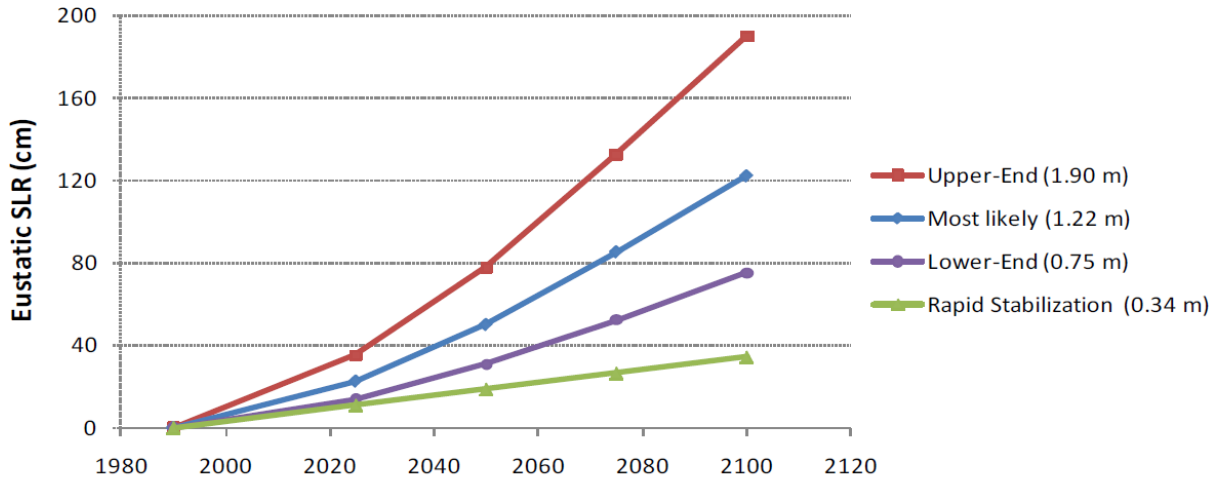
I am writing on behalf of the Gulf Restoration Network (GRN), a diverse coalition of individual citizens and local, regional, and national organizations committed to uniting and empowering people to protect and restore the resources of the Gulf of Mexico. We have strong concerns that the LACES technical report (“the report”) is shying away from the uncomfortable truth that anthropogenic climate change is threatening would-be gains of CPRA’s coastal restoration program, including the 2012 draft comprehensive master plan.

The LACES report should recommend CPRA staff consider an upper bound to Global Sea Level Rise of 1.9 meters by 2100.

Because half of the studies cited as guidance for the LACES sea level rise projections exceed 1.5 meters, LACES should recommend an upper bound of 1.9 meters for managers and planners, as a “worst-case” or “least optimistic scenario.” An upper bound of 1.9 meters (6.2’) is consistent with other optimistic modeling scenarios and educational efforts focused on Southeastern Louisiana, and consistent with the upper bound projection of a recent Sea-level rise publication that correlated very closely with the observed data.¹ This particular study is one that a recent SLAMM model from NWF takes as a basis for modeling the marsh response to Sea-level rise. The SLAMM analysis, like LACES recommends, takes local subsidence and marsh accretion into account in its analysis of habitat change.

¹ Vermeer, M. S., & S. Rahmstorf. (2009). Global sea level linked to global temperature. Proceedings of the National Academy of Sciences 106: 2 1527-2153

Forecast: SLR scenarios examined



Glick, 2011. Sea-level rise scenarios examined for Southeastern Louisiana. “Most Likely” scenario is near the current “upper bound” currently recommended by the report. The report’s lower boundary, 0.5 m, is only considered part of a “Rapid Stabilization” scenario.

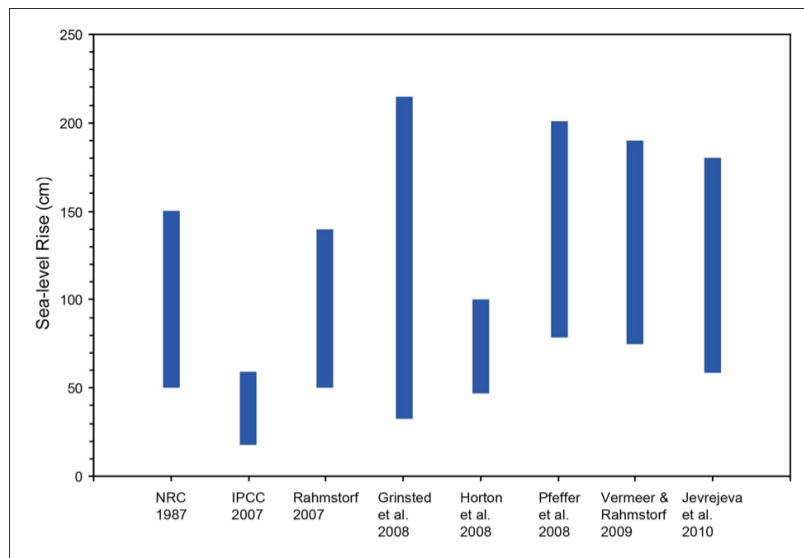


Figure from <http://wh.er.usgs.gov/slr/sealevelrise.html>. Cited in the LACES technical report and the NWF SLAMM modeling effort.

A “worst-case” of 1.9 meters would also be in line with common NOAA educational materials, which show sea level rise to “6 feet”² or a bit less than 1.9 meters.³

² NOAA, Sea Level Rise Visualisation for Gulf Coast. <http://gom.usgs.gov/slr/index.html>

The current “upper-bound” scenario is closer to what is considered “most likely” by more up-to-date publications and reports. The current range of 0.5 – 1.5 m does not reflect LACES’ review of the literature, and fails to cover a range of scenarios presented by different studies referenced. **Rather than choosing bounds based on results of confidence intervals of a particularly optimistic study, the LACES recommendations should seek to cover a range of scenarios.**

Furthermore, all projections assume a range of different fossil fuel emissions scenarios. To date, the older projections have been made assuming that the fossil fuel use would stabilize or decline, and even decline rapidly. Later publications all show higher upper bounds. As the regulatory agencies stall, and global governance fails to lead the world toward a rapid stabilization of the climate, we can expect that the studies’ upper bounds will continue to rise.⁴

If the purpose of the document is to inform managers and planning staff of likely implications of Sea-level rise, it would be best to have managers hope for the best, but prepare for the worst. LACES has hoped for the best, in its recommendation of lower bound that assumes a “Rapid Stabilization” of the climate. LACES should recommend managers and planners prepare for the worst by increasing its recommended upper bound of GSLR to 1.9 m.

ADCIRC models should account for increasing storm frequency and intensity

Climate change, among many other things, is also increasing storm frequency, which is relevant to CPRA’s planning efforts. Different climate scenarios for storm surge are being incorporated into storm surge models by scientists for other states,⁵ and Louisiana should keep pace. Attached is a copy of a very recent study that outlines a methodology for incorporating different climate scenarios into storm surge modeling.

We look forward to a response to these comments. Thanks for your consideration. Please contact me for copies of any reports or papers referenced herein.

For a Healthy Gulf,

Scott Eustis, Coastal Wetland Specialist, Gulf Restoration Network

Cc: Matt Rota, Gulf Restoration Network

³ Sea-level Rise and Coastal Habitats in Southeastern Louisiana (SLAMM). Draft Technical Report, July 2011, NWF. Presented by [Patty Glick](#) for GOMA in New Orleans, August 2011 [presentation](#) accessed Feb 2012

⁴ *Id.* P.9

⁵ Physically based assessment of hurricane surge threat under climate change. Ning Lin, Kerry Emanuel, Michael Oppenheimer & Erik Vanmarcke Nature Climate Change (2012) doi:10.1038/nclimate1389