 ACTION PLAN 2 OF 2

INCREASE ACCESS TO GALVESTON BAY ECOSYSTEM INFORMATION (ACS)

Access to Galveston Bay ecosystem information is a crucial element in decision making by resource managers and policy makers. Bay ecosystem data support decisions on current and future management needs, informing policies, applicable to the bay and its living resources, that are necessary to maintaining the health of the bay.

Ecosystem data should also be easily accessible to other members of the environmental decision-making process, as well as stakeholders and the public. Access to data ensures adequate understanding of the components comprising the Galveston Bay ecosystem. This will assist residents' understanding of how they impact the estuary and motivate them to change their actions.

Prior to the GBEP Regional Monitoring Plan (the current Plan begins on page 145), it was difficult to access these data because there was no clearinghouse for all information related to the health of the bay, resulting in some duplication of efforts. In addition, the efforts of each partner agency and organization were typically directed at fulfilling partner-specific mandates. Therefore, these datasets were not automatically compatible with the ecosystem scale assessments desired by the GBEP. These issues, coupled with a lack of standard formats for collected data and inconsistent quality assurance/quality control (QA/QC), decreased the availability and utility of the information.

Through coordinated efforts and the development of environmental indicators, the GBEP and its partners introduced data-tracking consistency. Creating the regional monitoring database, implementing better QA/QC, and engaging in a more collaborative approach to data sharing has allowed the GBEP and its partners to provide successful access to a broad cross-section of end users on environmental and programmatic successes. In the future, the GBEP and its partners will continue to enhance the system for tracking the implementation efforts of *GBP'18* and provide implementation updates to the public.

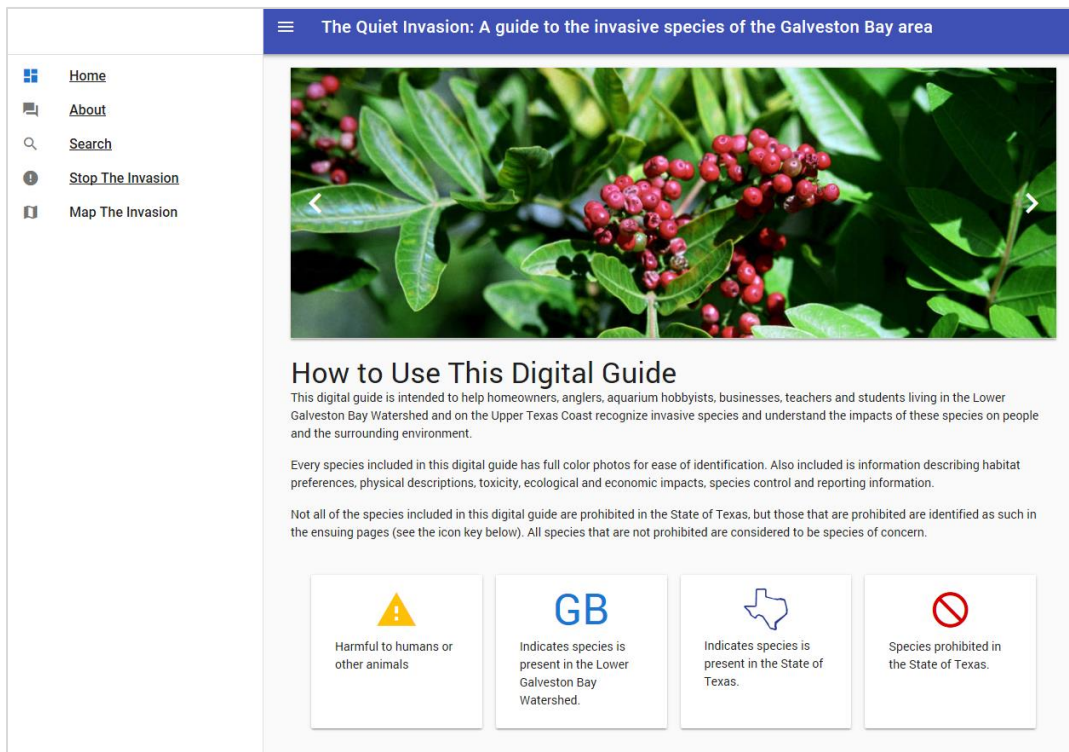## Example of Access to Information Action Implementation

The GBEP provides access to information that can be used to improve understanding of the Galveston Bay ecosystem and disseminates relevant data to partners, research institutions, stakeholders, and the public. This is accomplished in part through public awareness initiatives, such as Back the Bay, Cease the Grease, and Pump Don't Dump, and through larger regional projects, such as the Regional Monitoring Database, which provides web-based data access. More information on the Regional Monitoring Database is given in the Regional Monitoring Plan that begins on page 145.

Another successful example of increased data access for a broad cross-section of audiences is the Invasive Species Work Group (ISWG). In 2001, the NRU subcommittee of the Council formed ISWG after a review of *GBP'95*

elevated certain activates to a high-priority status. The ISWG comprises invasive species experts and stakeholders, acting as a coordinating body for invasive species management activities.

In 2004, the Galveston Bay Invasive Species Risk Assessment was completed by the Environmental Institute of Houston and HARC. The risk assessment identified 296 species (including 166 plant species) as current and potential invaders of the lower portion of the Galveston Bay watershed. Each species was ranked according to ecological risk by a group of experts. The risk assessment also outlined a series of recommendations to enhance prevention and control of invasive species, including large-scale public outreach and education efforts, programs restoring aquatic habitats degraded by invasive species, and general invasive species research related to impacts by invasive species.

Since 2005, ISWG has completed several successful invasive species research, control, and education efforts. A direct outcome of the ISWG was the GBEP's funding of two invasive species field guides. *The Quiet Invasion: A Guide to Invasive Plants of the Galveston Bay Area* was created in 2006, and *The Quiet Invasion: A Guide to Invasive Animals of the Galveston Bay Area* was created in 2010 by the HARC.

Screenshot of the digital format invasive species field guide.

These pocket-sized field guides are designed to help gardeners, land managers, and landscape architects identify invasive plants and animals that can be harmful to local habitats. The plant guide suggests native species alternatives which are better choices for planting, providing access to key ecological data in an easy-to-read format. In 2017 these efforts were updated through a partnership between the HARC and TPWD to a digital format. More information about efforts to remove invasive species is given on page 85.

The GBEP and its partners facilitate technical workshops for professional organizations to disseminate important information that can be used to inform the public. Presentations are given to the Council quarterly to keep agencies, industries, and organizations involved with preserving Galveston Bay abreast of research and current conditions. This information is distributed within Council members' entities where they can provide updates to their stakeholders. Presentations are given to a broad-based audience at universities, symposia, and conferences. The GBEP updated their website in 2018 to house GBEP-funded final reports, one-page project summaries, presentations, and links to research related to the Galveston Bay ecosystems. These resources provide access to the most current information available.
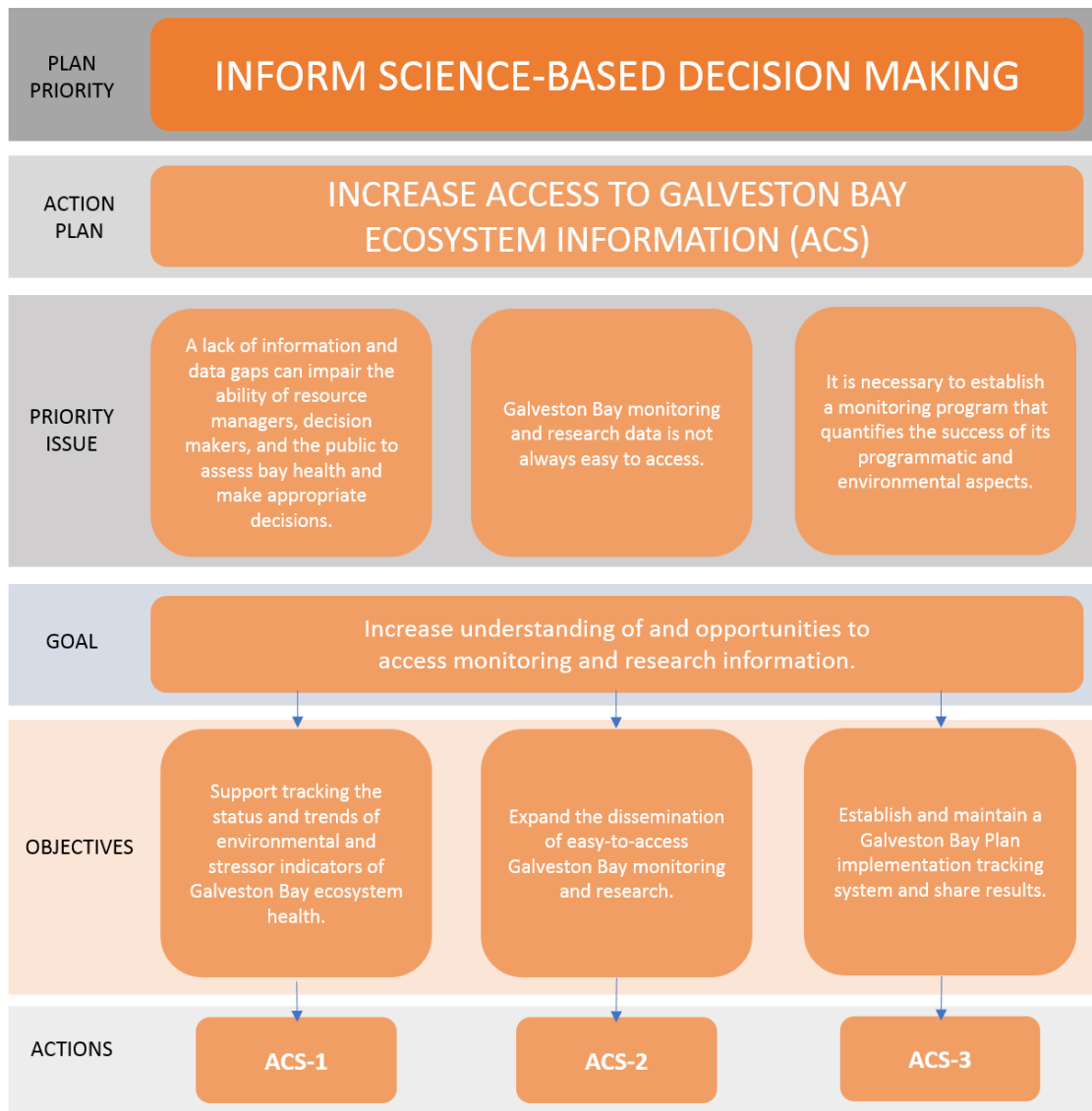
Action Plan Overview

The ACS Action Plan includes three Actions to increase understanding of and access to monitoring and research information in Galveston Bay. First, continue supporting the development and tracking of the GBEP's Regional Monitoring Database in collaboration with local research institutions and organizations (**ACS-1**). Second, disseminate monitoring and research results using a variety of outreach tools tailored to each audience (**ACS-2**). Third, track implementation of Actions identified in *GBP'18* and share with the Council and stakeholders (**ACS-3**). All three Actions support all Plan Priorities in *GBP'18* by providing support data- and tracking-implementation efforts.

FIGURE 32
ACS ACTION PLAN MATRIX

ACTION PLANS AND CORRESPONDING ACTIONS			PLAN PRIORITIES			
			Ensure Safe Human and Aquatic Life Use	Protect and Sustain Living Resources	Engage Communities	Inform Science-Based Decision Making
Action Plan: Increase Access to Galveston Bay Ecosystem Information (ACS)						
	ACS-1	Tracking Ecosystem Health Indicators	x	x	x	x
	ACS-2	Access to Monitoring and Research Data	x	x	x	x
	ACS-3	Track Galveston Bay Plan Implementation	x	x	x	x

FIGURE 33
INCREASE ACCESS ACTION PLAN

PLAN PRIORITY	INFORM SCIENCE-BASED DECISION MAKING

ACTION PLAN	INCREASE ACCESS TO GALVESTON BAY ECOSYSTEM INFORMATION (ACS)

PRIORITY ISSUE	A lack of information and data gaps can impair the ability of resource managers, decision makers, and the public to assess bay health and make appropriate decisions.	Galveston Bay monitoring and research data is not always easy to access.	It is necessary to establish a monitoring program that quantifies the success of its programmatic and environmental aspects.

GOAL	Increase understanding of and opportunities to access monitoring and research information.

OBJECTIVES	Support tracking the status and trends of environmental and stressor indicators of Galveston Bay ecosystem health.	Expand the dissemination of easy-to-access Galveston Bay monitoring and research.	Establish and maintain a Galveston Bay Plan implementation tracking system and share results.

ACTIONS	ACS-1	ACS-2	ACS-3

ACS-1

Track Ecosystem Health Indicators

Objective: Support tracking the status and trends of environmental and stressor indicators of Galveston Bay ecosystem health.

Priority Issue: A lack of information and data gaps can impair the ability of resource managers, decision makers, and the public to assess bay health and make appropriate decisions.

Description: The GBEP and its partners are obtaining, analyzing, and synthesizing routine monitoring data sources and determining the status and trends of Galveston Bay indicators, parameters, and stressors directly related to the health and sustainability of the bay. Results are shared in formats that increase access and understanding.

Implementation location: Lower Galveston Bay watershed.

ACTIVITIES	TIMEFRAME AND OUTPUT(S)	IMPLEMENTATION COST
Support and promote the Galveston Bay Regional Monitoring Database (formerly called Status and Trends).	Within 2-5 years, update the Galveston Bay Regional Monitoring Database, post data to the website.	$0 - $200,000
Support regional monitoring and data reporting efforts.	Within 2-5 years, support continuation of the annual *Galveston Bay Report Card.*	$0 - $200,000
Create the *State of the Bay Report.*	Within 5-10 years, create the *State of the Bay Report*	$0 - $200,000
Evaluate the need to update *GBP'18*.	Within 5-10 years, review Galveston Bay indicators data and determine if new information indicates the need for any updates to *GBP'18*.	$0 - $200,000
Evaluate the need to revise *GBP'18*.	Within 10-plus years, review Galveston Bay indicators data and determine if new information indicates the need for any revisions to *GBP'18*.	$0 - $200,000

POTENTIAL IMPLEMENTERS

GBEP   Various Industry Partners

PERFORMANCE MEASURES

1. Galveston Bay Regional Monitoring Database completed.
2. Annual *Galveston Bay Report Card* completed.
3. State of the Bay reports completed.
4. Assessment of the Galveston Bay indicators data completed.

REFERENCES

GBP'95: RSC-3
SAP Reference: Monitoring and Research: Goal 2 / Objective A / Objective B

ACS-2

Provide Access to Monitoring and Research Data

Objective: Expand the dissemination of easy-to-access Galveston Bay monitoring and research.

Priority Issue: Galveston Bay monitoring and research data is not always easy to access.

Description: The GBEP and its partners are disseminating monitoring and research results through a variety of outreach activities for different audiences, including the GBEP partners, decision makers, bay user groups, and the public.

Implementation location: Lower Galveston Bay watershed.

ACTIVITIES	TIMEFRAME AND OUTPUT(S)	IMPLEMENTATION COST
Continue the State of the Bay Symposia.	Within 2-5 years, host a State of the Bay Symposium.	$0 - $200,000
Collect data and create a data and mapping research hub (database).	Within 2-5 years, collect research data and use it to create a data and mapping research hub (database).	$200,000 - $1 Million
Support the development of white papers, technical presentations, and workshops.	Within 2-5 years, provide support on the development of white papers, technical presentations, and workshops (number TBD).	$0 - $200,000
Create the *State of the Bay Report.*	Within 5-10 years, use research data to create the *State of the Bay Report.*	$0 - $200,000
Evaluate the need to update *GBP'18*.	Within 5-10 years, review new monitoring and research data and determine if new information indicates the need for any updates to *GBP'18*.	$0 - $200,000
Create a research synthesis report.	Within 10-plus years, use research data to create a research synthesis report, an annotated bibliography of new research on Galveston Bay.	$0 - $200,000
Evaluate the need to revise *GBP'18*.	Within 10-plus years, review new monitoring and research data and determine if new information indicates the need for revisions to *GBP'18*.	$200,000 - $1 Million

POTENTIAL IMPLEMENTERS

Galveston Bay Foundation
GBEP
HARC
Texas A&M University

Texas Parks and Wildlife Department
Various Industry Partners
Various Research Institutions, Agencies, and Nonprofit Organizations

PERFORMANCE MEASURES

1. Mapping research database completed.
2. Improved access to monitoring and research database.
3. Research synthesis report completed.
4. Number of visits to web-based resources.

REFERENCES

GBP'95: RSC-3
SAP Reference: Monitoring and Research: Goal 2 / Objective

ACS-3

Track Galveston Bay Plan Implementation
Objective: Establish and maintain a Galveston Bay Plan implementation tracking system and share results.

Priority Issue: It is necessary to establish a monitoring program that quantifies the success of its programmatic and environmental aspects.

Description: The actions of the GBEP and its partners toward CCMP implementation will be tracked and shared with the Council and stakeholders. Implementation results, in addition to ecosystem, socioeconomic, and other indicators of bay health, will be evaluated and the need to update or revise *GBP'18* determined.

Implementation location: Lower Galveston Bay watershed.

ACTIVITIES	TIMEFRAME AND OUTPUT(S)	IMPLEMENTATION COST
Establish an implementation- tracking system.	Within 2-5 years, create tracking system in coordination with stakeholders	$0 - $200,000
Share results at State of the Bay Symposia.	Within 5-10 years share results.	$0 - $200,000
Incorporate results into the *State of the Bay Report*.	On a cycle of every 5-10 years, use implementation data to create the *State of the Bay Report*.	$0 - $200,000
Assess the need for updating *GBP'18*.	Within 5-10 years, evaluate the need to update, then if needed, update *GBP'18*.	$0 - $200,000
Assess the need for revising *GBP'18*.	Within 10-plus years, evaluate the need to revise, then if needed, revise *GBP'18*.	$200,000 - $1 Million

POTENTIAL IMPLEMENTERS

GBEP

PERFORMANCE MEASURES

1. Development of a plan implementation tracking system completed.
2. Evaluation of the need to update or revise The Galveston Bay Plan completed.

REFERENCES

GBP'95: Regional Monitoring Plan
SAP Reference: N/A