
Appendix 3

Responses to Public and Agency Comments

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Note: For consistency and chronological purposes, resource agency comments received during the public and agency comment period and responses to them have been included in Appendix 2, Agency Coordination with the rest of the respective coordination that normally takes place during the development of the EA. Public comments and responses are provided herein.

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Sepulveda, Carl

From: Catanzaro, Andrea SWF @SWG <andrea.catanzaro@usace.army.mil>
Sent: Friday, October 09, 2015 2:22 PM
To: Mike
Cc: Sepulveda, Carl; Murphy, Carolyn E SWF @SWG
Subject: RE: [EXTERNAL] Comments to Houston Ship Channel Project Deficiency Report and Draft EA (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Manering,

Yes, I did received your comments, and email is perfectly acceptable for submitting your comments on the draft reports.

Thank you,

Andrea Catanzaro
NEPA and Cultural Resources Section
USACE, Regional Planning and Environmental Center
409.766.6346
andrea.catanzaro@usace.army.mil

-----Original Message-----

From: Mike [mailto:mjmane@comcast.net]
Sent: Friday, October 09, 2015 12:38 PM
To: Catanzaro, Andrea SWF @SWG
Subject: [EXTERNAL] Comments to Houston Ship Channel Project Deficiency Report and Draft EA

US Army Corps of Engineers
Galveston District

District Engineer
U.S. Army Engineer District, Galveston
ATTN: CESWG-PE-PR
c/o Ms. Andrea Catanzaro, andrea.catanzaro@usace.army.mil P.O. Box 1229 Galveston, Texas 77553-1229
409-766-6346 Phone
409-766-6301 Fax

Blocked<http://www.swg.usace.army.mil/businesswithus/planningenvironmentalbranch/documentsforpublicreview.aspx>

Dear Ms. Catanzaro:

Please send me a reply by e-mail to confirm you received my comments below and that this format is acceptable for my formal submission to you on or before 15 October 2015. Thank you.

Michael J. Manering
208 Bay Colony Dr.
La Porte, TX 77571

Comments to "Houston Ship Channel Project Deficiency Report and Draft EA"
referred to as "the report" in comments below:

1. Direct noise impacts from the report's project sources (dredges, work barges, crew boats, dredge tows, PHA fire boats, etc.) approaching from Galveston Bay, departing to Galveston Bay, located in Galveston Bay, and located in the Bayport Ship Channel Container Terminal ship berths and land cut need to be appropriately identified and mitigated. The people on shore substantially impacted by this include residents of Bay Colony, residents of Shore Acres, residents of La Porte, residents of Morgan's Point, residents of Pasadena, residents of Seabrook, Galveston Bay fisherman, Pasadena/Seabrook/La Porte/Shore Acres/Bay Colony/Harris County public & community park patrons, and Houston Yacht Club sailors, boaters & patrons. 1
2. Given the past and ongoing concern with respect to Bayport noise impacts and lack of appropriate response in the report on this matter, the noise impacts that result from the report's proposed project activities conducted out in the open bay, land cut, and ship berths require explicitly documented consideration. Limitations on noise generated and on the time of day that noise can be generated by any and all of the report's project activities, including out in the open bay and land cut, need to be put in place to ensure appropriate mitigation. 2
3. Since the report's project timeline has not been specified the direct noise impacts could continue for an indefinite period. Experience has shown that continuous day-in and day-out and even on-and-off dredging, especially during nighttime hours, creates a highly stressful and unlivable noise and vibration environment for residential and recreational neighbors. Specific definition of the report's project overall timeline needs to be put in place. Restrictions on 'working day' hours allowed for any and all of the report's project activities need to be put in place. Effective noise barriers/mitigation for all vessels, equipment and machinery, including but not limited to dredges and pumps, are required. 3
- . As a recurring example, tow, tug, dredge, crew and work boat operators working on Bayport maintenance dredging projects leave their very loud engines and/or generators idling 24/7 between their times of active work creating entirely unnecessary noise, vibrations, and air pollution besides wasting fuel. 4
- . Specifically the current ongoing Bayport Widening and Deepening Project provides examples easily seen today:
 - Since its start about 10 months ago loud noise generated out in the open bay from this project's activities travels unimpeded and even amplifies across the open water into the residential and recreational areas on shore. This has been 24/7 non-stop for about 10 months now and reportedly will continue past the expected completion date well into next year causing many sleepless nights and annoying noise during daytime family activities.
 - For access to work sites across and out in the open bay a crew boat for the project with no mufflers would make runs to and from the Bayport land cut every few hours night and day starting/revving engines creating much unnecessary noise, vibrations, and air pollution.
 - Besides the continuous noise from sometimes as many as ten different large diesel engine powered vessels and on-board equipment/machinery operating at the same time, the current dredges, pumps, cranes, work tugs, crew boats, barges, etc. are dumping tons of black smoke into the air constantly. The pump barges in particular operate almost constantly through the day and night generating a loud rumbling throbbing noise.5

A restriction for the report's project disallowing these kind of wasteful and unhealthy situations is appropriate.

Classification: UNCLASSIFIED
Caveats: NONE

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Michael J. Manering
208 Bay Colony Dr.
La Porte, TX 77571

RESPONSE TO COMMENTS

Comment No.	Response
1	<p>The project is located at least 1.3 miles from the nearest potential sensitive receptor (e.g. residence, school), and the continuous sound source from dredging and placement activities will occur at this or greater distances. The closest sensitive receptor identified was the El Jardin del Mar community in Pasadena, at closest approximately 1.3 miles away from the part of the project closest to shore. The Environmental Assessment (EA) Section 4.3.9 discusses the estimated sound level at this and greater distances from the highest constant sound pressure level (SPL) sources for dredging and dredged material placement. The SPLs at the nearest potential sensitive receptor attenuate to below 40 decibels A-weighted (dBA), which is well below the average ambient levels previously measured in the community for the Bayport Ship Channel Container Terminal (BSCCT) Final Environmental Impact Statement (FEIS). This was a 24-hr equivalent SPL (L_{eq}) of 59 dBA. The proposed activity will not be conducted in the land cut or the Bayport Ship Channel Container Terminal.</p> <p>Tugs and crew boats would only pose transient noise sources to mainland noise receptors as they depart to and return from the dredging and placement worksites out in Galveston Bay. Whether these support vessels depart from berthing at Bayport Ship Channel (BSC), Barbour's Cut Channel (BCC), or marinas further south, such as in Clear Lake. Such sound levels would be commensurate with engine sound from commercial and recreational vessel activity already occurring daily on these channels.</p>
2	<p>The primary sound-producing activity of dredging and dredged material placement will take place at distances far from the shore and nearby residential receptors around Bayport and will result in levels well below previously recorded average ambient levels as documented in Section 4.3.9 of the EA. Support vessel transit, from shoreside berthing to the work out in the Bay, would only result in brief transient sound, which will not exceed daily averages previously measured in the nearest shoreside communities. These events would be infrequent on a daily basis, as they would occur during shift changes, and not as part of continuous operations. Also, these sound events would be similar to that already generated from the daily activity along the HSC, BSC, and neighboring navigable water, as tug vessels, ships, and recreational vessels (fishing boats, shrimping vessels, tour vessels, etc.) transit the area regularly.</p>
3	<p>Dredged material placement area (PA) preparatory work at PA 14 is expected to take approximately 3 months, and subsequent dredging of the Flare Easing, HSC Widener, and barge lane relocation, is expected to last up to 10 months. Both the PA and dredging work will take place at locations more than 1.3 miles away from</p>

Comment No.	Response
	shoreside receptors, and as documented in Section 4.3.9 of the EA, would be far enough away for sound levels to be well below previously recorded ambient levels. This activity would be similar in equipment and sound levels to the periodic maintenance dredging that already occurs on the HSC and BSC.
4	Engine operation between active dredging is limited to that necessary for crew members to plan and perform equipment maintenance and preparation for subsequent daily dredging activity. This is typically limited to auxiliary generation to supply power for crews, survey equipment, etc. working in support tugs. Since fuel is a primary cost for dredging, the contractors carefully assess project needs and utilize engines only when necessary.
5	The PHA has implemented numerous sound reduction measures during the construction of the Bayport Deepening and Widening Project, including requirements for a noise control plan, noise suppression on dredging equipment and nighttime dredging operation restrictions near or inside of the land cut. The project has continued sound level monitoring previously implemented for the land cut area. These monitors include “fenceline” monitoring at two positions near the community to the north of the BSC, and one position near the community to the south of the BSC. The monitoring has complied with the special conditions regarding noise contained in the USACE Regulatory Permit #SWG-2011-01183.

Additionally, throughout the deepening and widening project, the PHA has publically advertised, through its website, a postcard mailer to nearby residents, and local community meetings, its Community Information Line (713-670-1000) for residents and neighbors to call if they hear any irregular sounds near the channel, or sounds related to dredging activities. Through the duration of the project thus far, the PHA has received only one call possibly related to dredging activity.

Regarding the comment purporting crew boats having no mufflers, all marine engines coming from the manufacturer have some form of muffler system whether it is the common water injected “wet” exhaust system or standard mufflers. Mufflers on all equipment were also required in the contract specifications for this project. Regarding equipment emissions, planning and permitting for both the BSC Improvements and the HSC PDR projects have complied with all applicable air quality regulations. The dredging for the proposed HSC PDR project would be contracted and performed using the same types of requirements, procedures and equipment that have been used on numerous maintenance dredging jobs on the HSC and BSC.

Sepulveda, Carl

From: Catanzaro, Andrea SWF @SWG <andrea.catanzaro@usace.army.mil>
Sent: Friday, October 16, 2015 8:16 AM
To: Sepulveda, Carl
Cc: Murphy, Carolyn E SWF @SWG
Subject: FW: [EXTERNAL] Proposed widening of the Houston Ship Channel and the widening of the Bayport Flare, Environmental Report (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Carl,

Mr. Cooney's comments are provided below.

Andrea Catanzaro
NEPA and Cultural Resources Section
USACE, Regional Planning and Environmental Center
409.766.6346
andrea.catanzaro@usace.army.mil

-----Original Message-----

From: cq [<mailto:cq3000@sbcglobal.net>]
Sent: Thursday, October 15, 2015 5:55 PM
To: Catanzaro, Andrea SWF @SWG
Subject: [EXTERNAL] Proposed widening of the Houston Ship Channel and the widening of the Bayport Flare, Environmental Report

15 October 2015

Re: Proposed widening of the Houston Ship Channel and the widening of the Bayport Flare, Environmental Report

As an aside before observations on this report, it should be pointed out that the postcard sent out by the Corps of Engineers is postmarked on 18 Sept 2015, three days later than it should have been sent and not within the 30 day time frame. This lack of attention seems to also be reflected in the environmental report. **1**

This environmental report is deficient.

1. It does not adequately address the impact on recreational safety
2. It does not adequately address the impact on overall recreational use and the continuing loss of the Bay to commercial use.

2

Per Carl Sepulveda of AECOM there was no contact made with any recreational sail boaters, power boaters, fisherman, sailing clubs, and yacht clubs. Not one group or even one person interested in recreational use was contacted. The assumption that there is no impact on recreational boating without any study and without any research is misguided. There is boiler plate that simply mentions the Houston Yacht Club and other sailing clubs. **3**

And then in 4.3.3 the main reference to recreation, it does not address either recreational safety or the overall impact of continuing loss of the Bay to commercial uses. Both are glaring omissions, most particularly safety, since the apparent goal of this proposal is to improve safety.

The report does not examine the increased transit time it will take small recreational sailboats to make while transiting both the wider Bayport Channel (flare) and the wider Houston Ship Channel at five mile cut. The report does not explore the safety of teenage sailors, sailing one-person sailboats doing this proposed longer transit. There are hundreds of small boats located at HYC just 2 miles from this site. Safety is equally important for recreational sailors, most importantly the young boys and girls who sail in the bay.

In conversation with Carl Sepulveda, he said the proposed wider Bayport Channel (flare) will be used for transit purposes by container ships. Meaning this area, and the HSC area, some 2,439,360 square feet (over 56 acres) will be lost to recreational use (such as a sailboat racing area, such as a fishing area, etc.). Bayport Channel and Bayport turning area and Bayport Cruise ship area have already reduced recreational use of the Bay.

The Bay is being lost to commercial use a little bit at a time. As each slice of upper Galveston Bay is provided to commercial use there is less recreational area. Each time it is "just a little bit". There must be a red line drawn somewhere by the US Army Corps of Engineers that says "enough". The Corps cannot continue to commercialize all of upper Galveston Bay to the detriment of recreational sailors, fisherman, and other users.

The report does not examine the continual encroachment of HSC and Bayport Channel on the amount of area available for recreation. Another 56 plus acres of Bay devoted to HSC and BSC without a thorough examination of the impact on recreational users and boaters is unconscionable.

The lack of true examination of the impact on recreational boaters should be remedied in this study.

It is strongly requested that no action be taken by the Corps on this project until a proper study is made. A study with at least some depth will reveal a greater impact than the little if any attention section 4.3.3 gives to recreational use in this flawed report.

Gerald Cooney
P.O. Box 2028
Friendswood, TX 77549

Classification: UNCLASSIFIED
Caveats: NONE

Gerald Cooney
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Friendswood, TX 77549

RESPONSE TO COMMENTS

Comment No.	Response
1	Comment noted. Actions will be taken to ensure timely future mailings.
2	The proposed corrective actions to the channel were not expected to impact recreational safety because they are modifications <u>directly</u> adjacent to the existing deep draft channel where large vessels transit daily and regularly, and recreational users would already practice safe passage around the existing commercial navigation. The impact on overall recreational use and the perception of continuing loss of the Bay to commercial use are discussed in the response to Comment 5 below.
3	<p>The response from Mr. Sepulveda was addressing whether contact was made specifically for the Project Deficiency Report (PDR) and accompanying Environmental Assessment (EA). However, the proposed actions of the project itself have been presented to recreational interests, including the HYC and other recreational boaters groups as well as the general public during the planning and permitting of the PHA's BSC Improvements Project (Bayport Deepening and Widening), as the Flare Easing proposed by the USACE was described in the initial public notice for the BSC Improvements (Permit #SWG-2011-01183) published 3 May 2012 and 28 August 2013. This project component was also portrayed in the drawings attached to that public notice that was posted publicly on the Galveston District's website and advertised through postcard notices sent to the adjacent community, including the HYC. PHA also met several times with the HYC before and after the initial public notice, specifically to discuss the proposed BSC Improvements Project, including 12/9/2011, 12/14/2011, 2/2/2012, and 5/17/2012 and the deepening of the Flare Easing was part of the project discussed and portrayed.</p> <p>Besides those meetings, numerous meetings with community and local government entities were attended or hosted by the PHA to present the proposed BSC Improvements including the Cities of La Porte, Shoreacres, Seashore Community Advisory Panel, El Jardin Community Association, and Morgan's Point spanning December 2011 to June 2012. The PHA also held an open house meeting presenting the project on May 31, 2012. Additionally, the PHA had an informational booth during Galveston Bay Foundation's Bay Day on June 9, 2012 at the Kemah Boardwalk specifically to answer questions concerning the BSC Improvements project, which is targeted to the surrounding community that would include recreational users. During all of this coordination and the extended 60-day public comment period, elements of the proposed project that were described were not raised as an issue for recreational use of Galveston Bay.</p>

Comment No.	Response
	<p>After coordination with the local communities and the recreational boater communities, the PHA revised some of the plans outlined in the 3 May 2012 Public Notice and the associated EA was revised and reissued for public notice on 28 August 2013 through postcards to the neighboring communities and interest groups, notices in the Houston Chronicle, and on the USACE Galveston District website. Section 2.2, Section 2.2.2.1, Section 2.2.3.2 as well as Exhibit 2.2.3-1 of the EA for the BSC Improvements Project specifically mention that the USACE was studying the project currently commented on. The proposed project elements communicated through various public meetings, informal meetings, and the previous two public notices were not raised as an issue for sailing impacts for a period spanning almost four years. No other objections from the recreational boating community have been received.</p>
4	<p>To reach the lower part of Galveston Bay from the upper lobe of the Bay north of the BSC, recreational boaters and sailors have to cross the current BSC. On the BSC, the proposed Flare Easing starts at approximately 1.6 miles east of the land cut, leaving 1.6 miles of the current BSC within the Bay unaffected by the proposed Flare Easing in terms of added width. This means a 1.6 mile-wide corridor unaffected by the proposed project is available for crossing from the Bay area north of the BSC to the south. The majority of the existing passage across the BSC remains unaffected. It is the USACE's understanding that the current Flare, which is marked for the Federal Channel extent, is not used for sailing race courses, and it would not be expected that the area immediately adjacent to it, which is directly subject to vessel wakes, would be used directly for sailing courses. PHA communication with HYC regarding regularly used regatta courses also indicates that regattas are not held in this direct vicinity but closer towards the shoreline from the Flare.</p> <p>Regarding transit across the Flare, it would not be anticipated that inexperienced sailors would be required or advised to sail across the current widest part of the intersection of two of the busiest deep draft navigation channels. Regardless, the proposed Easing at its widest where it enters the HSC, adds approximately 360 feet to crossing along a track perpendicular to the curve of the Flare, and 560 feet along a skewed track due south. At a slow speed of 2 knots, this adds 1 minute and 47 seconds and 2 minutes and 46 seconds respectively. At a conservative cruising speed of 6 knots, this adds 36 and 55 seconds respectively.</p> <p>Five-Mile Cut currently crosses the existing barge lane, which is the area proposed for the Main Channel widener. So the only new portion of Five-Mile Cut not currently part of the Federal navigation channel that would be impacted is the proposed barge lane relocation, which effectively adds 205 feet of additional length in Five-Mile Cut to clear the proposed barge lane relocation. Crossing at the widest part of the barge lane relocation effectively adds 235 feet. At a slow speed of 2 knots, this adds 61 seconds and 70 seconds respectively. At a conservative cruising</p>

Comment No.	Response
	<p>speed of 6 knots, this adds 20 seconds and 23 seconds respectively.</p> <p>It would be anticipated that sailors would not cross a commercial navigation channel without a sufficient time and space margin of safety, especially having to observe the boater law rules of the road to give right of way to larger, less maneuverable vessels. Considering this, it would be expected that these short additional crossing times would be practical to factor in by recreational sailors to execute a safe crossing, especially in a bay that already has regular large vessel and recreational traffic co-existing.</p>
5	<p>In response to this comment, geospatial software and shoreline spatial data from the Texas Natural Resources Information System (TNRIS) were used to calculate compare and contrast the proposed project footprint to areas of Galveston Bay.</p> <p>Even though the proposed project footprint of 56.7 acres is not in the upper lobe of Galveston Bay north of the BSC and west of the HSC, that footprint represents only 0.94% (<1%) of the 9.47 square miles (mi²) of that lobe located outside of the Federal navigation channels (HSC and BSC). The proposed project is located south of the BSC in the Upper Bay. The proposed project footprint represents only 0.23% (<1%) of the 38.8 mi² of the Upper Bay south of the BSC, west of the HSC, and north of Eagle Point/Redfish Reef. For the entire 48.3 mi² of the Upper Bay north of Eagle Point/Redfish Reef and west of the HSC, the proposed project footprint represents only 0.18% (<1%) of the area. Considering the impact is less than 1 percent, the proposed project is a negligible amount of area shifted to commercial navigation use for the Upper Bay west of the HSC. When area of the Upper Bay east of the HSC is considered (i.e. Trinity Bay), the impact would be less than hundredths of a percent. Therefore, the project will not remove more than a negligible amount of waters from recreational use in Upper Galveston Bay.</p> <p>The HSC was originally completed in 1914 to its original 150-foot width in the Bay, representing an area of approximately 476 acres (0.74 mi²) for its 26.2 mile length in Galveston Bay, or 0.12% of Galveston Bay's 600 mi². Since that time, it was widened by 450 feet in the 1960's and 70's to a 400-foot width along this length, adding 794 acres, or an additional 0.21% of Galveston Bay's area. From 1998 to 2005, it was widened by an additional 130 feet to its current width of 530 feet along this 26.2 mile length, and 150-foot wide barge lanes were added for 15.2 miles in this reach, to result in a total additional 688 acres, or only 0.18% more of Galveston Bay's area. The BSC was originally excavated out of the Bay and out of uplands in the land cut in the 1960's and completed to a 300-foot width by 1977. The portion of the channel in the Bay, including the existing Flare, comprised an area of approximately 124 acres, or 0.03% of Galveston Bay. Construction of the recently permitted Bayport Deepening and Widening Project is ongoing and will widen the Bay reach by 100 feet to the north, resulting in approximately 68 acres, or 0.018% of Galveston Bay. Considering these percentages collectively, since the HSC was originally built in 1914, these vital improvements to one of the Nation's top 3 most</p>

Comment No.	Response
	<p>important navigation systems has dedicated only an additional 0.44% of Galveston Bay to commercial navigation. That is a rate of 0.04% every decade. This is a negligible conversion of waters to commercial use, considering the magnitude and multitude of economic benefits provided by the HSC and BSC, including those affecting income, fuel, petrochemicals, plastics, finished goods, and other things that not only are central to Houston's, Texas', and the Gulf Coast region's economies, but also enable widespread recreational use.</p>
6	<p>Please see the response above. As shown, the proposed project only affects a very low and negligible percentage of available recreational waters, and the improvements to the overall HSC system since it was first created, also represent a negligible percentage over those 101 years.</p>



BY MAIL AND EMAIL

October 15, 2015

U.S. Army Corps of Engineers
Andrea Catanzaro
NEPA and Cultural Resources Section
USACE, Regional Planning and Environmental Center
P.O. Box 1229
Galveston, Texas 77553-1229

Attention: Public Notice No. HGNC-15-01

Re: Comments on USACE’s Draft Environmental Assessment and Draft General Conformity Determination for Houston Ship Channel Project Deficiency Report, Houston-Galveston Navigation Channels

I. INTRODUCTION

Environmental Defense Fund (“EDF”) appreciates the opportunity to comment on USACE’s Draft Environmental Assessment (“DEA”) and Draft General Conformity Determination (“DGCD”) for the Houston Ship Channel Project Deficiency Report (“the project”), Houston-Galveston Navigation Channels (Public Notice No. HGNC-15-01). EDF is a non-partisan environmental organization with more than 1,000,000 members nationwide, including more than 60,000 members in Texas and more than 13,000 members in the 8-county Houston-Galveston-Brazoria ozone non-attainment area. EDF is dedicated to working toward innovative, cost-effective solutions to environmental problems, building on a foundation of rigorous science, economics, and law. We are commenting on the DEA and DGCD as an air quality stakeholder in the Houston region that has collaborated on emissions reductions efforts with partners such as the Port of Houston Authority (PHA), the Houston-Galveston Area Council (HGAC), and the Texas Commission on Environmental Quality (TCEQ). Our comments focus on improvements in emissions estimation methodology, the relevance and impact of emissions in the HGB area, and recommendations on how to reduce emissions through newer, cleaner technologies and securing offsets.

II. EMISSIONS ESTIMATION

The emissions analysis conducted as part of the DGCD should be revised to use the hours of equipment use and load factor estimates consistent with TCEQ’s latest documentation. These revisions would result in a greater estimate of nitrogen oxide (NOx) emissions associated with the project, and we recommend that the DGCD and DEA be modified accordingly.

- Table 1 in Attachment A of the DGCD assumes that dredging equipment operates 16 hours a day. However, the recent marine emissions inventory prepared for TCEQ assumes that dredging equipment operates 24 hours a day with 10% of that time

1

2

dedicated for minor maintenance and refueling¹. The emissions estimation in the DGCD should reflect the TCEQ emissions inventory unless USACE can demonstrate a specific reason why this project would limit dredging operations to 16 hours per day.

- Table 1 in Attachment A of the DGCD assumes that dredging equipment operates with a load factor of 60-65% depending on the specific emissions source. However, the recent marine emissions inventory prepared for TCEQ assumes that dredging equipment operates with a load factor of approximately 80%². This is based off EPA's *Current Methodologies in Preparing Mobile Source Port-Related Emission Inventories*. The emissions estimation in the DGCD should reflect the TCEQ emissions inventory unless USACE can demonstrate a specific reason why this project would limit the load factor to between 60% and 65%.

III. RELEVANCE AND IMPACT OF EMISSIONS

Understanding emissions associated with the proposed project in the context of air quality trends is important in a thorough review of potential impacts from the project. Specifically, the DCGD and the DEA should reflect the newly released federal health-based ozone standard and the environmental justice implications of cumulative emissions impacts.

- On October 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the health-based National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion. EPA [projects](#)³ that the Houston-Galveston-Brazoria region to be among a handful of areas outside of California that will not meet the new standard by 2025. Considering that the region is not meeting the current standard and is projected to not meet the new standard, it is imperative that new projects secure emissions offsets in order to accelerate progress toward attainment.
- On June 10, 2015, EPA released [EJSCREEN](#)⁴, which is an environmental justice mapping and screening tool that provides nationally-consistent environmental and demographic indicators. This tool is helpful in understanding the environmental justice context of proposed and current projects, particularly in understanding the cumulative impacts that many communities face. The Houston Ship Channel area is a well-known industrial and freight transport hub with an abundance of emissions sources. EJSCREEN would be a helpful visual representation of key demographic and environmental indicators in areas near proposed projects. We recommend that EJSCREEN, and a more robust discussion of cumulative impacts, be included as an additional tool to help understand potential environmental justice impacts.

¹ 2014 Texas Statewide Commercial Marine Vessel Emissions Inventory and 2008 through 2040 Trend Inventories. August 16, 2015. Page 3-3.

² *Id* at 3-4.

³ www3.epa.gov/airquality/ozonepollution/pdfs/20151001datatable2025.pdf

⁴ <http://www2.epa.gov/ejscreen>

IV. EMISSION REDUCTION OPPORTUNITIES

This proposed project could be strengthened significantly by taking advantage of the available emission reduction opportunities. Specifically, we recommend that USACE and PHA specify in the contract for the proposed project that marine vessels and dredge equipment used in the project meet Tier 3 engine standards. An added value of this approach is that it may give additional market based incentives for those who have taken advantage of funding made available through the Texas Emission Reduction Plan (TERP) program. We also recommend that USACE seek emissions offsets to secure a conformity determination.

7

- The DGCD assumes that Tier 1 level diesel engines are to be used in the project. However, the Texas Emission Reduction Program has repowered over 350 marine vessels to cleaner Tier 2 and Tier 3 engines. Many of these vessels should be available for the project, which would result in important emissions reductions. We highly recommend that USACE and PHE stipulate in the contract for the project that only equipment with Tier 3 level engines qualify for work, therefore reducing emissions associated with the project.
- The DGCD seeks a written statement from the State of Texas documenting that the total emissions from the project will not exceed the SIP emissions budget. Particularly given that we consider that the projected emissions may be underestimated based on operation and load factors (see Section II), we believe that the most prudent option to demonstrate conformity is to fully offset the emissions. Considering the recently strengthened ozone standard and cumulative impacts facing nearby environmental justice neighborhoods, fully offsetting emissions associated with the project is the most appropriate option to demonstrate conformity.

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V. CONCLUSION

This project has an opportunity to not only improve safety along the Houston Ship Channel, but also to reduce emissions regionally. When aligning the load factor and hours of use estimates with those in TCEQ documentation, projected emissions indicate that the project will contribute to the region's struggling ozone attainment issues. In consideration of a strengthened ozone standard and the cumulative impacts of emissions on communities, we recommend requiring cleaner engines on the project and fully offsetting associated emissions.

10

Thank you for the opportunity to submit these comments. If you have any questions, please contact Elena Craft at 512-691-3452 or ecraft@edf.org.

Sincerely,



Elena Craft, Ph.D.
Senior Health Scientist
Environmental Defense Fund

cc: Texas Commission on Environmental Quality – Mr. Steve Hagle, P.E.
Port of Houston Authority – Mr. Kenneth Gathright; Ms. Leah Oberlin
U.S. Environmental Protection Agency, Region 6 – Mr. Wren Stenger
Houston-Galveston Area Council – Ms. Graciela Lubertino

Ms. Elena Craft, Ph.D.
Environmental Defense Fund

RESPONSE TO COMMENTS

Comment No.	Response
1	<p>Project equipment and operation will vary with project-specific situations including local conditions, restrictions, and practices. Therefore, emissions estimates will also. Please see the responses to Comments 2 and 3 related to this.</p>
2	<p>Although ideal dredge productivity would involve dredging 24 hours, this does not reflect actual or local conditions. Dredging does not occur continuously in the field due to a variety of reasons, including moving out of the way for commercial vessel passage, periodic resetting of anchors and spuds to reposition the dredge in the area being excavated, and the daily operational maintenance that has to take place on high-use equipment such as lubrication, inspection of swing, spud, and lift cables, and hydraulic and water line inspection.</p> <p>The proposed project will take place directly adjacent to the confluence of two of the busiest navigation channels in the whole Houston and Galveston Navigation Channels system, with more than 7,700 vessel calls annually on the BSC and 8,300 vessel calls and more than 200,000 barge transits on the HSC. The proposed Flare Easing is directly adjacent to the existing Flare, where vessels turn daily into the BSC. The proposed HSC Widener will take place directly adjacent to the bend near this confluence, in a segment of the HSC where vessel slowdown and congestion currently pose the problem being addressed by this project, as described in Section 1.10 of the PDR for this project. Because the dredging will take place directly adjacent to the existing channel where vessels currently have to turn, slow down, proceed with caution and receive tug assist, downtime to move the dredge out of the way when certain vessel and weather conditions occur, should be anticipated.</p> <p>Local hydraulic dredging project experience corroborates 16 hours of dredging per day, where a variety of the aforementioned factors result in this productivity. The 10% of time dedicated for minor maintenance and refueling mentioned in the comment equates to 2 hours (or 18 hours of daily productivity). Given this, the local project experience, and the location of the project at the confluence, 16 hours of dredging per day is appropriate.</p> <p>It should be noted that since the emissions were calculated based on the total cubic yards to be dredged and not on the run time of the dredge, the emissions would not increase with a change to the dredging operation hours per day; rather, the same emissions would be distributed over a slightly shorter time frame. However, the assumption of dredging 16 hours per day is appropriate for the reasons discussed.</p>

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3	<p>Load factors will vary with the local conditions, fleet, and operational experience of dredge planning personnel providing input to emissions estimates, and will therefore vary between projects. Load factors in the range of 0.6 (60%) to 0.69 (69%) have been used previously in conformity estimates for hydraulic dredging including the Matagorda Ship Channel Improvements, the Public Service Enterprise Group Artificial Island Early Site Permit Application, and the Sea Bright to Ocean Township: Elberon to Loch Arbour Reach projects. Other projects such as the Port Freeport Channel Widening and the Delaware River Main Channel Deepening projects used load factors for secondary dredge power of 0.4 (40%). The load factors used are within reason given the range observed in projects, and with the understanding that local project experience and conditions inform values used for estimates, and therefore, will vary between projects.</p>
4	<p>The DGCD and DEA reflect the current conformity status of the Houston-Galveston-Brazoria (HGB) Non-Attainment Area (NAA). For purposes of general conformity, the EPA is not making specific changes to general conformity regulations due to the newly released ozone standard (Paragraph 3., P. 65443, 80 FR 65291). Also, any change in the current NAA status would not come until October 2017, when the Environmental Protection Agency (EPA) will make the designations of attainment status for the 2015 standard (Paragraph D., P. 65412, 80 FR 65291). This would be well after the anticipated 2015 submission of the Final EA and Final GCD. Therefore the DEA and DGCD reflect the current conformity status and associated requirements.</p>
5	<p>The proposed project will not have permanent air emissions sources, is expected to alleviate congestion around the HSC and BSC intersection which would produce some long term maritime emissions reduction Also, due to its urgency, the proposed project is anticipated to be implemented in 2016, before the earliest deadline for attainment of this new standard which is 2020 (Designations and Permitting Requirements for the 2015 Ozone Standards).</p>
6	<p>The proposed project itself is wholly located in open water with the nearest populated census tracts over a mile away just north and south of the BSC. The EA for the proposed project already included examination of environmental justice (EJ) considering the detailed demographic data for those census blocks and found no demographic indicators of EJ population concentrations (minority status, income etc.) that would indicate a potential for disproportionately high and adverse impacts to EJ populations. The EJ data referenced in the EA was the more accurate 2010 full Census data with only limited use of income data from the American Community Survey (ACS). The technical documentation for EJSCREEN states ACS is used for EJSCREEN indices and recognizes that it has more uncertainty than the full Census.</p>
	<p>EJSCREEN is a very general tool that maps EJ demographics and general national datasets for various types of regulated environmental media only to preliminarily screen for potential indicators of EJ issues in the presence of demographic indicators of potential EJ populations, to probe the need for further action. It does not add context of these indicators relevant to a project's ability to produce</p>

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	disproportionately high and adverse impacts to EJ populations. From the EPA's own website, EJSCREEN is not used as a means to identify or label an area as an "EJ community", quantify specific risk values for a selected area, measure cumulative impacts of multiple environmental factors, or as a basis for agency decision-making or making a determination regarding the existence or absence of EJ concerns. Per Executive Order (EO) 12898, and EPA's Guidance on Considering Environmental Justice During the Development of an Action, the criteria for determining the target population for EJ policy is minority populations, low-income populations and indigenous peoples. The project is surrounded by water, and the nearest population that would be subject to the greatest exposures from the project (although they would be compliant with regulation and would be temporary), do not meet these EJ criteria.
7	The USACE, and not the PHA, will be implementing this project, and therefore contracting for the construction services. The limited population and availability of dredges appropriate for this project constrains the practical measures that can be taken contractually to require the suggested measures regarding use of engines meeting Tier 3 emissions standards. The USACE may choose to include in the evaluation criteria for contractor selection, the use of cleaner non-road and marine equipment. However, due to the limited population of hydraulic dredges of sufficient size, the USACE cannot restrict the process to only certain Tier of equipment in order to be able to receive sufficient bids for competitive procurement.
8	Please see the response to Comment 7 above.
9	Please see the responses to Comments 2 and 3. The emissions estimate contained appropriate assumptions for operational duration and load factors. Demonstrating conformity does not require purchasing offsetting credits, especially in the context of one-time construction emissions that are a small percentage of regional non-road and on-road emissions. As discussed in the response to Comment 6 above, the project does not have the potential to disproportionately and adversely impact EJ populations due to its location and the surrounding demographics.
10	The workday and load factor assumptions were appropriate as explained in the responses to Comments 2 and 3. The relevant cumulative impacts were already considered in Section 5 of the EA. The proposed project will not result in permanent air emissions sources or impacts, and is expected to alleviate congestion around the HSC and BSC intersection and reduce the demand for tug assist, which would reduce maritime emissions over the long term.