

ED HARTE donated
\$46 million
in 2000 to establish HRI

HRI operating budget totaled
2018 \$20 million

HRI NUMBERS AT A GLANCE
38 staff
66 students 10 senior leaders

HARTE RESEARCH INSTITUTE



VISION

The Gulf of Mexico is ecologically and economically sustainable.

MISSION

Science-driven solutions for Gulf of Mexico problems.

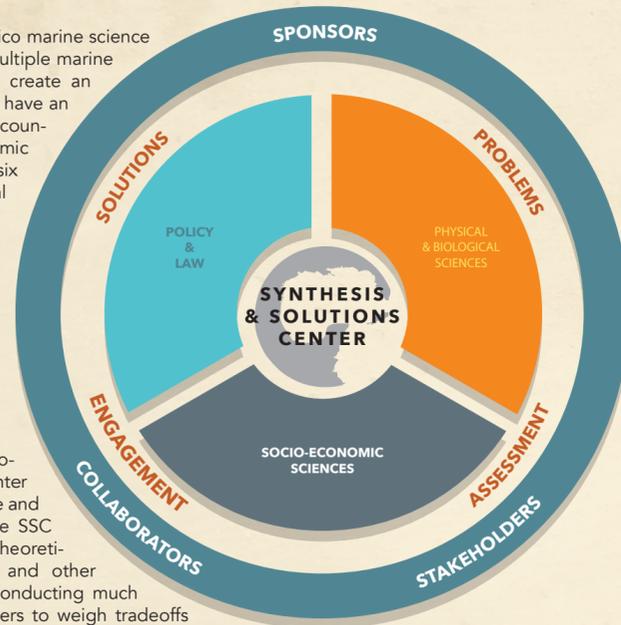
STRATEGIC EMPHASIS

High-impact science and policy to educate, inspire, and inform all generations of leaders and scientists.

HRI CREATING CHANGE Structure for Success

The HRI model is unique among Gulf of Mexico marine science institutes. It includes expert researchers in multiple marine science disciplines, economics, and law to create an integrated, interdisciplinary institute that can have an impact, operating with the other two Gulf countries, on critical environmental and economic problems. Employing the synergy of six endowed chairs sharing the same physical space, HRI has applied this specialized, integrative capacity to empower decision-makers, industry leaders, and stakeholders in the U.S., Mexico, and Cuba to strengthen the resilience of Gulf communities, economies, and environments. However, while this has resulted in significant growth at HRI, there are challenges in entering the next phase, particularly in more effectively linking science to decision-making.

To meet these challenges the institute will introduce the HRI Synthesis and Solutions Center (SSC), improving capabilities to provide viable and actionable solutions to decision-makers. The SSC will provide meta-analysis, conceptual and theoretical integration, information management, and other decision analytics for the Gulf of Mexico, conducting much needed analysis and enabling decision-makers to weigh tradeoffs across various policy options.



In support of the SSC, HRI will:

- Leverage Texas OneGulf, a RESTORE Center of Excellence conceived of and led by HRI that includes nine state institutions with wide-ranging expertise across more than 160 of the state's leading Gulf experts,
- Enhance institutional operations through innovative shared laboratory functions, data and information management, and cooperative research mechanisms with the university and other entities, and
- Pursue partnerships to expand and integrate expertise in interdisciplinary research areas such as coastal and marine engineering, big data informatics, and risk modeling.

PRIORITY PROJECTS Addressing Gulf Problems

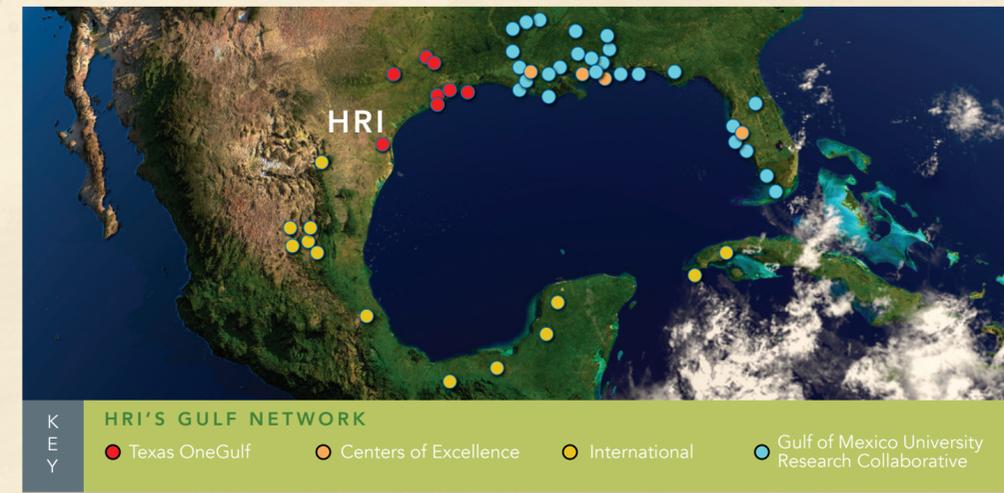
To help realize outcomes in each research area, HRI has identified six High Priority Projects defined by distinct and achievable objectives, time frames from two to five years, and well-defined metrics. These Projects may be sub-regional in scope but will always be expandable to the entire Gulf and transferable both nationally and internationally.

- Responsive and Objective Science Engagement – Ensuring policy and resource management decisions affecting the Gulf are science based.
- Environmental Water Incorporated into Water Planning, Development, and Management – Pursuing innovative strategies to fully incorporate environmental water into planning, development, and management.
- Gulf Health Index – Providing all users a credible, transparent process built on easily obtainable data that offers an objective and sustained assessment of the ecological and socio-economic health of the Gulf of Mexico.
- Consistent International Environmental Policy for the Gulf of Mexico – Ensuring that environmental policies and regulations affecting shared resources are harmonized across international borders.
- Smart Growth for Coastal Communities – Developing and supporting implementation of a Sea Level Rise Plan for Texas to protect economic investments and environmental stability of Texas coastal margins.
- Sustainable Recreational Fisheries Model – Developing and implementing a national policy and management structure for assuring a sustainable recreational fishery.
- Gulf Knowledge Base – Ensuring a data and information legacy that promotes continual discovery and public awareness of the Gulf of Mexico large marine ecosystem.

HRI SHAPING THE FUTURE Gulf Collaborations

Over the next ten years, HRI will maximize impact by bringing together increasingly diverse experts, data, and information to address big picture questions at a deeper level. The institute's highly respected team of researchers, students, leaders, entrepreneurs, and staff will move the institute toward transdisciplinary collaboration by:

- Identifying collaborations across disciplines and nations to generate new ideas and approaches,
- Informing science-based policies and actions to transform the management of natural resources, secure the resilience of Gulf communities, and strengthen regional and national economies, and
- Training and enriching the next generation of Gulf leaders and scientists to perpetuate deep-rooted, indelible change.



THINKING DEEPER STRATEGIC PLAN OVERVIEW 2018-2028

HRI THINKING DEEPER

Working for a Healthy Gulf

In the Gulf of Mexico, habitat loss is greater than anywhere else in the nation, the hypoxic zone reoccurs annually, pollution is unrelenting, and overfishing remains problematic. Factoring in climate change and a burgeoning coastal population, Gulf sustainability becomes increasingly more complex and difficult to secure. Founded in 2002, the Harte Research Institute (HRI) for Gulf of Mexico Studies at Texas A&M University-Corpus Christi (TAMUCC) is the only research institute dedicated solely to understanding these complex dynamics and advancing the long-term viability of the world's ninth-largest body of water.

In the early years of HRI, at a meeting of the advisory board in Havana, Ed Harte exhorted HRI leadership to "Make a difference!" It's a message that guides the institute everyday as we research and teach how to make the Gulf more sustainable, both environmentally and economically. To direct future effort, HRI engaged in a multi-year, multi-stakeholder assessment and comprehensive strategic planning initiative.

HRI's *Thinking Deeper 2018–2028* details the strategy the institute will execute, in lockstep with its partners, to craft and implement actionable and long-lasting solutions for the Gulf of Mexico. This Strategic Plan Overview describes HRI's core elements—structural and functional—and its priority tasks for the next decade. In its addendums, *Thinking Deeper* includes detailed companion pieces that provide the underpinning metrics we will use to assess success.



A significant component to HRI's success is its relationship with Texas A&M University-Corpus Christi. The university setting provides a transparent, collaborative venue for bringing together diverse stakeholders and partners. It also offers a foundation to train and empower students as the next generation of leaders.

HRI SHARING SOLUTIONS

Principle-Driven Science

Working under a shared conceptual framing emphasizing science-based action, HRI conducts world-class science and fosters deep engagement on complex issues, both internationally and across disciplines, by engaging experts, decision-makers, stakeholders, and the public. HRI scientists and staff are leaders, entrepreneurs, and innovators advancing holistic, creative, and feasible solutions for a sustainable Gulf of Mexico.

From its inception, HRI has been guided by three core principles:

- Research is interdisciplinary, balancing biophysical science with social, behavioral, and economic science and policy.
- Research upholds the highest standards for scientific integrity and is integrated to provide holistic and grounded solutions.
- Engagement is encouraged and facilitated by providing a collaborative platform to all Gulf of Mexico stakeholders in the U.S., Mexico, and Cuba.

HRI TAKING ACTION

Strategic Framework

Without intervention, the health and productivity of the Gulf of Mexico will continue to be at risk because of our use of it. Transformative changes are needed. HRI has a demonstrated history of successfully initiating and sustaining change. The institute's theory of change, derived from its core principles, embraces the concept that academic research institutions can actively link natural science, social science, and policy and law considerations to sensible solutions that drive sustainability. Growing institutional strengths and abilities to provide actionable science will help address the biggest challenges to Gulf of Mexico health and prosperity.

Thinking Deeper provides the focus and structure needed to direct HRI's resources and initiatives to affect positive change during its next phase. Working collaboratively, the HRI team assessed current and planned capacity and established four Research Areas that, with the SSC, will advance the institute's Vision, Mission, and Strategic Emphasis.



HRI ACHIEVING RESULTS

Research Areas, Outcomes, and Actions to 2028

The Research Areas frame HRI's vision for positively impacting the Gulf of Mexico's greatest challenges. The outcomes within each Research Area set the standards and guide the work and priority tasks that will create the change needed to ensure the Gulf's health. During the next 10 years, this strategic plan will evolve to reflect successes and emerging issues. For the most up-to-date information, visit harteresearchinstitute.org.

<h3>Sustainable Coastal & Marine Ecosystems</h3>		
<p>OUTCOME 1.1 Habitat conservation and restoration is science-based and considers ecosystem services</p>	<p>OUTCOME 1.2 Biodiversity is maintained through strategies that sustain ecosystem health</p>	<p>OUTCOME 1.3 Fisheries are a renewable resource and recreational fisheries are a major economic driver</p>
<h3>Healthy Coastal Communities & Economies</h3>		
<p>OUTCOME 2.1 Coastal resilience practices are holistic and pursue a systems approach</p>	<p>OUTCOME 2.2 One Health is incorporated into decision-making</p>	
<h3>Coastal & Marine Resource Management</h3>		
<p>OUTCOME 3.1 Energy development is environmentally sensitive</p>	<p>OUTCOME 3.2 Environmental water needs are incorporated as a beneficial use in planning across the Gulf</p>	<p>OUTCOME 3.3 Ecosystem functioning and its benefits are integrated into coastal planning</p>
<h3>Institutional Excellence</h3>		
<p>OUTCOME 4.1 HRI's culture and processes advance holistic problem solving and employee inclusion</p>	<p>OUTCOME 4.2 Data management needs are met</p>	<p>OUTCOME 4.3 Strategic engagement is advanced</p>

HRI is committed to the concept that holistic, long-term Gulf solutions must evolve in concert with our international partners. We have engaged key partners around the Gulf since our inception, and continue to grow these partnerships today.

For example, HRI has Memorandums of Understanding with government and research institutions in Cuba and Mexico, allowing us to engage in research projects in these countries. The agreements also enable us to better share existing information and to exchange staff and students. This is key to facilitating collaboration across the Gulf.

