

Coastal and Water Management Emerging Growth Sector

MPRAC Task Force Report

9/23/2013

Matthew Lee

Sam Bentley

Brian Mitchell

David Borrok

Zhu Ning

Karl Schultz

Bill Campbell

Nancy Rabalais (unable to
participate)

Preface

- This review captured Louisiana universities at a time of rapid expansion in coastal and water management programs and initiatives.
- The review highlighted essential changes that should be made by Louisiana universities
- The recommendations of the review are generally narrower than would benefit and leverage the breadth of expertise and potential of Louisiana universities.
- Simultaneously with the completion of the review report, many of these changes were and are already being made, albeit on a broader base consistent with existing university strategic plans, and independent of the Battelle review process.

Immediate Opportunities

- Develop a comprehensive strategy for leveraging coastal and water management research and innovation assets to maximize sector-related job growth, funding, and the creation of federal research centers. This should include foci on human (e.g. municipal, agricultural, fracking/energy, aquacultural), ecosystem (e.g. wetlands and forests) and groundwater demands, in addition to physical science and coastal engineering foci.
- Identify critical needs and potential locations for signature facilities
- Identify corresponding human and intellectual capital needs for said signature facilities
- Leverage The Water Institute of the Gulf (TWIG), in cooperation with Louisiana universities (or potentially through Louisiana Universities Marine Consortium [LUMCON]) to form a partnership with the Corps of Engineers and other entities to broaden statewide efforts to improve numerical models for sediment flows
- Ensure that basic research continues to be supported by the BoR, as this is what drives applied research.
- Make use of CCT/High Performance Computing capabilities at LSU for numerical modeling of sediment flows.

Short Term Opportunities

- Identify and expand strategic partnership opportunities between universities (e.g., Tulane's Riverfront Campus) and any industries that use large quantities of water
- Focus on attracting coastal engineering and restoration industries and water related technology industries to Louisiana.
- Identify undergraduate and graduate programs in applied science and engineering that could be developed to align with emerging industrial needs
- Begin to identify faculty professional development program opportunities in industry.

Intermediate Opportunities

- Establish a business model and process with clear policies and procedures to maximize the use of test facilities, educational programs, exhibition space, and the business incubator in relation to the states major assets such as the developing Baton Rouge water campus (which is a joint venture of CPRA, TWIG, LSU and Tulane) and Tulane's Riverfront campus.
- Design and build signature facilities
- Identify incentives needed to recruit signature facility users from academia and industry
- Implement/establish undergraduate and graduate programs in prior phase
- Establish business recruitment plan that is aligned with what the signature facilities will be

Long Term Opportunities

- Build and use signature facilities
- Establish plans to maintain and upgrade signature facilities
- Implement business recruitment plans

Action Plan

1. Appoint diverse task force to formulate leveraging plan. (BoR)
2. Establish a Signature Facility committee composed of academic and industrial research interests to oversee process beginning with needs assessment and ending with recruitment of users
3. Charge appropriate agency with fostering links between universities and industry via problem solving workshops, faculty development training in industry context, and pursuit of extramural funding. (Water Institute of the Gulf?)
4. Encourage Board of Regents to maintain funding for basic research. (MPRAC)
5. Establish sediment flow modeling as a priority research area and cultivate collaboration with CCT. (MRPAC/CCT)
6. Establish appropriate applied science and engineering programs. (Universities)
7. Establish coastal and water management business recruitment committee. (LED)