



March 31, 2016

General Land Office

Resource Management Program Area

1700 N. Congress Avenue, Room 617

Austin, TX 78701-1495

Attn: Ms. Melissa Porter and Ms. Julie McEntire

Re: Cease the Grease Campaign

GLO Contract No. 15-046-000-8391

Final Report

Dear Ms. Porter:

Enclosed please find the final report for the Cease the Grease Campaign project. GBF is very excited with what was accomplished during the first cycle of this project and we thank you for your continued feedback and encouragement.

Please feel free to call me at (281) 332-3381 ext. 215 with any questions you may have regarding the project. We are currently preparing the final invoice and the appropriate match documentation.

Again, thank you for your support. I look forward to working with you on future projects.

Sincerely,

A handwritten signature in black ink that reads "Charlene Bohanon".

Charlene Bohanon

Water Programs Manager

Enclosure: Final Report

Cease the Grease Campaign
GLO Contract # 15-046-000-8391

FINAL REPORT
Submitted: March 31, 2016

Prepared by:



17330 Highway 3
Webster, TX 77598
281-332-3381
www.galvbay.org

Prepared for:



A report funded by a Texas Coastal Management Program grant approved by the Texas Land Commissioner pursuant to National Oceanic and Atmospheric Administration award No. NA14NOS4190139.

Table of Contents

Project Description	3
Task 1. Facilitate Policy and Outreach Workgroup	4
Cease the Grease Workgroup	4
Task 2. Develop Marketing and Outreach Materials	6
Digital and Social Media Outreach Materials	6
Print Media, Education Booths, and Presentations	8
Task 3. Develop Distribution Plan	11
Associated Regional Organizations	11
Media Outlets and Distribution Schedule	13
Outreach Activities Schedule	17
Campaign Strategy Toolkit	20
Task 4. Track Campaign Progress	21
Marketing and Outreach Impressions	21
Change in Knowledge Levels	21
Performance Indicator Tracking	22
Conclusions and Lessons Learned	22
References	24
Appendices (download and save from temporary link)	25
I – Task 1 attachments	
II – Task 2 attachments	
III – Task 3 attachments	
IV – Task 4 attachments	

Project Description

Approximately 50% of Galveston Bay oyster waters are impaired for bacteria, based on the Texas Commission on Environmental Quality's Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast. The primary sources addressed in the Implementation Plan include insufficient treatment by wastewater treatment facilities and septic systems, sanitary sewer overflows, boat sewage dumping, and stormwater runoff. These impairments result in negative impacts to environmental and public health, as well as the economy.

Fats, oils, and grease (FOG) poured down the drain cause more than 50% of the sanitary sewer overflows (SSOs) in the Houston-Galveston region, and therefore are a source of concern for harmful bacteria found in Galveston Bay. Aging infrastructure, combined with improper disposal of FOG in single and multi-family homes, can lead to costly problems for both local governments and citizens in terms of sewer lines, home plumbing repairs, and environmental remediation. The Cease the Grease (CtG) Campaign is a regional campaign coordinated by the Galveston Bay Foundation (GBF), with the purpose of reducing sanitary sewer overflows through public education and awareness. This campaign is directed towards five target audiences: homeowners, apartment dwellers, schools, municipalities, and restaurants. The goal of the campaign is to educate these audiences to properly dispose of FOG, recycle used cooking oil, and properly maintain grease traps in restaurants to prevent harmful bacteria from polluting Galveston Bay.

GBF's CtG Campaign (CtGC) was originally adopted from Dallas Water Utilities, which very successfully launched the Cease the Grease Campaign in 2005 in partnership with the North Texas Grease Abatement Council. The Dallas Cease the Grease Campaign has dramatically reduced the occurrence of monthly SSOs in the Dallas area through public outreach, education, and enforcement. Dallas Water Utilities also uses the recycled cooking oil to create heat and electricity, which is then used to power the Southside Wastewater Treatment Plant. Dallas Water Utilities provided the campaign materials and concepts for Galveston Bay Foundation to adopt this campaign in the Galveston Bay region.

Throughout the CtGC, GBF has coordinated a regional effort amongst 23 key partners who represent regional and community stakeholders within the campaign volunteer workgroup. With stakeholder input, GBF was able to redesign specialized marketing material for our region, plan a schedule for campaign media distribution and citizen engagement, provide a Campaign Strategy Toolkit for future campaign partners, and track campaign progress through performance indicators such as: the number of yearly SSOs caused by FOG. This unified effort against FOG has allowed GBF and our partners to make hundreds of thousands of impressions upon regional citizens about proper disposal of FOG, and to begin a pilot oil recycling program that encourages communities to recycle their used cooking oil into a sustainable, cleaner energy source.

Funding from the Texas Coastal Management Program has played a key role in the distribution of the Cease the Grease Campaign messages by covering costs associated with marketing, education, outreach, pollution reporting and monitoring, and municipal partnerships. The CtGC has been well received in the Houston/Galveston community and GBF plans to continue coordinating and enhancing this regional project indefinitely.

Task 1: Facilitate Policy and Outreach Workgroup

CtGC Workgroup

A campaign workgroup was established to guide CtGC activities, and consisted of representatives from the Galveston Bay Estuary Program, Texas Coastal Watershed Program, Texas Sea Grant, H-GAC, Local KPRC News, several local municipalities, and other relevant watershed groups. The workgroup was formed in the last quarter of 2014, when the committee members were first solicited by invitation. Charriss York of the Texas Coastal Watershed Program was named the Workgroup Chair to represent stakeholder interests and campaign development. The workgroup was formed to develop and execute the campaign (**Figure 1**). The current workgroup consists of several pre-existing and reliable GBF partners, and GBF continually recruits new members in order to keep the CtGC ideas fresh and to expand campaign reach into new municipalities. This is done through a New Partner Packet created by GBF that introduces the campaign mission, explains the benefits of being a partner to the campaign effort, and provides sample distribution materials and giveaways. This packet is included in **Appendix I**. Participation in the workgroup is open to any interested parties. **Table 1** includes a list of the participating individuals during this grant cycle. The meeting schedule is included in **Table 2**.

The workgroup members contributed to the project in different ways. KPRC 2 Local News provides the business and telemarketing perspective to CtGC efforts and acts as an effective means to disseminate information and build campaign impressions in the community. The Cities of Pasadena, Friendswood, League City, and Nassau Bay have served as invaluable resources to the Cease the Grease campaign. These municipalities partner with GBF to personally attend outreach events, distribute educational materials and campaign giveaways, and provide GBF with valuable outreach information and community knowledge. Their experience in their communities allows GBF to continually hone the CtGC's outreach strategy and reach our target audiences. Municipalities are one of the campaign's target audiences, as the campaign could not be successful without their partnership in outreach and distribution. These workgroup members provide input about how GBF can enhance the campaign, communicate with our partners, and develop materials and outreach distribution strategies. Workgroup members such as H-GAC and WCIDs assist the CtGC in acquiring performance indicators, such as line cleaning data, grease trap inspections, and sanitary sewer overflows caused by fats, oils, and grease.

The most valuable result of establishing this workgroup has been the fact that GBF has a group of committed stakeholders from the multiple local municipalities and watershed programs that are always available to bounce ideas off of and to give feedback on outreach and



Figure 1. Cease the Grease Campaign Workgroup at 2.2.16 meeting.

distribution efforts. In addition, their input led to the creation of a monthly newsletter (described below) to keep constant communication between the workgroup and GBF. During this funding cycle, **organizational representation at the workgroup meetings was generally over 50%** which is good considering the members are representative of an expansive region. In addition, **79% of the organizations were directly involved in assisting with campaign tasks**, such as assembling and distributing education packets, connecting GBF to audiences for giving presentations, implementing the campaign in their business or municipality, providing technical assistance for mass-marketing outreach campaigns, etc. The performance indicators used during this funding cycle were approved by the workgroup, and can be downloaded and saved from **Appendix I**. The measured results corresponding to these indicators are addressed throughout this final report in the appropriate sections.

Table 1. List of workgroup members

Organization	Contact	Email
Bayou Preservation Association	Amanda Brown	abrown@bayoupreservation.org
Citizens Environmental Coalition of Houston	Rachel Powers	rachel@cechouston.org
City of Friendswood	Catharine Gray	cgray@friendswood.com
City of Houston - Corral the Grease	Bill Goloby	bill.goloby@houstontx.gov
City of La Porte	Pam Kroupa	kroupap@laportetx.gov
City of League City	Susie Blake	susie.blake@leaguecity.com
City of Nassau Bay	Paul Lopez	paul.lopez@nassaubay.com
City of Pasadena	Bianca Locke	blocke@ci.pasadena.tx.us
	Luz Locke	llocke@ci.pasadena.tx.us
Dickinson Bayou Watershed Partnership/TX Coastal Watershed Program	Charriss York	cyork@tamu.edu
Double Bayou Watershed Partnership/Shead Conservation Solutions	Linda Shead	linda.shead@sheadconservation.com
Galveston Bay Estuary Program	Lisa Marshall	lisa.marshall@tceq.texas.gov
Galveston Bay Foundation	Sarah Cunningham/Neally Rhea	scunningham@galvbay.org
	Charlene Bohanon	cbohanon@galvbay.org
Houston-Galveston Area Council	Kathy Janhsen	kathy.janhsen@h-gac.com
	Justin Bower	Justin.bower@h-gac.com
Houston Wilderness		
KPRC 2 Click 2 Houston	John Rizzuti	jrizzuti@kprc.com
	Angelica Luna	aluna@kprc.com
Texas Coastal Watershed Program	Celina Gauthier Lowry	celina.lowry@tamu.edu
Texas Coastal Watershed Program	Charriss York	cyork@tamu.edu
WCID #12	Ed Linck	felinck@linckrefy.com

	Derrill Mallett	derrill@risingtidenewmedia.com
--	-----------------	--------------------------------

Table 2. Workgroup meeting schedule

Workgroup Meeting	Workgroup Meeting Location	Workgroup Member Attendance
September 10, 2014	City of Nassau Bay City Hall	100% plus four more attendees
December 10, 2014	City of Nassau Bay City Hall	50%
March 11, 2015	City of Nassau Bay City Hall	79%
June 23, 2015	City of Nassau Bay City Hall	64%
October 27, 2015	City of Nassau Bay City Hall	71%
February 2, 2016	City of Nassau Bay City Hall	67%

Task 2: Develop Marketing and Outreach Materials

Marketing and outreach materials were adopted from the City of Dallas - Dallas Water Utilities, and were customized to fit the Houston/Galveston region throughout continuous content and materials development. These materials were developed for all of the various outlets the campaign utilizes, including video, radio, social media, TV broadcasting, fliers, postcards, giveaways, door hangers, holiday-themed, and much more.

Digital and Social Media Outreach Materials

A huge component to the mass-media outreach strategy of this campaign is to utilize digital and social media in a targeted, specific manner. Much effort and workgroup involvement was given towards these materials, as they are the materials that reach the most people. Multiple graphics were designed, along with specific hashtags and educational one-liners that were developed for the graphics and distributed with the Campaign Marketing Strategy Toolkit (this will be discussed in more detail in **Task 3**). Graphics were developed with stakeholder input as educational series about the problems caused by fats, oils, and grease; or as holiday-themed campaign messaging. All of these graphics worked to catch the audiences' eyes, inform the audience about FOG, draw the audience to investigate the campaign website, and to inspire the audience to take action against FOG by changing behavior.

KPRC Channel 2 played a huge roll in the development of campaign video spots, YouTube Pre-rolls, and radio PSA ads. Videos were developed and run on the local morning news and placed as YouTube Pre-rolls throughout specific holidays. Similarly, radio ads were implemented during holiday seasons as well, in 7 second and 30 second spots. Videos and radio PSA scripts were both made in normal and holiday-themed segments, so they could be used with specificity and intention as GBF conducted CtGC mass-media outreach. These videos and radio PSA scripts can be found in **Appendix II**. GBF partnered with KPRC to advertise the campaign in 2014 and 2015 using YouTube pre-roll video ads and video ads on Channel 2 News over Christmas holiday and New Year's. During the 2014 holiday soft launch, videos reached 255,725 impressions on the local morning news, and YouTube pre-roll videos reached 33,456 impressions. **During the 2015 holiday season, campaign videos on local morning news reached 601,000 impressions, and YouTube pre-roll video ads reached 126,698 impressions. This impressions data displayed a 135% increase for news impressions, and a 279% increase for YouTube pre-roll video impressions from 2014 to 2015 holiday mass-media campaigns.**

GBF developed multiple social media campaigns, which were carried out throughout the course of this grant cycle. Ten social media graphics were formatted for both Facebook and Twitter, and include myths and tips about FOG, where to recycle used cooking oil, best management practices, and an invitation to visit the www.ceasethegrease.net. These social media graphics can be found in **Appendix II**, along with several examples, such as **Figures 2 and 3**. These graphics were designed by GBF with the intention of grabbing the audience's attention, directing them to the website, informing and educating them about FOG, and providing specific calls-to-action, such as proper FOG disposal and FOG recycling. These social media graphics are meant to act as a conversation starter in the bigger dialogue about FOG in the Houston/Galveston region, and how improper disposal of FOG can lead to poor water quality in Galveston Bay.



Figure 2. Twitter social media graphic showing the audience that running hot water while pouring FOG down the drain does not prevent clogs.

GBF also developed a website for the CtGC, which allows regional target audiences to interact with campaign messaging while gathering information about the campaign mission, locations to recycle used cooking oil, partners associated with the campaign, and much more. Initially, GBF created a landing page for the campaign in the second quarter of 2014 and debuted a preliminary site for July 4th, 2015. With the assistance of a web developer and KPRC, this one page developed into a full-fledged website containing 9 pages and loads of campaign information, in the second quarter of 2015. **GBF has recorded a total of 885 sessions (active engagement) in the website from 758 users with 1,719 individual page views.** Website activity spikes during planned mass media communications. In comparison to just last quarter, GBF tracked a **28% increase in the number of page views** of www.ceasethegrease.net, and a **45% increase in the number of site users**. GBF feels positively about the success of the website, and will continue to work with the developer to incrementally enhance the website as feedback is received from



Figure 3. Facebook social media graphic showing the audience where to find the nearest oil recycling station in Houston.



Figure 4. Web banner graphic developed by GBF.

the workgroup. The website acts as a resource for the audience and for GBF. When a new digital graphic is developed, we use it on the CtGC website first and then offer it to partners for their use. An example of this can be seen in **Figure 4**. The new graphic is now displayed on the website, and offered to partners and workgroup members. Currently, CtGC partners and workgroup members have access to graphics via Dropbox. However, GBF's vision for the website is for it to act as a resource to not only community members looking for information about FOG, but also to potential and current partners who wish to access the Campaign Strategy Toolkit and its associated graphics. GBF hopes to work towards housing partner materials on the website, similar to the Back the Bay Campaign (www.backthebay.org), run by TCEQ's Galveston Bay Estuary Program.



Print Media, Education Booths, and Presentations

Print media and educational activities developed for

outreach events played a huge roll in the CtGC's first grant cycle being effective with face-to-face outreach. GBF and workgroup members have worked very closely together to be intentional and thoughtful about CtGC print media for distribution. In this day and age, print media is slowly becoming more and more obsolete within our technologically-focused society. Due to this fact, campaign strategies for print media have been very targeted and made with usefulness in mind. GBF has developed a book mark (**Figure 5**) for cookbooks that contains campaign messaging, so that when members of our audience are cooking in the kitchen, they are reminded of best management practices when it comes to FOG. Another useful print handout developed by GBF was a postcard containing household recycling tips for homeowners and apartment dwellers (**Figure 6**). All of these materials can be found in **Appendix II**.



Figure 5. Cease the Grease bookmark for cookbooks.

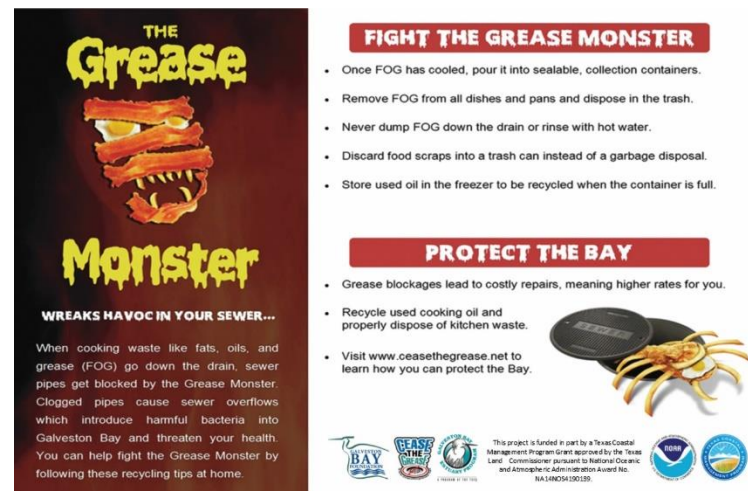


Figure 6. Household tips homeowners can use to help



Figure 7b. Scraper giveaway



Figure 7a. Funnel giveaway.



In addition to traditional print materials, GBF developed and printed campaign giveaways for outreach and educational booth events. These materials can be seen in **Figures 7a –**

7c, and include a funnel for pouring grease into a jar, a scraper for scraping grease off pans and other containers, and a lid cap for

covering containers holding grease. These were printed with GBF's Cease the Grease logo and were given to partners for outreach use. After giving all of these materials away, GBF reassessed the usefulness of the giveaways and their color scheme, and decided to purchase only funnels and scrapers moving forward. After analyzing feedback from outreach tracking, GBF realized that our audience was having a hard time recognizing what the lid caps were, and what their use was. For this reason, GBF eliminated the lid cap from our outreach materials. Another change GBF made during this cycle was to move towards a more unified and cohesive campaign color scheme that represented GBF's hand in coordination of the campaign, as well as differentiated

the Houston/Galveston regional campaign from the *Figure 7c. Lid cap giveaway.*

original Dallas campaign. Newly ordered campaign giveaways are now green and blue, instead of red and orange **Figure 8** and **Figure 9**. Moving forward with the design and implementation of the pilot oil recycling program next cycle, GBF plans to continue using a green and blue color scheme for the campaign.



Figure 8. Newly ordered funnel giveaway.



Figure 9. Newly ordered scraper giveaway.

GBF contacted municipalities and community centered events to schedule outreach presentations and booth displays, and to offer printed materials for inclusion in tenant packets and event goodie bags. **Table 3** shows the list of associated regional organizations that were contacted during this grant cycle and **Table 5** shows the outreach activities schedule.

Workgroup members and campaign partners frequently help with directly promoting the CtGC through donating banner space at events, inviting us to speak or host education booths, and even distributing campaign materials at their booths. These materials included banners, props (**Figure 10**), print handouts, Grease Monster Jar activities (**Figure 11**), and interactive games. GBF hopes to enhance the CtGC booth experience by purchasing “Race Against the Grease Monster” games (developed by a campaign partner, Houston-Galveston Area Council) for partners to use at outreach booths. Conversations within the workgroup about cost-sharing these games are ongoing, and the ordering process began this cycle. An example of this game can be seen in **Figures 12a and 12b**. GBF staff and volunteers have hosted many education exhibits throughout the project area to ensure one-on-one interaction with the community.



Figure 10. Outreach booth materials/props.



Figure 11. Monster Jar activity for outreach booths and school lesson plans.



Figure 12a. H-GAC game for outreach booths that shows the audience how grease forms a clog in our pipes, preventing anything from passing through (front).



Figure 12b. Back of game, displaying the effects of FOG to the audience.

In addition to these outreach booths, several group presentations were made throughout the CtGC project period. GBF continues to have quality interactions with the community through giving live presentations due to the fact that it facilitates better discussions and the opportunity to disseminate more detailed information than can be done with a passive booth audience.

Task 3: Develop Distribution Plan

Once all outreach and educational materials have been developed, the distribution plan for said materials is the most important aspect of this campaign. Campaign visibility and penetration into the community is essential for driving people towards making behavioral changes, and ultimately the success of the overall campaign. As such, GBF focused a lot of effort on securing representation of our vast region's stakeholders for the CtGC.

Associated Regional Organizations

The CtGC is a regional campaign that engages local towns and municipalities – one of its five target audiences. Amassing support from regional organizations allows CtGC messaging to be more easily disseminated throughout our targeted community, and empowers the campaign to sway policy and behaviors within local municipalities, organizations, and businesses. Association regional organizations

also act as excellent resources to the campaign, as they provide holistic feedback and advice to the campaign, as well as expert information from respective fields of work and worldviews. **Throughout this grant cycle, GBF has accumulated 28 regional organizations to the CtGC's cause. Table 3** below displays these 28 associated regional organizations tied to the campaign, as well as a contact/representative from each organization.

Table 3. Regional organizations associated with the Cease the Grease campaign.

Organization	Name
Bayou Preservation Association	Amanda Brown
Cedar Bayou Watershed Partnership	Justin Bower
Citizens Environmental Coalition of Houston	Rachel Powers
City of Baytown	Cristela Villegas
	Sylvia Williams
City of Friendswood	Catharine Gray
	Alex Mendoza
City of Houston	Ogadinma Onybebuchi
	Dean Setiono
City of Houston - Corral the Grease	Bill Goloby
City of La Porte	Bob Eng
	Pam Kroupa
	Jaree Hefner
City of League City	Susie Blake
	Jeanne Griffin
City of Missouri City	Valerie Marvin
City of Nassau Bay	Paul Lopez
City of Pasadena	Luz Locke
	Bianca Locke
City of Pearland	Rajendra Shrestha
City of Pearland Utility Inspector	Lettie Garcia
City of Stafford	Cristin Emshoff
Double Bayou Watershed Partnership	Stephanie Glenn

	Linda Shead
	Brandie Minchew
Galveston Bay Estuary Program	Cynthia Clevenger
	Lisa Marshall
	Sarah Bernhardt
Galveston Bay Foundation	Bob Stokes
	Neally Rhea
	Sarah Gossett
	Kelcie Howren
	Scott Jones
	Charlene Bohanon
Houston-Galveston Area Council	Kathy Janhsen
Houston Wilderness	Deborah January-Bevers
KPRC 2 Click 2 Houston	John Rizzuti
	Angelica Luna
Public	Diane Humes
Shead Conservation Solutions	Linda Shead
San Jacinto River Authority	Michelle Simpson
Texas Commission on Environmental Quality	Linda Broach
Texas Coastal Watershed Program	Charriss York
	Celina Lowry
URS Corporation	Daniel Christodoss
WCID #12	Ed Link
	Derrill Mallett

Media Outlets and Distribution Schedule

The most powerful form of campaign message distribution this cycle was the use of mass-media campaigns using video and audio outreach materials via several media outlets. These outlets included KPRC Channel 2 Local Morning News, YouTube Pre-rolls, and social media. Mass-media campaigns have the power to reach a vast number of people using minimal effort, achieving a number of campaign impressions impossible with use of in—person outreach at community events. **Targeted campaign**

efforts over holidays throughout this grant cycle resulted in creating 1,095,055 impressions on the CtGC's target audience. One disadvantage using this strategy of message distribution is that mass-media campaigns, especially ones using television spots and YouTube Pre-rolls, are expensive. Moving forward, GBF hopes to allocate more of our budget towards these types of distribution methods, while simultaneously leveraging our partnership with KPRC to achieve the most bang-for-our-buck with regard to mass-media campaigns. **Table 4** contains our mass-media outlets and distribution schedules.

Table 4. Media Outlets and Distribution Schedule

Date	Message	Media Outlet	Impressions
11/24/2014- 1/1/2015	Campaign Ad Video (17 spots)	KPRC Channel 2	255,752
11/24/2014- 1/1/2015	Campaign Ad Video (:15s)	YouTube Pre- Roll	33,456
11/25/2014	Keep the Grease Monster out of Galveston Bay! Join us as we launch our newest campaign this holiday season: Cease the Grease. Properly dispose of your kitchen fats, oils, and grease by recycling or throwing it away, not by putting it down the drain! Defeating the Grease Monster depends on you! Find out more at: www.ceasethegrease.net #ceasethegrease	Facebook	1,895
12/4/2014	Recycle your used cooking oil this holiday season in La Porte By the Bay at the North 23rd Street recycling center! Leave your container of grease next to the Waste Oil Recycling area and city staff will recycle it for you! You can also recycle kitchen oil at multiple locations in Houston! #ceasethegrease Learn more at www.ceasethegrease.net .	Facebook	3,700
12/10/2014	Join GBF and our newest campaign, Fight the Grease Monster for Galveston Bay! Properly dispose of kitchen fats and grease, Recycle cooking oil at the end of the week!	Facebook	1,087

	Your friends and neighbors, they're fighting too, Defeating the Grease Monster depends on you! Find out how you can protect Galveston Bay from the Grease Monster at www.ceasethegrease.net ! #ceasethegrease		
7/2-4/2015	Campaign Ad Video (:15s)	YouTube Pre-Roll	51,308
7/4/2015	Happy #FourthofJuly friends!! Don't forget when you're celebrating this weekend to recycle your trash and keep fats, oils, and grease out of the drain! #ceasethegrease	Facebook	1,422
8/11/2015	Sometimes you just have to say, "I told you so..." Head over to www.ceasethegrease.net to learn the truth about how kitchen fats, oils, and grease pollute #GalvestonBay and what you can do to stop them. #ceasethegrease	Facebook	4,090
8/13/2015	Head over to www.ceasethegrease.net to learn the ways FOG pollutes #GalvestonBay and how you can #ceasethegrease.	Twitter	322
8/14/2015	Head over to http://t.co/Q0tMs7yw8H to learn the ways FOG pollutes #GalvestonBay and how you can #ceasethegrease. http://t.co/cABmM15sjY	Twitter	375
8/20/2015	Ever wonder what to do with all the left over fats, oils, and grease after you've finished cooking? We've got you covered. Follow these easy steps from www.ceasethegrease.net to keep your kitchen clean and #GalvestonBay too. #ceasethegrease	Facebook	2,216
8/20/2015	Visit www.ceasethegrease.net to locate kitchen oil recycling stations in the #GalvestonBay area. #ceasethegrease"	Twitter	347
8/20/2015	Visit http://t.co/Q0tMs7yw8H to locate kitchen oil	Twitter	440

	recycling stations in the #GalvestonBay area. #ceasethegrease http://t.co/z8a7c7vq0N		
8/25/2015	Clean pipes lead to a cleaner #GalvestonBay. #ceasethegrease and at home and learn more at www.ceasethegrease.net!	Twitter	334
8/25/2015	Clean pipes lead to a cleaner #GalvestonBay. #ceasethegrease and at home and learn more at http://t.co/Q0tMs7yw8H! http://t.co/ZJoo7sA9QB	Twitter	490
8/28/2015	Recyclers of materials, reducers of waste, and reusers of handy things! You can now visit www.ceasethegrease.net to locate kitchen oil recycling stations around#GalvestonBay and take your environmentally friendly home to a whole other level.#ceasethegrease	Facebook	791
10/21/2015	Sometimes we impact our environment in more ways than we realize, like in the kitchen, for example. Follow this tip to #ceasethegrease and help keep #GalvestonBay with all its critters happy and healthy!#waterwednesday	Facebook	1,880
10/28/2015	Reducing fats, oils, and grease isn't only good for your health, it's good for the health of #GalvestonBay too. Pipes blocked by FOG lead to sewer overflows. www.ceasethegrease.net	Facebook	1,695
11/21/2015	Plan ahead for your Thanksgiving meal and help protect the bay at the same time. Set aside a few sealable containers for fats, oils, and grease to be stored while you're cooking and cleaning up the kitchen. Then trash the filled containers when you're done! #ceasethegrease	Facebook	2,474
11/22/2015- 1/1/2016	Campaign Ad Video (:15s – 21 spots)	KPRC Channel 2	601,000
11/24/2015	Here's another way you can give thanks to Galveston Bay	Facebook	883

	this holiday season: #ceasethegrease and recycle your used cooking oil! Check out our map at www.ceasethegrease.net to find your nearest oil recycling station. (If recycling is not an option, seal the oil in a container and trash it instead!)		
11/25/2015-1/1/2016	Campaign Ad Video (:07s)	YouTube Pre-Roll	126,698
12/23/2015	Don't let the Grease Monster spoil the holidays! #CeasetheGrease by keeping fats, oils, and grease out of the sink and into the trash. Learn more about where you can recycle used cooking oil at www.ceasethegrease.net .	Facebook	1,211
12/24/2015	Keep fats, oils, and grease out of the drain and away from the Grease Monster! Seal fats, oils, and grease in a container and dispose in the trash, or recycle used oil at your nearest recycling station!#Ceasethegrease Visit www.ceasethegrease.net to learn more.	Facebook	1,189
		TOTAL:	1,095,055

Outreach Activities Schedule

Once these varied regional organizations became associated with the campaign, GBF coordinated with them and their community to schedule CtGC partner presence at community outreach events with educational booths. At these events, print materials were distributed to the audience, and educational games and activities were used at the booths to engage children, whom thereby engage their parents. **Over the course of this cycle, the CtGC message was represented by GBF and partners at 33 events, effectively reaching more than 11,874 people.** While in-person events are less effective in reaching a huge audience than mass-media campaigns, they are still very important to campaign distribution strategies, because they provide an outlet for discussion with, and input from the community. Please see **Table 5**, which addresses each of these outreach events.

Table 5. Schedule of outreach activities, including presentations and booth events.

Event Date	Event Attended	Audience	Event Description
10/4/2015	City of Galveston Rain	60	Presentation including ways to reduce bacteria

	Barrel Workshop		in Galveston Bay via reduction of FOG
10/8/2015	National Night Out – Nassau Bay	700	Booth distribution of FOG disposal and recycling tips with household outreach items (can lid, grease scraper, oil funnel)
10/25/2015	City of Dickinson Rain Barrel Workshop	60	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
11/13/2015	Gulf Coast Texas Environmental Health Association Conference	60	Presentation to TEHA employees of campaign overview and water quality initiatives
11/15/2015	City of La Porte Rain Barrel Workshop	64	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
2/21/2015	City of Baytown Rain Barrel Workshop	41	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
3/4/2015	Clear Creek Intermediate School Science Night	175	Distribution of campaign message and household items (can lid, grease scraper, oil funnel) to teachers and students
3/28/2015	River, Lakes, Bays 'N Bayous Trash Bash Regional Cleanup Event	4,500+	Booth event with "Race to Defeat the Grease Monster" game and campaign fliers
4/10/2015	KE Little Elementary School Career Day	200	Distribution of campaign message and household items (can lid, grease scraper, oil funnel) to teachers and students
4/21/2015	Double Bayou Watershed Partnership Meeting	25	Campaign overview presentation to recruit Double Bayou Water shed Partnership as campaign partner
4/22/2015	H-GAC Clean Water Institute	35	Presentation outlining the campaign goals and outreach methods, including campaign giveaways and fliers
4/23/2015	Pasadena Household Hazardous Waste &	50	Booth event to distribute recycling tips flier and plastic handouts (can lid, grease scraper, oil

	Recycling Fair		funnel) along with recycling flier
4/25/2015	City of Pasadena Rain Barrel Workshop	67	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
4/24-4/26	Earth Day Dallas	2,000+	Booth event to distribute recycling tips flier and plastic handouts (can lid, grease scraper, oil funnel) along with recycling flier
4/27/2015	City of League City Public Meeting	25	Presentation outlining the campaign goals and outreach methods, including campaign giveaways and fliers
4/27/2015	Oyster Waters Public Comment Meeting	20	Table present to advertise campaign messaging and handout items and fliers
4/28/2015	Oyster Waters Public Comment Meeting	15	Table present to advertise campaign messaging and handout items and fliers
5/2-5/2015	River Rally 2015 Conference	30	Campaign information, details, game demonstration
5/23/2015	GBF Bay Day Festival	2,500+	Booth event to distribute recycling tips flier and plastic handouts (can lid, grease scraper, oil funnel) along with recycling flier
6/13/2015	City of Seabrook Rain Barrel Workshop	42	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
7/18/2015	City of Friendswood Rain Barrel Workshop	79	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
8/22/2015	City of Dickinson Rain Barrel Workshop	60	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
9/10/2015	Dig'N Design Garden Club Meeting	20	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
9/26/2015	La Porte Health and Safety Fair	300	Recycling tips flier and plastic handouts
9/29/2015	UH Clear Lake Rain Barrel Workshop	14	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG

10/3/2015	La Porte Sip and Stroll	400	Booth distribution of FOG disposal and recycling tips with household outreach items (can lid, grease scraper, oil funnel)
10/24/2015	City of La Porte Rain Barrel Workshop	20	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
11/7/2015	Nassau Bay Rain Barrel Workshop	25	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG
11/14/2015	Keep Friendswood Beautiful Fall Haul	200	Booth distribution of FOG disposal and recycling tips with campaign banner displayed
1/13/2016	GBEP State of the Bay Symposium	25	Presentation about citizen engagement for improved water quality, including ways to reduce bacteria in Galveston Bay via reduction of FOG
2/25/2016	Phase 1 & 2 Water Monitoring training	23	Presentation including ways to measure and reduce bacteria in Galveston Bay via reduction of FOG – giveaways and educational postcard
3/2/2016	Lee College Environmental Science Class	16	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG.
3/5/2016	Baytown Rain Barrel Workshop	23	Presentation including ways to reduce bacteria in Galveston Bay via reduction of FOG.
	TOTAL:	11,874+	

Campaign Strategy Toolkit

The Campaign Strategy Toolkit was developed by GBF with workgroup input, and helps guide new partners and interested parties as they get involved in the Cease the Grease Campaign. The toolkit thoroughly covers the campaign by explaining the importance of the campaign, who the campaign's audience is, about the workgroup, materials available to partners and interested parties, methods of distribution and distribution strategies, outreach tracking strategies, and the benefits of being a partner to the CtGC. This deliverable has been completed as a printable paper copy this cycle, and is included in **Appendix III**. GBF hopes that this toolkit will eventually become accessible on the CtGC website for the entire region to access and use, regardless of being an official partner to the campaign or not. This toolkit will offer great insight into the campaign's mission and functionality, will set guidelines for partnerships, and will demonstrate the ease of use of campaign materials.

Task 4: Track Campaign Progress

GBF is continuously looking for ways to improve our tracking methods in order to better demonstrate behavior change and environmental improvements resulting from the CtGC. Due to the nonpoint source, temporal nature of fats, oils, and grease pollution, it can be difficult to attribute the cause of SSOs to FOG unless explicitly identified at the point of the overflow. This results in an underreporting of SSOs caused by FOG, as overflows caused by FOG generally coincide with multiple issues, such as aging infrastructure, torrential rainfall, and organic plant debris adding to the blockages. In fact, while compiling the SSO data for the Houston-Galveston region, GBF encountered many causes of overflows described simply as “blockage,” “clog,” and “debris.” Poor identification and underreporting are challenges GBF faces in reporting accurate campaign progress. As a result, the data reported in this section should be considered conservative figures. The following sections will detail results for this funding cycle and will address opportunities for improvement in future cycles.

Marketing and Outreach Impressions

GBF developed a number of outreach tracking sheets, and provided them to workgroup members and partners to fill out on a quarterly basis. Originally, GBF provided an Excel document which required our partners to report outreach events attended, details about these events, which CtGC materials were distributed at said event, and the demographics of the audience. This tracking sheet was sent out to partners quarterly. Unfortunately, GBF was getting very little response from partners using this method. In response to this challenge, GBF began to implement a monthly newsletter, which always provided partners with an outreach tracking sheet. This, too, was an unsuccessful strategy for collecting partner data. Finally, GBF discussed outreach tracking during a workgroup meeting to receive input on which methods of reporting would be easiest and most accessible to partners: what could GBF do to make it as easy as possible for partners to report tracking? Partners expressed a desire for personal communication and a simple 5-question survey for tracking purposes. GBF then created a simplified tracking sheet, which is included in **Appendix IV**, and attached it to monthly newsletters, attached it to pre-set emails, and invited phone calls to verbally record this information, if preferred by the partner. This strategy was implemented near the end of this cycle, so GBF will continue to monitor partner response and pursue effective partner tracking approaches in the future. All partner outreach tracking sheets are included in **Appendix IV**.

Change in Knowledge Levels

Measuring the change in knowledge levels of the public was a challenge for the CtGC during this cycle. A survey was created to measure pre-existing knowledge about FOG disposal of the public before campaign education efforts were under way, and this survey was placed on the CtGC website and distributed a couple times, a couple different ways. This survey is included in **Appendix IV**, for reference. Although a survey was created and distributed, it did not necessarily mean that public participation could be assumed. Indeed, there was very little response to the survey. GBF requested guidance from GBEP and from the campaign workgroup on how to encourage survey participation from the public. Achieving this participation is an ongoing process, and GBF hopes to continue efforts with this survey through implementation of new surveying strategies. Potential strategies include surveying people during bothing events, enlisting the help of Boy Scouts that are in search for Eagle Scout projects, and working with public works departments to reach their customers directly.

Performance Indicator Tracking

In order to track the performance of the CtGC, GBF collaborated with the workgroup to determine a set of performance indicators. In addition to all of the partner engagement, and outreach and marketing indicators listed in previous sections, additional indicators include: 1) the number of SSOs caused by FOG annually in the Galveston Bay region, 2) the number of line cleaning events performed annually, and 3)

the number of grease trap inspections performed annually. Although these last two indicators were agreed upon by the workgroup, GBF had difficulties compiling this information due to lack of partner response. Line cleaning event and grease trap inspection data was requested numerous times during workgroup meetings, through email, through newsletters, and in-person. Unfortunately, GBF has yet to get a response from CtGC workgroup members or partners. GBF will now use this knowledge of lacking partner engagement to reassess performance indicators for next cycle. GBF was able to compile SSO information with assistance from H-GAC and TCEQ.

Table 6. SSO data for the Houston-Galveston region for 2014 and 2015.

Date	# SSOs Caused by FOG	Total SSOs	% SSOs Caused by FOG
2014	493	1265	39%
2015	542	2009	27%
TOTAL	1035	3274	32%

As previously mentioned, acquiring accurate data on the number of SSOs caused by FOG annually in the Houston-Galveston region is no easy task. GBF acquired SSO data for all of the domestic WWTFs and large MUDs located within the municipalities involved in the CtGC for 2014 and 2015 thanks to our campaign partners at the Houston-Galveston Area Council. GBF then sorted by cause of incident; GBF only pulled the data that had the word “grease” in the description, which provides very conservative figures and results. **Table 6** shows the breakdown of SSOs per year, and provides percentages of SSOs caused by FOG for both years. Please note that while there seems to be a discrepancy in percentages of SSOs caused by FOG in this table and the campaign’s proclaimed 50% statistic—there is not. The CtGC’s 50% of SSOs in our area caused by FOG statistic was based on 10 years of data from the 18 permittees in the oyster waters project area. The data set used for **Table 6** is a different set of permittees and only two years of data, which explains why these percentages appear in contrast to one another. Evidently, there seems to be a decrease in the percentage of SSO incidents caused by FOG from 2014 to 2015. As this is preliminary data for tracking the CtGC, it is hard to determine if this is the beginning of a trend or not. In the future as the campaign continues, more data will be necessary to see if this decrease is a trend or simply annual variability.

Conclusions and Lessons Learned

The Cease the Grease Campaign saw many rewarding enhancements during this funding cycle. The campaign workgroup provided excellent input, insight, and support throughout the establishment of the CtGC. Regional partnerships continue to grow as more WWTFs, municipalities, and organizations learn about the campaign message and our active measures to effect change through influencing policy and behaviors towards fats, oils, and grease. Through mass- social media and television campaigns, outreach and booth activities, and collaboration between GBF and partners, the CtGC was able to touch over a million people in the Houston-Galveston region this cycle. Moving forward, the campaign will begin to develop towards increased involvement of restaurants, apartment dwellers, and school-aged children

through a cooking oil recycling program, outreach targeted towards restaurant best management practices, and classroom lesson plans and activities.

To summarize our major findings, over 50% of the organizations on the CtGC workgroup attended meetings and 79% directly contributed to campaign activities, such as assembling and distributing education packets, connecting GBF to audiences for giving presentations, implementing the campaign in their business or municipality, and providing technical assistance for mass-marketing outreach campaigns. Through education booths, presentations, and print media, the CtGC reached over 11,800 people at 33 live events. Through social and digital mass-media outlets, GBF was able to reach over 1,095,055 people with the Cease the Grease campaign message through just 4 media outlets. These numbers will continue to grow as the social media strategies and graphics continue to be developed by GBF and by campaign partners. Lack of participation in public surveys, as well as outreach tracking and data input by the campaign workgroup was the largest challenge for performance indicator tracking, and moving forward GBF will try new techniques to encourage partner participation in reporting. Although too soon to draw conclusions, SSO data indicated a percentage decrease in SSOs caused by FOG between 2014 and 2015. This data will continue to be collected and monitored as the campaign gains traction and success in the Houston-Galveston region.

Overall, GBF and the workgroup are pleased with the initial implementation of the campaign and the progress it has made thus far. The information collected during this cycle will assist us as we continue to strive for increased community outreach, impressions made, and observed behavior change. GBF recognizes that the CtGC is a complex balance of educating the public, coordinating with municipalities, and driving cultural and behavioral change. We look forward to continuing work on this project. Thank you to the Coastal Management Program and NOAA for your support of this important environmental, economic, and public health issue.

References:

Texas Commission on Environmental Quality (TCEQ). (2008). Six Total Maximum Daily Loads for Bacteria in Waters of the Upper Gulf Coast: Segments 2421, 2422, 2423, 2424, 2432, and 2439. Chief Engineer's Office, Water Programs, TMDL Section. Austin, Texas. 1-46.

Appendices (Download from Link)

<https://www.dropbox.com/sh/6op6m0zftynytk/AACoYr3uPLqONleTGAlos3aia?dl=0>

i- Task 1 attachments

- Workgroup meeting schedule and location
- Performance indicators agreed upon by the workgroup

ii- Task 2 attachments

- Digital marketing and outreach materials
- www.ceasethegrease.net
- Print graphics
- Video spots
- Presentations

iii- Task 3 attachments

- Campaign strategy toolkit

iv- Task 4 attachments

- FOG Prior-knowledge Survey
- Partner outreach tracking sheets
- SSO data