#### **FINAL REPORT**

## Galveston Bay Seafood Advisory Education Campaign Contract No. 14-082-000-7950 Subrecipient: Galveston Bay Foundation

October 1, 2013 – December 19, 2014

#### Overview

The Galveston Bay Foundation (GBF) completed the *Galveston Bay Seafood Advisory Education Campaign*, a project funded through a Texas Coastal Management Program (CMP) Cycle 18 grant and administered by the Texas General Land Office.

The purpose of campaign was to follow up on the Cycle 15 Harris County Seafood Consumption Advisory Public Education Campaign and educate additional Galveston Bay area subsistence ad recreational fishermen about the risks of human consumption of seafood contaminated with toxic substances. Emphasis was placed on reaching subsistence fishermen since most protein in their diet is dependent on local fish and shellfish. Geographic emphasis was focused in low income areas in the eastern part of the precinct that have a high percentage of Spanish-speaking immigrants from Mexico and South America. Given the effectiveness of reaching people where they fish, funds were to be expended primarily on signs as opposed to other outreach methods such as printed flyers.

The intent of the original CMP Cycle 18 proposal was for GBF to place additional pairs of English and Spanish signs at priority locations on the waterways covered by the following advisories:

- ADV-3 (1990): HSC/San Jacinto River and contiguous waters downstream of Hwy. 90 and Upper Galveston Bay north of a line from Red Bluff Pt. to Five Mile Cut Marker to Houston Pt. due to presence of dioxin in blue crabs and catfish.
- ADV-20 (2001): HSC and contiguous waters upstream of Lynchburg Ferry and San Jacinto River downstream of Hwy. 90 bridge due to presence of dioxin, organochlorine pesticides, and PCBS in all species of fish.
- ADV-28 (2005): HSC/San Jacinto River and contiguous waters downstream of Hwy. 90
  and Upper Galveston Bay north of a line from Red Bluff Pt. to Five Mile Cut Marker to
  Houston Pt. due to presence of PCBs in spotted seatrout.
- ADV-35 (2008): Galveston Bay system and contiguous waters due to the presence of dioxin and PCBs in all species of catfish and spotted seatrout.
- ADV-37 (2009): Clear Creek upstream and west of Clear Lake due to the presence of PCBs in all species of fish.

All of these areas were deemed critical due to the fact that in each children under the age of 12 and women who are nursing, pregnant, or could become pregnant are advised not to consume any amount of the species listed. However, the HSC and contiguous waters upstream of Lynchburg Ferry and San Jacinto River downstream of Hwy. 90 and Clear Creek upstream of Clear Lake were of particular concern because all species of fish are covered by the advisories.

Given this, GBF focused sign placement on the following stream reaches:

- San Jacinto River tidal waters upstream of Wallisville Road to Highway 90.
- HSC and contiguous tidal waters upstream of the confluence with the San Jacinto River.
- Clear Creek tidal waters upstream of Clear Lake.
- Additional critical areas as identified.

However, \$5,390 was awarded out of the requested \$39,600. While GBF was grateful for the awarded amount, the quantity of sign materials that could be purchased was diminished. Therefore, GBF focused the use of Cycle 18 funds on filling in gaps in areas where Cycle 15 signs were installed and placing additional signs on the HSC and contiguous tidal waters upstream of the confluence with the San Jacinto River and, if the budget allowed, on the San Jacinto River tidal waters upstream of Wallisville Road to Highway 90.

However, another development further reduced the number of signs that GBF would be able to place in new locations. In June 2013, the Texas Department of State Health Services (TDSHS) issued a new advisory that superceded ADV-3 and ADV-28:

ADV-49 (2013): The Houston Ship Channel and all contiguous waters north of the Fred Hartman Bridge (Hwy. 146), including the San Jacinto River below the Lake Houston Dam due to the presence of dioxin, organochlorine pesticides and PCBs in all species of fish and blue crabs.

Therefore, the signs installed using CMP Cycle 15 funds at locations on the HSC downstream of Lynchburg Ferry and upstream of the Fred Hartman Bridge (Hwy. 146) needed to be replaced with new signs that indicated all species of fish and blue crab were covered in this reach by the new ADV-49, rather than just spotted seatrout, catfish and blue crab as was covered under the old ADV-3/ADV-28.

As a result of the reduced funding and the new advisory, we not only had to drop our initial goal of placing signs on Clear Creek, but also on the San Jacinto River upstream of Wallisville Road. That being said, GBF feels the effort was successful:

With the CMP Cycle 18 funds and GBF match, GBF purchased the following sign materials for this project:

- 33 30"x 30" aluminum signs with graffiti film for ADV-49 locations upstream of the Fred Hartman Bridge
- 31\* 10' aluminum posts
- 30\* metal post domes
- 54\* mounting brackets (2 needed per sign)

<sup>\*</sup>Note: the number of posts, domes, and brackets do not match the number of signs purchased, as we had planned inventory left over from the Cycle 15 grant.

With the materials purchased with Cycle 18 funds and GBF match and the remaining sign materials from the Cycle 15 grant, GBF and its in-kind partners installed a total of 46 signs at 23 sign locations on 14 sites:

- 1. Brays Greenway Park, Houston (2 new locations)
- 2. Brays Bayou at confluence of Houston Ship Channel, Houston (new location)
- 3. Milby Park on Sims Bayou, Houston (2 new locations)
- 4. Memorial Park, Pasadena (2 new locations)
- 5. North Richey Street Bridge over Vince Bayou, Pasadena (new location)
- 6. Santa Anna Capture Site, Pasadena (new location)
- 7. River Road right-of-way just west of Riverside Inn Marina, Channelview (new location)
- 8. River Road at Brookshire Street, Channelview (new location)
- 9. River Terrace Park, Channelview (replace stolen signs at one location)
- 10. GBF Burnet Bay Restoration Site Peninsula, Baytown (replace signs at 1 location due to new advisory)
- 11. GBF Burnet Bay Restoration Site South, Baytown (new location)
- 12. Lynchburg Ferry North, Baytown (1 new location at existing site)
- 13. San Jacinto Battleground State Historic Site, La Porte (replace signs at 2 locations due to new advisory)
- 14. Baytown Nature Center, Baytown (replace signs at 6 locations due to new advisory)

See Attachment 1 for complete details on all signs installed with Cycle 18 grants.

Of these, there are 9 new sign locations at 6 sites on the HSC and contiguous tidal waters upstream of the confluence with the San Jacinto River (see Attachment 2 for map). In order to fill in gaps in the area where GBF previously placed signs with Cycle 15 funds, there are 2 new sign locations at 2 sites on River Road in Channelview (see Attachment 3 for map), as well as 1 new sign location at 1 site on Burnet Bay South and 1 new sign location at the existing Lynchburg Ferry North Landing site (see Attachment 4 for map). GBF also replaced a set of stolen signs at River Terrace Park in Channelview (see Attachment 5 for map). This site is very popular with fishermen and worthy of replacement.

Finally, as mentioned above, GBF replaced signs at locations on the HSC downstream of Lynchburg Ferry and upstream of the Fred Hartman Bridge (Hwy. 146) to reflect all species of fish and blue crab covered by the new ADV-49, rather than just spotted seatrout, catfish and blue crab covered under the old ADV-3/ADV-28. These included 1 location at the Burnet Bay Peninsula site (Attachment 4), 6 locations at the Baytown Nature Center site (Attachment 6) and 2 locations at the San Jacinto Battleground State Historic Site (Attachment 7).

Attachment 8 contains photos of all the signs placed with Cycle 18 funds, with the exception of one Spanish language sign at the San Jacinto Battleground State Historic Site. That sign was stolen in the intervening time between its placement and GBF taking a photo of it. GBF will replace this sign at its own cost, as we have done with other seafood advisory signs that were installed with Cycle 15 funds.

In addition, GBF updated its Seafood Consumption Advisories webpage at <a href="http://galvbay.org/how-we-protect-the-bay/taking-action/seafood-consumption-advisories/">http://galvbay.org/how-we-protect-the-bay/taking-action/seafood-consumption-advisories/</a> to reflect the changes to the TDSHS advisories.

### **Completed Tasks**

### Task 1. Prioritize Sign Placement

GBF developed a prioritized list of popular recreational fishing areas and other areas known to be fished by subsistence fishermen on waterways in the following stream reaches, for potential sign installation on the following reaches:

- 1. San Jacinto River tidal waters upstream of Wallisville Road to Highway 90.
- 2. HSC and contiguous tidal waters upstream of the confluence with the San Jacinto River.
- 3. Clear Creek tidal waters upstream of Clear Lake.
- 4. Additional critical areas as identified.

As noted above, based on the limited budget and changes to seafood consumption advisories, GBF chose to use Cycle 18 funds to install signs, filling in gaps in areas where Cycle 15 signs were installed and place additional signs on the HSC and contiguous tidal waters upstream of the confluence with the San Jacinto River (Attachment 1).

GBF revised the wording and design for the English and Spanish signs to emphasize risks to children and women, and added wording about toxicants and health effects. GBF provided the designs to the GLO for review and approval prior to fabricating (Attachments 9 and 10).

### Task 2. Purchase and Install Signs

As noted above in the overview, GBF acquired sign materials (signs, posts, post domes and mounting brackets) and arranged to have them installed in priority locations that reflect the highest incidence of use/highest risk of consumption of contaminated seafood. GBF purchased and installed as many signs as the funding allowed and documented the installation of the signs (Attachment 8).

#### Task 3. Project Monitoring and Reporting

GBF submitted monthly progress reports and this final report.

#### **Lessons Learned and Recommendations**

The signs are very visible to fishermen, based on the number of phone calls GBF has received since installation. However, it is not uncommon to see people fishing and crabbing immediately adjacent to the signs or even using the signs to prop their fishing poles or tie off their bait buckets or crab traps. Individuals will choose whether to follow the advisory language.

GBF recommends Texas Parks and Wildlife Department (TPWD) collaborate with TDSHS and consider working with retailers and other point-of-sale fishing license vendors to provide

supplements to TPWD's printed *Outdoor Annual*, which would better highlight fish consumption advisories and bans to recreational fishermen. Currently, fisherman can find the information at the end of the fishing regulation section, but the information would be more visible if located next to the bag and length limits table for saltwater. We also recommend that TPWD include the website address of their own Fish Consumption Bans and Advisories webpage (<a href="http://tpwd.texas.gov/regulations/outdoor-annual/fishing/general-rules-regulations/fish-consumption-bans-and-advisories">http://tpwd.texas.gov/regulations/outdoor-annual/fishing/general-rules-regulations/fish-consumption-bans-and-advisories</a>) in the printed version of the *Outdoor Annual*. It is very user-friendly and, in our opinion, easier to navigate than TDSHS' Seafood And Aquatic Life Group webpage (http://www.dshs.state.tx.us/seafood/).

### Conclusion

GBF feels that the Seafood Consumption Advisory Public Education Campaign was successful in reaching fishermen; however, a greater effort is needed to reach the broader bay-wide audience via other media. For localized efforts aimed at subsistence fishermen, signs can be effective.

### Galveston Bay Seafood Advisory Education Campaign Contract No. 14-082-000-7950-18 Sign Installations

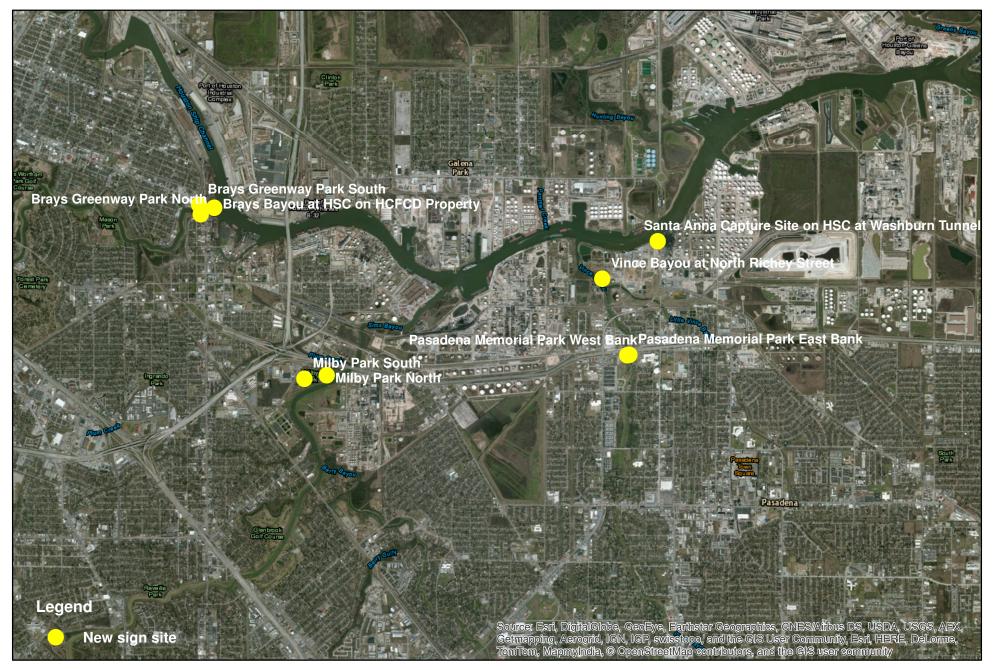
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Site	Jurisdiction	Address	City	Specific Location of Sign(s)	Number of Sign Locations at this Site			Number of Posts Needed	Dome Caps	Number of Brackets Needed	Notes
Site	Jui ISUICTION	Auuress	City	Sign(8)	uns site	English	iii opanisii	iveeueu	iveeded	iveeded	INOTES
Brays Greenway Park North and South - Brays Bayou at HSC upstream of				Adjacent to parking lot							
Broadway Street	City of Houston	8001 Hockley Street	Houston	and at shoreline	2	2	2	4	4	8	New site
Brays Bayou at HSC downstream of Broadway Street	HCFCD	Brays Bayou just downstream of Broadway Street	Houston	Adjacent to road where fishermen park	1	1	1	2	2		New site
Sueet	ПСРСИ	DIOAGWAY Street	HOUSTON	nsnermen park	1	1	1	2	2	4	INEW SILE
Milby Park North and South on Sims Bayou	City of Houston	2001 Centrral	Houston	Adjacent to the 2 parkling lots	2	2	2	4	4	8	New site
Pasadena Memorial Park East Bank and West Bank on Vince Bayou	City of Pasadena	85 East Holly Street	Pasadena	South of gazebo on the east side of bayou and on west side of bayou	2	2	2	4	4	8	New site
Vince Bayou at N.		Vince Bayou at N.		North bank west of street							
Richey St.	HCPCT2	Richey St.	Pasadena	by monument	1	1	1	2	2	4	New site
Santa Anna Capture Site (HSC south shoreline just upstream of Washburn Tunnel	HCPCT2	North Shaver Street at HSC	Pasadena	Bulkhead	1	1	1	2	2	4	New site

### Galveston Bay Seafood Advisory Education Campaign Contract No. 14-082-000-7950-18 Sign Installations

Site	Jurisdiction	Address	City	Specific Location of Sign(s)	Number of Sign Locations at this Site		Number of Signs Upstream of Fred Hartman Bridge - in Spanish	Number of Posts Needed	Number of Dome Caps Needed	Number of Brackets Needed	Notes
River Road ROW just west of Riverside Inn		River Road ROW just west of Riverside Inn									
Marina	HCPCT2	Marina	Channelview	HCPCT2 right of way	1	1	1	2	2		New site
River Road at		Brookshire Street at									
Brookshire Street	HCPCT2	San Jacinto River	Channelview	HCPCT2 right of way	1	1	1	2	2		New site
River Terrace Park North Bulkhead	HCPCT2	16550 Market Street	Channelview	North end of bulkhead near covered pavillion; south end of bulkhead at boat ramp; west side of footbridge at bayou	1	1	1	1	1	2	Replaced stolen signs at the porth bulkhead.
GBF Burnet Bay Restoration Site - Peninsula	HCPCT2	Lynchburg Road north of Lynchburg Ferry, at "peninsula"	Baytown	Peninsula	1	1	1	2	2		Had to replace signs due to ADV- 49. Placed on existing posts.
Peninsula	HCPC12	reny, at peninsula	Baytown	Peninsula	'	'	l l	2	. 2		49. Placed on existing posts.
GBF Burnet Bay Restoration Site - South	НСРСТ2	Lynchburg Road north of Lynchburg Ferry	Baytown	South end	1	1	1	2	2	4	New site
Lynchburg Ferry North	НСРСТ2	1001 South Lynchburg	Baytown	North ferry landing	1	1	1	2	2		Added 1 new sign location at

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Site	Jurisdiction	Address	City	Specific Location of	Number of Sign Locations at	of Fred Hartman Bridge - in	Number of Signs Upstream of Fred Hartman Bridge - in Spanish		Dome Caps	Number of Brackets Needed	Notes
San Jacinto Battleground State Historic Site North Marsh Trailhead and South Marsh Trailhead		3523 Independence Parkway South	La Porte	north marsh trailhead; south marsh trailhead	2	2	2	4	4	8	Had to replace signs due to ADV-49. Placed on existing posts.
Baytown Nature Center - Bayshore Drive, Piers 1-4, and Rec Area		6213 Bayway Drive	Baytown	Four fishing piers (San Jacinto Point, Crystal Bay, 2 on Burnet Bay in rec. area) and along Bayshore Drive from entrance to San Jacinto Point	6	6	6	0	0	0	Had to replace signs due to ADV-49. Placed on existing posts.
				Totals	23	23	23	33	33	66	





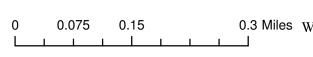
# **Attachment 2**

0 0.5 1 2 Miles











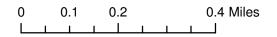




The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was

produced. This map IS NOT suitable for navigational purposes and does not purport to depict or establish boundaries between

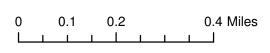
private and public land.







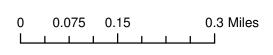








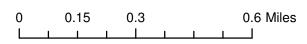






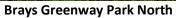














**Brays Greenway Park South** 



Brays Bayou at HSC









Pasadena Memorial Park West Bank



Vince Bayou at North Richey Street



**Santa Anna Capture Site** 



**River Road West of Riverside Inn Marina** 



**River Road at Brookshire Street** 



**River Terrace Park North Bulkhead** 



**Burnet Bay Restoration Site - Peninsula** 



**Burnet Bay Restoration Site - South** 



**Lynchburg Ferry North** 



San Jacinto Battlefield North Marsh \*Spanish sign stolen



San Jacinto Battlefield South Marsh



**Baytown Nature Center Bayshore Drive** 







**Baytown Nature Center 1** 

**Baytown Nature Center 2** 

**Baytown Nature Center 3** 



**Baytown Nature Center 4** 



**Baytown Nature Center Rec Area** 

### DANGER!

The Texas Department of State Health Services has issued a Seafood Consumption Advisory for this water body due to the presence of toxic pollutants in seafood!

Women of childbearing age and children under the age of 12: DO NOT EAT ANY FISH OR BLUE CRAB!

> Women past childbearing age and adult men: DO NOT EAT MORE THAN 8 OUNCES OF ANY FISH OR BLUE CRAB PER MONTH!

















### iPELIGRO!

¡El Departamento Estatal de Servicios de Salud de Texas lanzó una advertencia de consumo de mariscos para esta masa de agua debido a la presencia de contaminantes!

Mujeres fértil y niños menores de 12 años: NO COMER NINGÚN PESCADO o JAIBA AZUL!

Mujeres que ya no estén fértil y hombres adultos: NO COMER MÁS DE 8 ONZAS DE PESCADO o JAIBA AZUL!









