

Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

should be postmarked by May 3	· · · · · · · · · · · · · · · · · · ·	BBTRS@usace.army.mil. Comments articipation!
		
e ore		Affiliation Afiliación
ess ción de Envío		
	State Estado	Zip Code Código Postal —————

From: Ann Schutt-Aine
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou & Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 3:09:57 PM

Dear Army Corps of Engineers:

I a resident of Old Braeswood, and write to oppose the proposed diversion of flood water from Buffalo Bayou to Brays Bayou.

The Old Braeswood neighborhood is part of the Brays Bayou Watershed that lies just upstream of the Texas Medical Center. We experienced significant flooding during tropical storm Allison, but by the time of Harvey, although many of our streets were flooded, very few houses were. We attribute that difference to the Brays Bayou Widening project having been completed as far as Old Braeswood and slightly upstream by the time of Harvey. This project has been int he works for over 30 years and is about 80% completed. It is ONLY designed to handle water from the Brays Bayou Watershed, and diverting water from Buffalo Bayou to Brays could cause disastrous effects for our neighborhood, and threaten all of the work that has been accomplished. It is simply unfair to negatively impact another watershed by diversion from Buffalo Bayou.

It is not realistic to believe that the transfer of water from Buffalo to Brays would not threaten Brays Bayou property - one only had to look out of the window during Harvey and see the massive street flooding to know that we were very close to many homes being flooded and lost - the addition of water from another watershed would certainly push us over the top. The reassurance that the Army Corps of Engineers would not allow diversion if property was threatened in the Brays Watershed is similarly unrealistic - the pressure to use the diversion would simply be overwhelming during the next Harvey regardless of the damage to downstream Brays property, and the decision will be taken out of the Corps' hands.

There are certainly other solutions to help prevent future flooding in the Buffalo Bayou Watershed during a future Harvey event: the levees at Barker and Addicks reservoirs could be raised/built higher, and future development could be banned in the flood plain behind the levees. Allowing developers to continue building in a flood plain that is sure to flood in the next storm, and then "protecting" the houses built there by allowing established, historic neighborhoods that were established many years downstream to flood is both unfair and ludicrous.

While this is currently "only a study," it is certain that, if only one low-cost option is included, it is likely to prevail in the end. Let's take the diversion off the table or the political fight will prolong the study for far too long, and the next Harvey will be upon us with no progress. Let's get started with something that doesn't outrage approximately 800,000 people in the Bray's Watershed, most of whom vote, and make the study a realistic set of alternatives.

Sincerely,

Resident, Old Braeswood 2534 Glen Haven Blvd Houston, TX 77030 From: Schwartz
To: CESWT-BBTRS

Subject: [Non-DoD Source] I live in the Brays Bayou Watershed and wish to comment on the proposed plans for the

Buffalo Bayou and Tributaries Resiliency Study

M l.schwartz@comcast.net

Date: Wednesday, May 29, 2019 3:11:42 PM

Importance: High
Sensitivity: Confidential

Dear Sirs,

Larry Schwartz
Member of the Brays Bayou Association
Board member of Meyerland Community Improvement Association –
Section 8W
5223 Yarwell Dr
Houston, TX 77096

I wish to provide comments and feedback on the proposed plans for the Buffalo Bayou and Tributaries Resiliency Study. Living for over 30 years in the Brays Bayou Watershed I want to share my thoughts and concerns about some of the elements proposed.

- Conveyance Strategies Please do not connect the Southern end of the
 reservoirs and Buffalo Bayou into the Brays Bayou system. My concerns if they
 are connected who will actually make a decision on opening flow. Our
 watershed is of lower value than many parts of Buffalo Bayou and thus
 concerned we would be flooded in deference to Buffalo Bayou residents based
 only upon economic valuations.
- Tunnels proposed. I have heard from Brian Gettinger and wish to support this opportunity. My preference is for a tunnel from the Eastern Edge of Meyerland [29°40'46.6"N 95°27'36.0"W] which is at South Braeswood and the 610 feeder Road. This tunnel would inlet there and run to the Ship Channel/ Buffalo Bayou downstream of where Brays Bayou enters Buffalo Bayou. Total distance is approximately 13.6 miles.
- Additional detention in the headwaters of Brays Bayou; This would include but not totally exclusive of Westwood Country Club, Ruffino Hills and Braeburn Country Club. Either purchasing or acquiring through eminent domain these would provide 500+ acres of land and several thousand acre-feet of detention capacity.
- Flood warning systems that cover the whole region not just Harris County alone.

From: Robin.Fredrickson@lw.com

To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou & Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 3:21:00 PM

Attachments: Buffalo Bayou Study.pdf

Robin S. Fredrickson

LATHAM & WATKINS LLP

811 Main Street Suite 3700 Houston, TX 77002

Direct Dial: +1.713.546.7467

Fax: +1.713.546.5401

Email: robin.fredrickson@lw.com
Blockedhttp://www.lw.com

This email may contain material that is confidential, privileged and/or attorney work product for the sole use of the intended recipient. Any review, disclosure, reliance or distribution by others or forwarding without express permission is strictly prohibited. If you are not the intended recipient, please contact the sender and delete all copies including any attachments.

Latham & Watkins LLP or any of its affiliates may monitor electronic communications sent or received by our networks in order to protect our business and verify compliance with our policies and relevant legal requirements. Any personal information contained or referred to within this electronic communication will be processed in accordance with the firm's privacy notices and Global Privacy Standards available at Blockedwww.lw.com.



US Army Corps of Engineers.

Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation! I absolutely Hunk Haal it would not be a Good whe of public funds to divert water to Brays Bayou. Franks Bayou is overloaded and diverting water will place homes in surrounding areas at risk.
Name Robin Fredrickson Affiliation Affiliación
Address Dirección de Envío 2338 Underwood St
City Houston State TX Zip Code 7700Z Ciudad Código Postal
E-mail Correo Electrónico robin, fredrickson @ Lw. Com

Additional information can be found at:

https://www.swg.usace.army.mil/Missions/Projects/Buffalo-Bayou-and-Tributaries-Resiliency-Study/

From: <u>ljrafred1@gmail.com</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 4:19:36 PM

Buffalo Bayou and Tributaries Resiliency Study

Dear Army Corps of Engineers.

I live in Old Braeswood.

The Old Braeswood neighborhood is part of the Brays Bayou Watershed that lies just upstream of the Texas Medical Center. We experienced significant flooding during tropical storm Allison, but by the time of Harvey, although many of our streets were flooded, very few houses were. We attribute that difference to the Brays Bayou Widening project having been completed as far as Old Braeswood and slightly upstream by the time of Harvey. It has taken over 30 years to get this project to this stage and it is still only 80% finished. It has only been designed to handle water from the Brays Bayou Watershed. If water from Buffalo Bayou were to be released into Brays Bayou during the next Harvey event all those 30 years of work would be threatened. There is no reason to solve Buffalo Bayou's problem by making it Brays Bayou's problem.

I cannot possibly believe any assurances given by the Army Corps of Engineers or anybody else that the transfer of water from Buffalo to Brays would only be done if it caused no damage to Brays Bayou property. The pressure to use the diversion would simply be overwhelming during the next Harvey regardless of the damage to downstream Brays property. The decision will be taken out of the Corps' hands.

If you are actually looking for a relatively low-cost solution to future flooding in the Buffalo Bayou Watershed during a future Harvey event, build the Levees at Barker and Addicks reservoirs higher, not lower, and ban any further development in the flood plain behind the levees. It is frankly insanity to allow developers to keep building in a flood plain that you know will flood in the next storm, and then "protect" the houses built there by allowing neighborhoods that were established 80 years ago in the Bray's Watershed to be flooded.

I know that this is all being styled as a study only, but the outcome of the study will be preordained by the options included. If diversion from Buffalo to Brays is the only low-cost option looked at then we will be faced with a done deal whenever the study is finished. Let's take the diversion off the table or the political fight will bog your study down for way too long and the next Harvey will be upon us with no progress. Let's get started with something that doesn't outrage approximately 800,000 people in the Bray's Watershed, most of whom vote, and make the study a realistic set of alternatives.

Thank you,

Robert Frederick

2310 Glen Haven Blvd.

Houston, Texas 77030

From: Jim Bogardus
To: CESWT-BBTRS

 Cc:
 info@oldbraeswood.com; wsmitty1961@yahoo.com; gisette@theleathers.com

 Subject:
 [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study - Comment Form

Date: Wednesday, May 29, 2019 4:31:59 PM

Attachments: Buffalo Bayou and Tributaries Resiliency Study - Comment Form.pdf

Dear ACOE Representative,

Attached, please find my comments regarding the Buffalo Bayou and Tributaries Resiliency Study.

Kind regards,

James W Bogardus



<u>Comment Form (Formulario da Comentarios Escritos)</u>
Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

May 29, 2019

Dear Army Corps of Engineers:

My name is Jim Bogardus and I live Old Braeswood. I am a geologist by academic training and hold a BS and MS degrees with significant hydrological course work.

I have lived in my Old Braeswood home since 1995 and experienced the flooding from both Tropical Storm Allison (June, 2001) and Hurricane Harvey (August, 2017). While my home did not flood in either event, I experienced similar water encroachment: right to the base of the steps leading into my home. Of course, between these two events, the Brays Bayou Widening project took place (I am told that it is still not complete and lacks the remaining 20%). It doesn't take a hydrologist to recognize that if Braes Bayou Widening project had not taken place, Old Braeswood flooding during Harvey would have been much more severe.

It is also common sense to recognize that the proposed diversion of water from Buffalo Bayou catch basin into Braes Bayou would be disastrous for residents along Braes Bayou. Why would anyone consider taking a problem existing in one watershed and transferring it to another? I know, from the water levels I experienced during Harvey, that a similar future event would cause catastrophic flooding along Braes Bayou if water were diverted from Buffalo Bayou. TRANSFERRING THE PROBLEM IS NOT A SOLUTION.

The Corps employs a lot of brilliant people. Use that grey matter to tackle the root of the scientific problem: where to store runoff. Obviously, you will have to partner with politicians to deal with the human factor: the development that has already taken place in the best retention locations. I've heard the argument that the water diversion proposal is being pushed because it is inexpensive relative to other options. Personally, I don't buy this argument. Any proposal that does not solve the problem is just pouring money down the drain (excuse the metaphor). Cheap isn't the answer to a complex problem, and undeniably, the solution will be as complex (and expensive) as the problem.

My point is this: the Corps is better than the diversion proposal, use your smart people. However, if logic doesn't prevail, there is always litigation. I doubt anyone wants to go down that route, nonetheless, we have our fair share of lawyers, doctors and professionals living within the Braes Bayou catch basin. This option will waste time and money...and won't solve the problem. Meanwhile, Houston will experience more flooding and more human misery.

Again, you don't have to be a hydrologist to understand that logic.

Sincerely,

James Whozardus	
James W Bogardus	
2330 Glen Haven Blvd	
Houston, TX 77030	
wsmitty1961@yahoo.com	

Name James BOGAZOUS	CONCERNED Affiliation RESIDENT
Address Dirección de Envío 2330 GLEN HAVEN	BLVD
City State TX	Zip Code Código Postal 77030
E-mail Correo Electrónico WSM / TTY / 9G1© YA	HOO.COM

https://www.swg.usace.army.mil/Missions/Projects/Buffalo-Bayou-and-Tributaries-Resiliency-Study/

From: <u>Draetta, Giulio</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou & Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 4:33:26 PM

Dear Army Corps of Engineers:

I live in Old Braeswood.

The Old Braeswood neighborhood is part of the Brays Bayou Watershed that lies just upstream of the Texas Medical Center. We experienced significant flooding during tropical storm Allison, but by the time of Harvey, although many of our streets were flooded, very few houses were. We attribute that difference to the Brays Bayou Widening project having been completed as far as Old Braeswood and slightly upstream by the time of Harvey. It has taken over 30 years to get this project to this stage and it is still only 80% finished. It has only been designed to handle water from the Brays Bayou Watershed. If water from Buffalo Bayou were to be released into Brays Bayou during the next Harvey event all those 30 years of work would be threatened. There is no reason to solve Buffalo Bayou's problem by making it Brays Bayou's problem.

I cannot possibly believe any assurances given by the Army Corps of Engineers or anybody else that the transfer of water from Buffalo to Brays would only be done if it caused no damage to Brays Bayou property. The pressure to use the diversion would simply be overwhelming during the next Harvey regardless of the damage to downstream Brays property. The decision will be taken out of the Corps' hands.

If you are actually looking for a relatively low-cost solution to future flooding in the Buffalo Bayou Watershed during a future Harvey event, build the Levees at Barker and Addicks reservoirs higher, not lower, and ban any further development in the flood plain behind the levees. It is frankly insanity to allow developers to keep building in a flood plain that you know will flood in the next storm, and then "protect" the houses built there by allowing neighborhoods that were established 80 years ago in the Bray's Watershed to be flooded.

I know that this is all being styled as a study only, but the outcome of the study will be preordained by the options included. If diversion from Buffalo to Brays is the only low-cost option looked at then we will be faced with a done deal whenever the study is finished. Let's take the diversion off the table or the political fight will bog your study down for way too long and the next Harvey will be upon us with no progress. Let's get started with something that doesn't outrage approximately 800,000 people in the Bray's Watershed, most of whom vote, and make the study a realistic set of alternatives.

Giulio Draetta, MD PhD

Senior Vice-President and Head, Therapeutics Discovery Division

Chief Scientific Officer

Sewell Family Chair in Genomic Medicine

The University of Texas MD Anderson Cancer Center, Unit 1954

1515 Holcombe Blvd.

Houston, TX 77030

713-792-6370

Blockedhttp://www.cancermoonshots.org/ <Blockedhttp://www.cancermoonshots.org/>

Skype: giulio-usa

--

The information contained in this e-mail message may be privileged, confidential, and/or protected from disclosure. This e-mail message may contain protected health information (PHI); dissemination of PHI should comply with applicable federal and state laws. If you are not the intended recipient, or an authorized representative of the intended recipient, any further review, disclosure, use, dissemination, distribution, or copying of this message or any attachment (or the information contained therein) is strictly prohibited. If you think that you have received this e-mail message in error, please notify the sender by return e-mail and delete all references to it and its contents from your systems.

From: <u>Steve Finkelman</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou Comment Form

 Date:
 Wednesday, May 29, 2019 5:20:32 PM

 Attachments:
 USACOE Buffalo Bayou Comment Form.pdf

Please contact me if you need any additional information.

Thanks, Steve

Steven Finkelman Chief Financial Officer Scope Imports, Inc. 6300 West Loop S, Suite 100 Bellaire, Tx 77401 T 832-767-2001 (direct) F 713-680-2548 E stevef@scopeimp.com



US Army Corps of Engineers

Comment Form (Formulario do Comentarios Escritos)
Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

concerned about ce	sterin elements of	the plan which will
	· ·	pershed. Not only
to the potential 11	apact, but even	MOR SO regarding
	tice to those in	
watershed. My	understanding	, as well, is crossing
over water sheds	is highly unwi	ind.
	Thanks very	much,
-		
		3
Name Steven Fix	kelman A	Affiliation Affiliación and undu al
Address Dirección de Envío 5303	Braesherther D.	-146
City Toubu	State Estado	Zip Code 77 096
E-mail Correo Electrónico Stev	efe scopeim	

From: Bill Murray
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou & Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 5:34:15 PM

I live in Old Braeswood at 2402 Maroneal St. Houston TX 77030.

The Old Braeswood neighborhood is part of the Brays Bayou Watershed that lies just upstream of the Texas Medical Center. We experienced significant flooding during tropical storm Allison, but by the time of Harvey, although many of our streets were flooded, very few houses were. We attribute that difference to the Brays Bayou Widening project having been completed as far as Old Braeswood and slightly upstream by the time of Harvey. It has taken over 30 years to get this project to this stage and it is still only 80% finished. It has only been designed to handle water from the Brays Bayou Watershed. If water from Buffalo Bayou were to be released into Brays Bayou during the next Harvey event all those 30 years of work would be threatened. There is no reason to solve Buffalo Bayou's problem by making it Brays Bayou's problem.

I cannot possibly believe any assurances given by the Army Corps of Engineers or anybody else that the transfer of water from Buffalo to Brays would only be done if it caused no damage to Brays Bayou property. The pressure to use the diversion would simply be overwhelming during the next Harvey regardless of the damage to downstream Brays property. The decision will be taken out of the Corps' hands.

If you are actually looking for a relatively low-cost solution to future flooding in the Buffalo Bayou Watershed during a future Harvey event, build the Levees at Barker and Addicks reservoirs higher, not lower, and ban any further development in the flood plain behind the levees. It is frankly insanity to allow developers to keep building in a flood plain that you know will flood in the next storm, and then "protect" the houses built there by allowing neighborhoods that were established 80 years ago in the Bray's Watershed to be flooded.

I know that this is all being styled as a study only, but the outcome of the study will be preordained by the options included. If diversion from Buffalo to Brays is the only low-cost option looked at then we will be faced with a done deal whenever the study is finished. Let's take the diversion off the table or the political fight will bog your study down for way too long and the next Harvey will be upon us with no progress. Let's get started with something that doesn't outrage approximately 800,000 people in the Bray's Watershed, most of whom vote, and make the study a realistic set of alternatives.

Sincerely, William J Murray

Sent from Mail for Windows 10

 From:
 Bill Murray

 To:
 CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou & Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 5:53:37 PM

Attachments: BBTRS Comment Form 1.pdf

See Attachment comment for Buffalo Bayou & Tributaries Resiliency Study

 $Sent\ from\ Mail\ <Blocked https://go.microsoft.com/fwlink/?LinkId=550986>\ for\ Windows\ 10$



Comment Form Instructions

Buffalo Bayou and Tributaries Resiliency Study Public Information Meeting

Comment Period: April 29, 2019 through May 31, 2019

The U.S. Army Corps of Engineers is in the process of developing the Buffalo Bayou and Tributaries Resiliency Study which includes both Flood Risk Management and a Dam Safety Modification Study (DSMS). The flood risk management will identify and evaluate alternatives to reduce flooding upstream of the Addicks and Barker Dams as well as below in the Buffalo Bayou watershed. The DSMS will identify and evaluate alternatives to address Phase II measures of the Dam Safety Modifications on Addicks and Barker. Public input is especially needed regarding alternatives to consider.

USACE Galveston District ATTN: BBTRS P.O. Box 1229 Galveston, TX 77553-1229

Place Stamp Here

USACE Galveston District
ATTN: BBTRS
P.O. Box 1229
Galveston, TX 77553-1229



<u>Comment Form (Formulario do Comentarios Escritos)</u>

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

I am a resident of Old Braeswood and the significant flooding during Allison and our selection desinged to handle water from the Braysblem by making it Brays Bayou's Problem Buffalo Bayou to Brays Bayou and plants.	rays Bayou Wate em. I do not belie	rshed. There ve it is a good	is no reason to solve the Buffalo Bay I use of public funds to divert water
from Buffalo Bayou to Brays Bayou and pla	ace homes in Old	Braeswood a	at risk. ————————————————————————————————————
ne mbre <u>William J Murray</u>		Affiliation Afiliación	Old Braeswood Property Owner
dress ección de Envío 2402 Maroneal St			
dad <u>Houston</u>	State Estado <u>TX</u>		Zip Code Código Postal
nail reo Electrónico wjcm@wjmurray-assoc.con	n		

From: <u>derek</u>

To: <u>CJ Yeoman</u>; <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Re: The Future of Brays Bayou Flooding...

Date: Wednesday, May 29, 2019 6:34:01 PM

Attachments: Flooding study.pdf

Attached you will find a suggestion / question concerning the two reservoirs operations.

Derek I Lowenstein, PhD

Has the study considered that the operations specifications for the two reservoirs be modified. Suggest that you consider the implications of lowering the normal stored water volume and not lowering it from its present values during or just before a large rain event.

Derek I. Lowenstein , PhD

Brookhaven National Laboratory)retired)

5522 Rutherglenn Dr Houston, TX 77096

dereklowenstein@gmail.com

From:
To:
Subject:
Date:

Alan Morris
CESWT-BBTRS
[Non-DoD Source] Buffalo Bayou and Tributary Resilier

The attantal flow of water through Buffish Bayou and its tributaries are continuously hindred by the bank erosion of sand and other sediments that can cause water to back up and reduce the channel's flow rate. This can ultimately lead to more severe flooding in upstream areas and significant waterway maintenance events following assumes following assumes that the channel's flow rate.

There are found collection systems available, such as the Streamside Sediment Collection system that are already approved by ERDC for this purpose It monitors stream velocity and turns on during storm events to pull sediment out of these waterways. Companies such as Placement Area Solutions operate because in the contraction of the second contraction of





Photo taken from: (29 7255075, -95 761760

A.J. Morris Katy, TX Resident From: Mike Dach

To: CESWT-BBTRS: Ciliske, Charles W CPT USARMY CESWG (USA); Long, Richard K CIV USARMY CESWG (US)

Cc: Jeff Lindner; Lopez Matt; Robert Lazaro; Poppe Russ; Gabe Baker; Jack Cagle; Steve Radack; Brenda Stardig; Dan Crenshaw; Lizzie

Fletcher; Zach Despart

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study - Mike Dach Comments

Date: Wednesday, May 29, 2019 6:53:39 PM

Attachments: Buffalo Bayou Resiliancy Measures 20190529 LOEN Comments Summary.pdf

Bcc: Addicks Watershed CA & MUD Network

Bcc: LOEN CA Board of Directors
Bcc: Addicks Watershed LOEN Interests

To All: My comments are provided as Text in this Email body, and as an attached pdf file.

Date: March 29, 2019

To: USACE Galveston District

Attn: BBTRS PO Box 1229

Galveston, TX 77553-1229 EMA: BBTRS@usace.army.mil

From: Michael Dach

Addicks Watershed Flood Mitigation Network, Coordinator (1)

• Lakes On Eldridge North (LOEN), Flood Prevention Committee, Chairperson (2)

6014 Ballina Canyon Ln Houston, TX 77041-5795

Ph (C): 281-787-2322; EMA: dachauto1@gmail.com

Subject: Buffalo Bayou and Tributaries Resiliency Study

Study Phase: Public/Stakeholder Scoping Comment Period

Input Re: Addicks Watershed Flood Mitigation for

Addicks Reservoir North East and North Central Perimeter Communities

Summary of Priority Flood Mitigation Needs for Addicks Reservoir Perimeter Communities

- 1. Do not extend the Addicks Reservoir operational flood pool beyond current Reservoir boundary.
 - a. Perimeter CAs do not want major Loss of Community from this Option.
 - b. MUDs, CyFair-ISD, and Harris County do not want major Loss of Property Tax Base, from this Option.
- 2. Do not extend the NE Armored Auxiliary Spillway to cross Tanner Rd and approach WLY Rd.
 - a. ACOE informally mentioned this 108 ft elevation Spillway is not to be raised. No additional Reservoir capacity can be gained, because the ground elevation of adjacent communities (LOE & LOEN), and Tanner Rd, is 107-112 ft.
- 3. Consider moving the NE Armored Auxiliary Spillway closer to the Dam Outlet Structure.
 - a. This will reduce the Dam overflow volume passing thru lower elevation communities, businesses, and industries (bounded by East Levee to SH-8, and Tanner Rd to Memorial Dr); without changing the total Dam overflow entering Buffalo Bayou.
 - b. Reservoir Flood Pool could be kept closer to the Government owned boundary, by so moving the Auxiliary Spillway, plus lowering it to about 106-107 ft elevation.
- 4. Start storage projects in a timely manner, such that actual excavation volumes provide real-time storage volumes. It is neither prudent for Perimeter Communities, nor cost-effective for Governments, to wait for significant flood protection from mega-projects to become available around 2037, based on the Public Scoping Meeting handout on "Estimated Project Schedule".

- a. Total additional storage needed for Addicks Watershed to be roughly 50,000 90,000 acre-ft.
- 5. Increase stormwater storage in Addicks Reservoir downstream of flood threatened communities.
 - a. Within the Reservoir, Remove accumulated silt and debris, Desilt clogged tributary channels, Excavate topsoil, Dig new pump-out basins, and Build new settling basins.
- 6. Increase stormwater storage (dry basins and/or pump-out basins) upstream of flood threatened communities. Electric pumps would not have to be actuated until well after a rain event was over.
 - a. Upgrade upstream dry storage basins to long-term Retention, rather than short-term Detention. Automate the Retention Valves using level sensors.
 - b. Encourage large private wet (scenic) storage ponds to lower normal levels (by simple gravity flow) prior to heavy rain events. This provides cost effective and timely additional storage.
- 7. Modify Dam Operations to release more water during and after heavy rain events, without flooding downstream structures. Currently, ACOE finds the first house floods when the flow at Buffalo Bayou Piney Point Metering Station exceeds 4,300 CFS. Cost-effectively increase Buffalo Bayou safe flow capacity, from the Dams' outlet to Shepherd Rd, using channel improvements.

 8. Provide a Phone Flood Alert System that predicts Addicks Reservoir Pool Elevation vs Time. Individual CAs can correlate this to local street flooding. Residents can sign-up for one or both Alert Systems. Informal info indicates that HCFCD is developing a Phone Flood Alert System.

Note (1): The Addicks Watershed Flood Mitigation Network includes 30 Members who are local community leaders. These Members are mostly Directors from Bear Creek Village/Hunter's Park Civic Assoc (BCV/HP), Concord Bridge HOA, Eldridge Park HOA, Lakes On Eldridge (LOE) CA, LOE MUD 341, Lakes On Eldridge North (LOEN) CA, LOEN MUD 370, Twin Lakes CA, and Twin Lakes MUD 255. These comments have not be authorized by the Network Members ... no time to do so.

Note (2): The LOEN Flood Prevention Committee is a LOEN CA Board-appointed advisory committee. LOEN is a 1,081-residence community association east of N Eldridge Parkway, between Tanner Rd & West Little York (WLY) Rd. LOEN CA has a 5 Member Board of Directors, with 2 such Directors on the Flood Prevention Committee. These comments have not been authorized by the LOEN CA ... no time to do so.

Addicks Reservoir Perimeter Communities - Flooding Threats

It is well known that Reservoir perimeter community streets and structures have encountered past flooding from Langham Creek and/or Horsepen Creek during heavy rain events. Flooding has been due to both conveyance forward-flow bank topping, and Reservoir pool back-flow. Area communities face future flooding from heavy rain events, during which conveyances will route surges of stormwater (larger and faster) to the Reservoir, due to the following circumstances:

- HCFCD is doing a good job of rapidly desilting and repairing Major Tributaries upstream of Reservoir boundaries.
- Major Tributaries and Maintained Channels encounter Obstructions (silting/sandbars, plant growth on sandbars, elevated Clay Rd, and/or restrictive Clay Rd Bridge support beams) when crossing onto ACOE property in Addicks Reservoir.
- ACOE imposes work limits on MUDs and HCFCD, when authorized to perform channel clearing and maintenance on their respective conveyances inside the Reservoir boundary north of Clay Rd.
- ACOE does not plan to provide timely flood relief via **Completed Mega Projects** (Increased conveyance out of the Dams; Desilting of channels / Removal of accumulated debris / Excavation of new basins w/in the Dams; and Construction of a 3rd Reservoir north of the Dams).

Estimated Mega Project Completion Date = (Ref: Handout on Estimated Project Schedule: = Start Date + Study + Design + Build = (Oct 2018) + (3 Yrs) + (2 to 5 Yrs) + (10 to 15 Yrs) = ~ 2037

Should the Resiliency Study Team have questions about these Comments, we would be glad to meet with you and/or furnish documentation of the additional data and analysis that was developed to support these Comments.

Copies by Email

Long, Richard K	ACOE Natural Resources Manager	Richard.K.Long@usace.army.mil
Ciliske, CPT Chuck	ACOE Houston Project Office Manager	Charles.W.Ciliske@usace.army.mil
Poppe, Russell A	HCFCD Executive Director	Russ.Poppe@hcfcd.org
Zeve, Matt	HCFCD Director of Operations	[please forward to Matt]
Williams, Byron	HCFCD Chief of Project Management	[please forward to Byron]
Lazaro, Robert	HCFCD Communications Officer	Robert.Lazaro@hcfcd.org
Lindner, Jeffrey	HCFCD Dir Hydrologic Operations Div, Meteorologist	Jeff.Lindner@hcfcd.org
Lopez, Matt	HCFCD Precinct Coordinator	Matthew.Lopez@hcfcd.org
Hidalgo, Lina	Harris County Judge	Online Contact Form
Baker. Gabe	Harris County Judge's Asst	gabe.baker@cjo.hctx.net
Cagle, Jack	Harris County Commissioner Precinct 4	commissionercagle@hcp4.net
Radack, Steve	Harris County Commissioner Precinct 3	pct3@pct3.com
Stardig, Brenda	Houston Councilwoman District A	DistrictA@houstontx.gov
Crenshaw, Dan	US Congressman TX Second District	Blockedhttps://crenshaw.house.gov
Crenshaw, Dan	US Congressman TX Second District	RepDanCrenshaw@mail.house.gov
Fletcher, Lizzie	US Congresswoman TX Seventh District	RepLizzieFletcher@mail.house.gov
Despart, Zach	Houston Chronicle Reporter	Zach.Despart@chron.com

From: <u>Crocker, Maureen - HPW</u>

To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] HPW comments - Buffalo Bayou and Tributaries Resiliency Study

Date: Wednesday, May 29, 2019 7:36:28 PM

Attachments: image003.png

HPW comments.19may29.pdf

Please find attached comments from Houston Public Works regarding the BBTRS. Please contact me if additional information is required.

Maureen Crocker

Assistant Director | Infrastructure Planning & Prioritization Transportation & Drainage Operations | Houston Public Works (832) 395-3222 | Maureen.Crocker@houstontx.gov





CITY OF HOUSTON

Houston Public Works

Sylvester Turner

Mayor

Carol Ellinger Haddock, P.E. Director P.O. Box 1562 Houston, Texas 77251-1562

832.395.2500 www.publicworks.houstontx.gov

May 29, 2019

Mr. Andrew Weber, P.E. Project Manager, Galveston District U.S. Army Corps of Engineers P.O. Box 1229 Galveston, Texas 77553-1229

Dear Mr. Weber:

Houston Public Works (HPW) is responsible for construction, operation and maintenance of City of Houston infrastructure. HPW is working closely with its local partner, Harris County Flood Control District, to plan, design and construct drainage improvements throughout the City of Houston. Houston Public Works supports the U.S. Army Corps of Engineers (USACE) Buffalo Bayou and Tributaries Resiliency Study and its goal of developing alternatives for reduction of flood risks on Buffalo Bayou.

The potential measures that have been outlined to date are numerous and varied, including both structural and non-structural options. It is understood that a combination of both will be required to provide the greatest reduction in potential loss of life and property and avoid unmitigated adverse impacts.

Storage concepts outlined to date include additional detention within existing reservoirs and along existing channels. Conveyance concepts include tunnels and bridge modifications along existing channels.

These concepts have flood reduction benefits as well as potential impacts to City of Houston right-of-way and infrastructure. Houston Public Works would like to work closely with the U.S. Army Corps of Engineers during the upcoming alternative evaluation and analysis phase as the draft report is developed. HPW looks forward to further coordination in the coming year. I can be reached at Maureen.Crocker@houstontx.gov or (832) 395-3222.

Sincerely

Maureen Crocker-

Assistant Director

Houston Public Works

Council Members: Brenda Stardig Jerry Davis Ellen R. Cohen Dwight A. Boykins Dave Martin Steve Le Greg Travis Karla Cisneros Robert Gallegos Mike Laster Martha Castex-Tatum Mike Knox David W. Robinson Michael Kubosh Amanda K. Edwards Jack Christie

Controller: Chris B. Brown

From:

derek CESWT-BBTRS To:

Subject: [Non-DoD Source] Feedback to flooding study Date: Wednesday, May 29, 2019 7:38:30 PM

Attachments: Comment Form.pdf



Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

·	×		
-			
-			
-			
-			
ame ombre Derek I Lowenstein, PhD		Affiliation Afiliación	Brooknaven National Laborate
ame ombre Derek I Lowenstein, PhD		Affiliation Afiliación	Brookhaven National Laborato
ame ombre Derek I Lowenstein, PhD ddress rección de Envío _5522 Rutherglenn Dr		Affiliation Afiliación	Brooknaven National Laborate
ombre Derek i Lowenstein, PhD	State Estado TX	Affiliation Afiliación	Brooknaven National Laborate



Comment Form Instructions

Buffalo Bayou and Tributaries Resiliency Study Public Information Meeting

Comment Period: April 29, 2019 through May 31, 2019

The U.S. Army Corps of Engineers is in the process of developing the Buffalo Bayou and Tributaries Resiliency Study which includes both Flood Risk Management and a Dam Safety Modification Study (DSMS). The flood risk management will identify and evaluate alternatives to reduce flooding upstream of the Addicks and Barker Dams as well as below in the Buffalo Bayou watershed. The DSMS will identify and evaluate alternatives to address Phase II measures of the Dam Safety Modifications on Addicks and Barker. Public input is especially needed regarding alternatives to consider.

USACE Galveston District ATTN: BBTRS P.O. Box 1229 Galveston, TX 77553-1229

Place Stamp Here

USACE Galveston District
ATTN: BBTRS
P.O. Box 1229
Galveston, TX 77553-1229

From: Westphal, David W. (LDZX)

To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Input for BBTRS

Date: Wednesday, May 29, 2019 9:35:36 PM

To the US Corps of Engineers:

I would like to add my input to the Buffalo Bayou and Tributaries Resiliency Study (BBTRS). I am a resident of the Lakes on Eldridge subdivision located adjacent to Addicks Reservoir and west of the Addicks northeast auxiliary spillway. I am also the president of the Board for the Lakes on Eldridge Community Association, Inc., my personal home was flooded and also my son's home in the nearby Concord Bridge community was flooded.

After meetings with many interested parties, considerations of the reasons that upstream residents were flooded, and reviewing of proposed actions to mitigate future flooding risks, I have the following recommendations:

- 1. Flood mitigation will probably best be accomplished through a plurality of projects that will each incrementally reduce flooding impact and flood risk in West Houston both upstream and downstream of Addicks and Barker Reservoirs.
- 2. I support projects that would increase the capacity of the Addicks Reservoir flood pool within the current government owned land.
- 3. I support projects that will increase the safe conveyance rate of water out of the Addicks and Barker Reservoirs such as flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 4. I support projects that will safely impound storm water upstream of Addicks and Barker Reservoirs to reduce peak water elevations in the reservoirs and keep the water level in those reservoirs within the government land.
- 5. I support a Flood Warning System to alert subdivisions adjacent to a reservoir of any potential flood pool that could exceed 103 ft elevation.
- 6. I am strongly opposed to extending the levees to hold more storm water within Lakes on Eldridge or any private property.
- 7. I support expediting the BBTRS but also the prompt and un-delayed undertaking of projects and controls (even modest projects) that are certain to safely reduce flood risk such as expanding the capacity of Addicks and Barker Reservoirs through soil excavation.

Thank you for your attention and consideration.

From: Amanda Chancey
To: CESWT-BBTRS

Subject: [Non-DoD Source] Comment on Buffalo Bayou and Tributaries Resiliency Study

Date:Wednesday, May 29, 2019 9:59:17 PMAttachments:Buffalocomment 5434 Indigo St.pdf

Attached please find my comments.

I am a resident in the Brays Bayou watershed, and don't want to see yet another flood in my neighborhood. Amanda



Comment Form (Formulario do Comentarios Escritos)
Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

report. The information pres listed below. Please write yo free to use additional pages it mailing to the address on the	ur questions, comments, or sugge f needed. Forms may be submitte	neetings can be viewed at the website estions in the space provided below. Feel ed at the public information meeting, BBTRS@usace.army.mil. Comments
3 		
-		
ne nbre		ffiliation
		filiación ————————
ress		
ress cción de Envío ——————	State	Zip Code



Comment Form Instructions

Buffalo Bayou and Tributaries Resiliency Study Public Information Meeting

Comment Period: April 29, 2019 through May 31, 2019

The U.S. Army Corps of Engineers is in the process of developing the Buffalo Bayou and Tributaries Resiliency Study which includes both Flood Risk Management and a Dam Safety Modification Study (DSMS). The flood risk management will identify and evaluate alternatives to reduce flooding upstream of the Addicks and Barker Dams as well as below in the Buffalo Bayou watershed. The DSMS will identify and evaluate alternatives to address Phase II measures of the Dam Safety Modifications on Addicks and Barker. Public input is especially needed regarding alternatives to consider.

USACE Galveston District ATTN: BBTRS P.O. Box 1229 Galveston, TX 77553-1229

Place Stamp Here

USACE Galveston District
ATTN: BBTRS
P.O. Box 1229
Galveston, TX 77553-1229

Don Paul Jones, 30 Stillforest, Houston, TX 77024 (713-823-5063)

USACE Galveston District P.O Box 1229 Galveston, TX 77553-1229

Attention: BBTRS

Ref: Buffalo Bayou Meanders – The case against Tunneling or Channel Shortcuts to Straighten out the Bayou

Dear Sirs:

My property at #30 Stillforest St along with my neighbor at #31 Stillforest St, is located on a Buffalo Bayou meander or point. I understand there is a study to determine the feasibility of cutting through the point by either a tunnel or a channel to straighten out the bayou to lessen flooding upstream.

My father built the house at #30 Stillforest St in 1955. Fortunately he built the house on the higher elevation of the point that was certified to be above the 100 year floodplain before Hurricane Harvey. I have lived there since 1991 and have witnessed the behavior of Buffalo Bayou throughout many storms and hurricanes.

My house at #30 Stillforest St is located on the highest elevation of our point where the rest of the point is much lower. The 2007 FEMA map showed my house to be in the bayou's floodway. We proved by survey that this was a mistake by whoever drew the map. In 2012 I received from FEMA a "Letter of Map Revision Floodway Determination Document (Removal)" It was determined by survey that if the house was not in the 100 year floodplain it could not be in the floodway.

Elevations on the point go from about 64' to 40' or lower as you go east across the point. When the elevation of Buffalo Bayou goes up during a typical hurricane or flood event (2015 Memorial Day Flood or 2016 Tax Day Flood), the whole point floods because of its low elevation. Our house at #30 Stillforest has only flooded one time since 1955. That would be the biggest rain event in the history of the United States, Hurricane Harvey when we caught the crest of the flood and had one foot of water in our house for 8 hours.

Page 2 Buffalo Bayou Meanders

I have witnessed many times that when the bayou rises due to any rain or hurricane event, the bayou, by its nature, cuts across and floods approximately 90% of the point.

WHAT WOULD BE THE SENSE OF TUNNELING OR DIGGING A
CHANNEL ACROSS THE POINT TO STRAIGHTEN OUT BUFFALO
BAYOU WHEN THE BAYOU DOES IT NATURALLY??? HOW MUCH
WOULD YOU GAIN TO PREVENT FLOODING UPSTREAM?

Please see the attached documents.

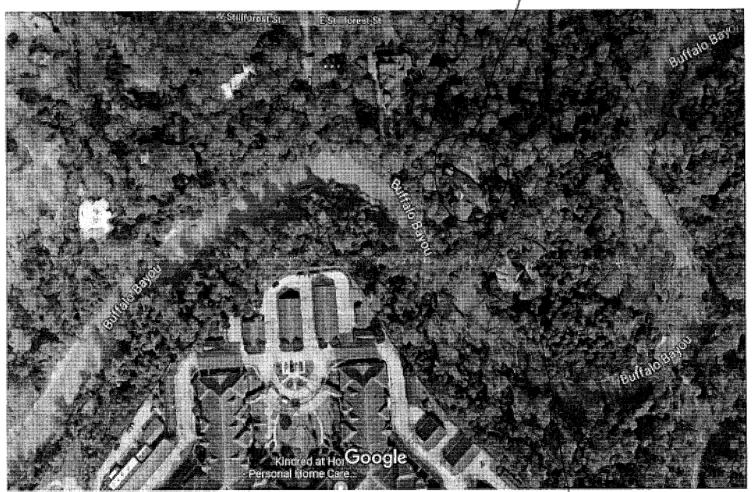
I invite anyone interested in determining the validity of straightening Buffalo Bayou by cutting across meanders to inspect "Jones Point". Please call me at 713-823-5063 and I will show you the point and what happens during a flood.

Thank you, Dan Pal

Don Paul Jones 30 Stillforest St Piney Point Village Houston, TX 77024 713-823-5063 donpjones@gmail.com

Google Maps

\$30 STILL FOREST



Imagery @2019 Google, Map data @2019 Google 100 ft #31 Shuboust

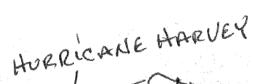
- (Î) Texas 249 Houston, TX
- (I) Kerrville TX
- Home 30 Stillforest St, Piney Point Village, TX 77024
- Set a work address

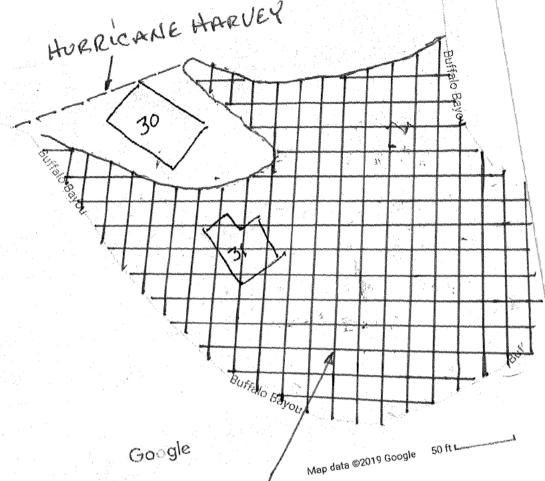
No traffic information to display

Search this area

80°

9





2015-FLOOD 2016-FLOOD EVERY STORM BEFORE HURRICANE HARVEY

- Texas 249 Houston, TX (i)
- Kerrville TX (0)
 - 30 Stillforest St, Piney Point Village, TX 77024
 - Set a work address

No traffic information to display

Search this area

80°



From: stmaunder@aol.com
To: CESWT-BBTRS

Subject: [Non-DoD Source] Comment for the Record: Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 6:58:24 AM

US Army Corp of Engineers, Galveston District

I am providing the following comments for consideration in the Buffalo Bayou and Tributaries Resiliency Study.

My home lies in the upper reach of the Barker impoundment area, "south of Fry and East of Peek". My home flooded in Hurricane Harvey.

I recommend that some amount of the study funds be expended on developing "off the shelf" response plans for the range of storms recently experienced.

Between 2015 and 2017, Houston in general and the Barker and Addicks watersheds in particular experienced three major rain events.

The storms varied in intensity with Hurricane Harvey >>>> Tax Day 2016 >> Memorial Day 2015. District responses and approvals varied as well.

I am not aware that any homes within the Barker confines were flooded by Tax Day or Memorial Day although it was close for Tax Day.

We all know that Harvey's deluge and the impoundment behind Barker flooded a multitude of properties. Recovery actions following Harvey, in particular channel desilting, were delayed by the regulatory process.

I don't believe I am alone in being frustrated by how long it took for silt excavation external to the reservoir to begin.

I am still frustrated that, so far as I know, such work on "government land" has not begun. Your glacial progress in this matter is unbelievable and unconscionable..

Delayed desilting still places upstream properties / residents being at a continuing higher flooding risk from lower intensity storms due to the choked channels.

I believe the time necessary for any near term response could be significantly shortened if these recent experiences are used to develop "off the shelf" plans.

The recent experiences can be used as templates for permitting and response actions. This should prevent "reinventing the wheel" for each event.

Having such plans available should also help dispel the perception and belief that the Corp sits on their hands and carries on as if no storm was experienced.

Thank you for providing an opportunity to provide comments on the scope of the Resiliency Study. Thanks as well for considering my recommendation for inclusion in the Study.

Respectfully submitted,

Thomas E. Maunder, P.E. 5918 Scarlett Bay Ct Katy, TX 77450

From: <u>Kristin Lucas</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou

Date: Thursday, May 30, 2019 7:10:04 AM

Good Day,

My thoughts on Buffalo Bayou:

The rivers and beaches of Texas belong to the people of Texas. If the river (or the beach) shifts and changes the contours of private land, then this can result in a loss of land for the private owner, but the private owner takes on this risk and does not have the right to modify the river or the beach.

I do not want the private owner nor the state nor any government agency to prevent the river from doing what it would naturally do. Having natural rivers and natural areas (not jacked around via construction projects) is the best long-term course of action for the people of Texas.

Kristin Lucas 6739 Lindyann Houston, TX 77008

Jonathan Shear CESWT-BBTRS From: To:

Subject:

[Non-DoD Source] Flooding Thursday, May 30, 2019 8:01:35 AM Date:

Attachments: army corps.pdf

My thoughts

Jonathan Shear



Public Information Meeting

US Army Corps of Engineers: Comment Form (Formulario do Comentarios Escritos)
Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

I DO NOT THIMU AD	0.533 8+18	. –	20 844 70
TO THE BRATES BAYOU	12110000 W	M-101 3	numera be mades
PAaburns nanditing	IN FOURS DU	DE DOCK	HANNE ATT S CONSONIA
- when will extend	ant to pro	BIOT M. D	ROTEG ADAIN
une neut A inti	BUT NOT BE	ATTER	the to some one
who thes draw st	enam. c	MALINE	AND FRANK
- Coxeni Dal SARF	21 Q. A. Com	0 04/ 00	AT Bond portion
DAMA WATER TWIT	URACE d	LACE/ON	in Brief
- My Nouse From	Mem OVERAL	DAY Z	OB-UN YOUT
1,000,000,00 TO BO	JOA vew	house, a	15 Am (1/4/
M 1 EN + 1400m 1	MAG EM	u nAI	m - 62200
- AND ALSADIES VER	pay Squas	- MAR A	osisile uns
- AU ACSAOUS Vee	10 Balans	CHEY	Q- LOT IT-BJUD
Triguer out Their o	an Solution	MSI	
8			
Name Nombre JOVANHAW 5 HOUR		Affiliation Afiliación	+bmeowny3?
Address Dirección de Envior 9707 CHECULE	usodro Si		
Dity AUSTON	State TX	2	Zip Code 77096
Tiudad 1993 VIV	Estado	(Codigo Postal
orreo Electrónico	HEM 55 EGO	n=(- 4	VA.
	832-684	1-4274	
&dditional.	information can be		
New 1/2	machinerian can be	round at:	THE RESERVE OF THE PARTY OF THE

https://www.swg.usace.army.mii/Missions/Projects/Buffalo-Bayou-and-Tributaries-Resiliency-Study/

From: Vogler, Mark
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study Comments

Date: Thursday, May 30, 2019 8:21:52 AM

Attachments: document.pdf@fortbendcountytx.gov 20190530 081211.pdf

Attached is Fort Bend County Drainage District's input for the Buffalo Bayou and Tributaries Resiliency Study. Thank you for the opportunity to comment.

DRAINAGE DISTRICT

Fort Bend County, Texas

May 30, 2019 U.S. Army Corps of Engineers Galveston District Attn: BBTRS P.O. Box 1229 Galveston, TX 77553-1229

To Whom It May Concern,

Thank you for providing the community and local governments the ability to submit input for the Buffalo Bayou and Tributaries Resiliency Study. As the local stakeholder with direct ties to our jurisdiction, we are well aware of the situation and issues our residents face. Many parts of the Buffalo Bayou were severely tested during Hurricane Harvey and with new rainfall data, it is expected that the frequency of this level of storm will only increase. We must do everything we can to help plan for that possibility and mitigate the risk to lives and property.

Over 50% of the homes that flooded in Fort Bend County during Harvey resulted from the pool elevations in Barker Reservoir extending outside the limits of the government owned land; therefore, Fort Bend County Drainage District recommend the following;

- Provide increased conveyance capacity downstream of Barker and Addicks Reservoirs to allow continuous releases from the reservoirs. Improvements to facilitate increased downstream conveyance could be provided by channel clearing and/or excavation along Buffalo Bayou. Diversion channels, or similar functioning structures, constructed from the reservoirs to the ship channel would also be acceptable.
- Increase the storage capacity within the reservoirs so that the reservoirs release rates and storage capacities are sufficient to contain the "Maximum Probable Event" within the limits of the Government owned land.
- 3. Construct structures to eliminate the impact of Cypress Creek overflows on the storage capacities and release rates of Addicks and Barker Reservoirs.

These are just three suggestions to help mitigate the problem that our communities faced during Hurricane Harvey and should be incorporated into the Resiliency Study. Some if not all of the suggestions help considerably in ensuring that our communities are better protected both in terms of lives and property.

If you require any further information or have additional questions, please do not hesitate to reach out to my office.

Respectfully

Mark Vogler, P.E.

Fort Bend County Drainage District Manager

Subject: From:

Date: Jim Stevens
CESWT-BBTRS
[Non-DoD Source] By pass Buffalo Bayou
Thursday, May 30, 2019 8:34:07 AM

reservoirs. Its time to design and build an underground by-pass channel to drain Addicks and Barker

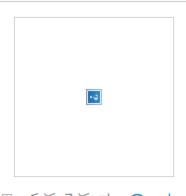
This has been the know solution for years.

its bypassed it can still maintain a percentage of flow and stay natural looking. Its also a way to save Buffalo Bayou and keep the environmentalists somewhat happy, since if

The technology exists to do this. Other cities have build drainage tunnels.

The only challenge would be avoiding and crossing the geologic faults.

Blockedhttps://www.therobbinscompany.com/products/tunnel-boring-machines/



Tunnel Boring Machines | The Robbins Company

world. A successful job comes from using a reliable, fast TBM rock, you want a TBM from a manufacturer who will support you buy a Robbins TBM. If you are planning to tunnel through you as your partner throughout the project, anywhere in the The Best Products for Tough Jobs You won't be alone when

Blockedwww.therobbinscompany.com

Houston, Tx 77042 10714 Cranbrook Road Jim Stevens thanks,
 From:
 Dessauer, Patrick

 To:
 CESWT-BBTRS

 Cc:
 dessauers@yahoo.com

Subject: [Non-DoD Source] Comment Form - Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 8:45:06 AM

Attachments: 20190530083421618.pdf

Patrick Dessauer

Please be advised insurance coverage cannot be altered, bound or cancelled by voicemail, email, fax, or online via our website and insurance coverage is not effective until confirmed in writing by a licensed agent.

The information in this transmission may contain proprietary and non-public information of McGriff, Seibels & Williams, Inc., BB&T, or their affiliates and may be subject to protection under the law. The message is intended for the sole use of the individual or entity to which it is addressed. If you are not the intended recipient, you are notified that any use, distribution or copying of the message is strictly prohibited. If you received this message in error, please delete the material from your system without reading the content and notify the sender immediately of the inadvertent transmission.



of Engineers.

Public Information Meeting

Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

My family and I have lived in Old Braeswood, a neighborhood that is part of the Braes Bayou Watershed just west of the Texas Medical Center, for over 20 years. During our 20+ years of living in Old Braeswood, we have experienced several major flood events. Although our home has so far been spared from floodwaters, on multiple occasions, flood water has gotten to within a few feet of our front door. Unfortunately, many of our neighbors closer to Braes Bayou have not been so lucky.

It has come to my attention that the ACOE is considering a plan to dig a trench to divert water from the Buffalo Bayou Watershed into the Braes Bayou Watershed to help mitigate future flooding in the Buffalo Bayou Watershed. I cannot see how anyone would see this is a logical thing to do other than those who want to simply pass on the flooding problems of one group of people to another. Clearly all that redirecting flood water from the Buffalo Bayou Watershed to the Braes Bayou Watershed will accomplish is increasing the likelihood of flooding neighborhoods boarding the Braes Bayou Watershed. While this may create some relief for the citizens living along the Buffalo Bayou Watershed it will do so at the expense of the citizens living along the Braes Bayou Watershed. This is patently unfair and misguided.

I urge the ACOE to look for more meaningful solutions that will actually address the real problem rather than simply diverting it to others. Certainly any plan the ACOE is considering should start with improve the levee system around the current reservoirs and the widening and deepening of the Buffalo Bayou Watershed similar to what is underway with the Braes Bayou Watershed. Anything short of this will simply be a band aid which will simply transfer the flood problems of one group to another.

STO-	_
ONTAINE STERCE	
State (E-4735	Zip Code 77030
Littado	Codigo i Ostai
	State TEXAS

From: <u>Don Jones</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-Dod Source] WHY CUT ACROSS MEANDERS WHEN THE BAYOU DOES IT NATURALLY?

Date: Thursday, May 30, 2019 9:32:22 AM

Attachments: 2019 05 30 09 25 30.pdf

Meanders.docx

USACE
Galveston District
P.O Box 1229
Galveston, TX 77553-1229

Attention: BBTRS

Ref: Buffalo Bayou Meanders – The case against Tunneling or Channel Shortcuts to Straighten out the Bayou

Dear Sirs:

My property at #30 Stillforest St along with my neighbor at #31 Stillforest St, is located on a Buffalo Bayou meander or point. I understand there is a study to determine the feasibility of cutting through the point by either a tunnel or a channel to straighten out the bayou to lessen flooding upstream.

My father built the house at #30 Stillforest St in 1955. Fortunately he built the house on the higher elevation of the point that was certified to be above the 100 year floodplain before Hurricane Harvey. I have lived there since 1991 and have witnessed the behavior of Buffalo Bayou throughout many storms and hurricanes.

My house at #30 Stillforest St is located on the highest elevation of our point where the rest of the point is much lower. The 2007 FEMA map showed my house to be in the bayou's floodway. We proved by survey that this was a mistake by whoever drew the map. In 2012 I received from FEMA a "Letter of Map Revision Floodway Determination Document (Removal)" It was determined by survey that if the house was not in the 100 year floodplain it could not be in the floodway.

Elevations on the point go from about 64' to 40' or lower as you go east across the point. When the elevation of Buffalo Bayou goes up during a typical hurricane or flood event (2015 Memorial Day Flood or 2016 Tax Day Flood), the whole point floods because of its low elevation. Our house at #30 Stillforest

has only flooded one time since 1955. That would be the biggest rain event in the history of the United States, Hurricane Harvey when we caught the crest of the flood and had one foot of water in our house for 8 hours.

I have witnessed many times that when the bayou rises due to any rain or hurricane event, the bayou, by its nature, cuts across and floods approximately 90% of the point.

WHAT WOULD BE THE SENSE OF TUNNELING OR DIGGING A CHANNEL ACROSS THE POINT TO STRAIGHTEN OUT BUFFALO BAYOU WHEN THE BAYOU DOES IT NATURALLY??? HOW MUCH WOULD YOU GAIN TO PREVENT FLOODING UPSTREAM?

Please see the attached documents.

I invite anyone interested in determining the validity of straightening Buffalo Bayou by cutting across meanders to inspect "Jones Point". Please call me at 713-823-5063 and I will show you the point and what happens during a flood.

Thank you,

Don Paul Jones 30 Stillforest St Piney Point Village Houston, TX 77024 713-823-5063 donpjones@gmail.com Google Maps

#30 STILLEOPUST



Imagery ©2019 Google, Map data ©2019 Google 100 ft

- C Texas 249 Houston, TX
- (Kerrville TX
- Home
 30 Stillforest St, Piney Point Village, TX 77024
- Set a work address

No traffic information to display

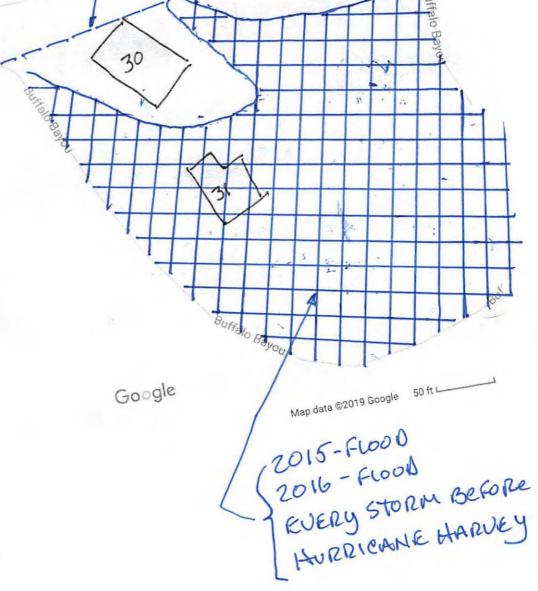
Search this area

80°



Buffalo Bayou

HURRICANE HARVEY

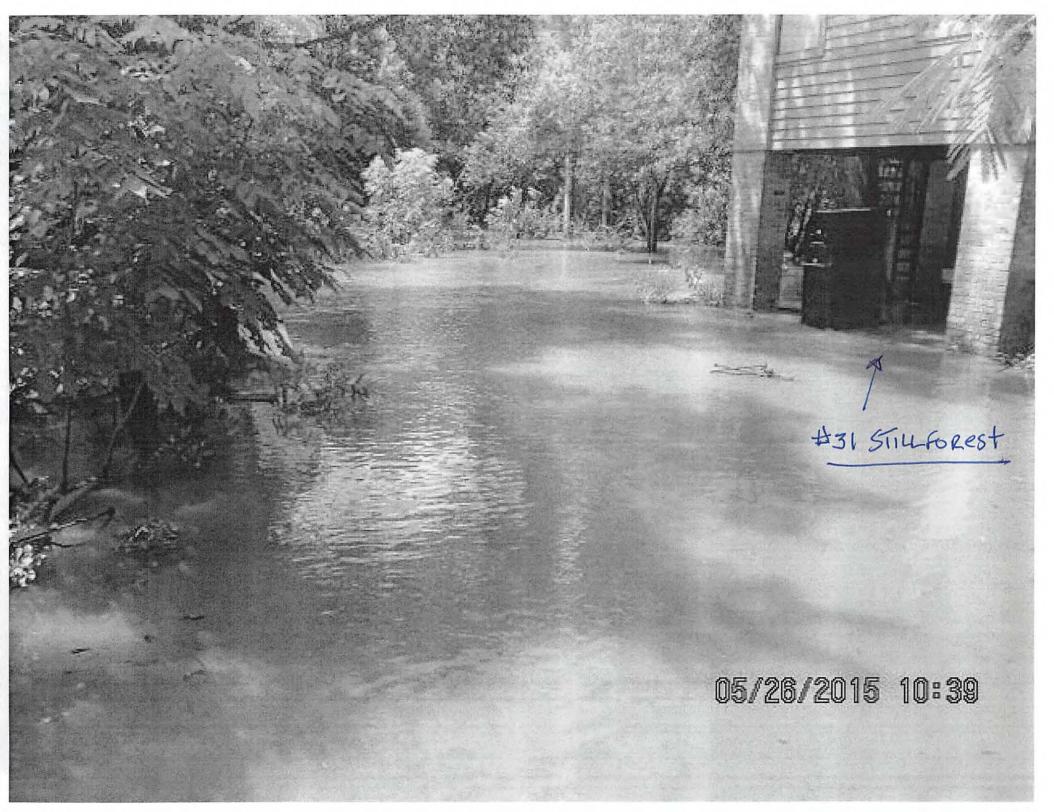


- Texas 249 Houston, TX
- - Home
 30 Stillforest St, Piney Point Village, TX 77024
 - Set a work address

No traffic information to display

Search this area

80°



From: <u>Darrell Campbell</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Barker Flood Prevention Date: Thursday, May 30, 2019 9:49:10 AM

Dear Sir/Madam.

As a victim of the recent Barker Reservoir flooding, I support the following proposals to prevent this from happening in the future:

- 1. Limit the Barker Reservoir flood pool to the current government owned land.
- 2. Increase conveyance out of the Barker and Addicks Reservoirs. Solutions I support include flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 3. Improve and restore channel conveyance and capacity upstream and downstream of Barker Reservoir and within the reservoir, including dredging, desilting and de-snagging.
- 4. Add capacity within Barker and Addicks Reservoirs through select excavation in the reservoirs. (Ex. 737-acre project that has been presented to the Corps located due east of Canyon Gate in the Cinco Ranch Area.)
- 5. Add intermediate detention/retention capacity upstream and downstream of Barker and Addicks Reservoirs.
- 6. Build infrastructure through a combination of viable solutions to manage Cypress Creek overflow to prevent Cypress Creek runoff from adversely impacting the Barker and Addicks watersheds.
- 7. Do not increase the Barker Reservoir flood pool by extending spillways.
- 8. Do not destroy existing neighborhoods, schools and businesses via large scale buyouts.

I lost my house, my furniture, my vehicles, and most importantly, lots of pictures and memorabilia that can never be replaced. In addition to being displaced from my home for months, it cost me a large portion of my savings to repair the house. Additionally, the incident devalued my house and impacts my ability to sell.

I would appreciate it if you would consider the above proposals and moreover, prevent my property from being intentionally flooded again.

Sincerely,

Pamela T. Campbell

From: Scott McCay
To: CESWT-BBTRS

Subject: [Non-DoD Source] Comments on Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 10:00:50 AM

Attachments: Comments on Buffalo Bayou and Tributaries Resiliency Study.pdf

To the U.S. Army Corps of Engineers:

Attached are our comments on the Buffalo Bayou and Tributaries Resiliency Study that we would like you to consider and implement to greatest extent possible. If you have any questions or would like some clarification, please notify me by email. It would be appreciated if you could acknowledge receipt of these comments by reply email.

Sincerely yours,

R Scott McCay

Comments on Buffalo Bayou and Tributaries Resiliency Study

Date: May 30, 2019

To: U.S. Army Corps of Engineers

We live upstream of the Barker Reservoir and our house did not flood during Hurricane Harvey, though the reservoir waters backed up into our yard. To mitigate future flooding events in this area, we think the U.S. Army Corps of Engineers ("Corps") should excavate large areas of the Barker Reservoir to allow for more water retention. The remaining land level after the excavation should be about a foot higher than the typical groundwater level. The existing parklands and fields could be rebuilt after the excavation, though we realize that they might be flooded more frequently since they would be closer to the water table. This might also allow more wetlands-related vegetation to grow in the reservoir and attract migratory birds.

The removed dirt from the excavation should be used to dam the western, upstream portion of the reservoir to minimize a repeat of the Harvey flooding. This should be done, first, by ensuring that all residences that stayed dry in Harvey remain dry in future Harvey-type storms. Second, the upstream dams should protect the residences that were only minimally flooded. Third, the tributaries that lead into the reservoir should have their sides strengthened to avoid spillovers. Fourth, those tributaries' connections to the reservoir might need some dams or devices that regulate flow into the reservoir and prevent backflow out from the reservoir.

Finally, those residences that were severely flooded and will likely be flooded again should be bought out for the price they paid for the houses, plus some equitable inflation factor for houses that are more than ten years old, or some other reasonable period. Those houses should then be demolished and incorporated into the buffer zone for the reservoir.

From: R Scott and Rebecca McCay

2018 Bendstone Circle, Katy, TX 77450. Email address: scott_mccay@yahoo.com

 From:
 wamique@aol.com

 To:
 CESWT-BBTRS

 Subject:
 [Non-DoD Source]

Date: Thursday, May 30, 2019 11:04:58 AM

Dear Sir/Madam

It has come to our attention that the Army Corp of Engineers (ACOE) has been conducting a \$6M federally funded study to mitigate flooding issues for the Buffalo Bayou watershed. We believe that is it not good use of public funds to divert water to Brays Bayou and place homes in the neighborhood at risk,.

We sincerely hope that someone will listen to our concern.

Yours sincerely

Wamique

Syed Wamique Yusuf 2325 Blue Bonnet Blvd Houston Tx 77030

Maureen Glancy CESWT-BBTRS From: To:

[Non-DoD Source] Buffalo Bayou and tributaries resiliency study Thursday, May 30, 2019 11:23:58 AM Subject:

Date:

Attachments: filename-1.pdf

Please see attached comment form.



Public Information Meeting

Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

II	ive in	old Br	aeswood.			
I de publicand	c funds	to di	it is overt wo	ter to	Brays	Bayou
58	ncerely,					
	H	aures C	ilan			
-						
	lureen			Affiliation Afiliación		
ddress irección de En	10 2325	Blue	Bonnet	Blvd.		
	ouston		State T Estado T	X	Zip Code Código Postal –	77030
ty udad He						

 From:
 0 state

 To:
 CESWT-BBTRS

Subject: [Non-DoD Source] Input to BBTRS

Date: Thursday, May 30, 2019 11:30:40 AM

May 30, 2019

U.S. Army Corps of Engineers Galveston District

Attn: BBTRS P.O. Box 1229 Galveston, TX 77553-1229

BBTRS@usace.army.mil

Dear Sir/Madam:

Thank you for the opportunity to provide community input regarding the Buffalo Bayou and Tributaries Resiliency Study (BBTRS). I am a resident of the Lakes on Eldridge subdivision located adjacent to Addicks Reservoir and west of the Addicks northeast auxiliary spillway. I am also the Chairman Lakes on Eldridge (LOE) Community Association, Inc., Flood Mitigation Committee. The LOE subdivision contains 748 homes, many which flooded during hurricane Harvey.

After meetings with many interested parties, considerations of the reasons that upstream residents were flooded, and reviewing of proposed actions to mitigate future flooding risks, I have the following recommendations:

- 1. Expedite actions and BBTRS to implement projects and administrative controls to reduce flood pool risk to 'upstream' reservoir stakeholders. Understanding the study may extend into 2021 and project design/construction phases could take over and additional 15 years, please consider taking more immediate action that will reduce upstream flood pool risk, such as expanding the capacity of Addicks reservoir through soil excavation. In order to capture greatest benefit, I recommend the excavations begin along Langham Creek on the southern end of the reservoir and transition to the north and west to insure every cubic yard of soil removed will result in an equal volume of capacity increase.
- 2. Limit the Addicks Reservoir flood pool to the current government owned land.
- 3. Increase conveyance out of the Addicks and Barker Reservoirs such as flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 4. Construct safe storm water storage upstream of Addicks Reservoir to manage Cypress Creek Overflow. Storage should be a minimum of 65,000 to 100,000 acre-ft and enable 4 to 6 weeks of storage (Addicks Reservoir held Tax Day (2016) storm water for approximately 11 weeks).
- 5. Implement meaningful upgrades to a Flood Warning System to alert subdivisions adjacent to a reservoir of any potential flood pool that could exceed 103 ft elevation.
- 6. Do not increase the Addicks Reservoir flood pool by extending spillways.

Thank you for your attention and consideration. these further with you.	If would welcome the opportunity to discuss
Regards,	
Kenneth Casey	

 From:
 Carol Caul

 To:
 CESWT-BBTRS

Cc: <u>Susan Chadwick;</u> <u>Ed Browne</u>

Subject: [Non-DoD Source] Comments: Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 11:35:34 AM

Attachments: comments re BBTRS to USACE dated may 30 2019.pdf

685 N Post Oak Lane Houston TX 77024-4606 713-680-3931

May 30, 2019

USACE Galveston District Attn: BBTRS PO Box 1229 Galveston TX 77553-1229 BBTRS@usace.army.mil

Comments: Buffalo Bayou and Tributaries Resiliency Study Scoping Meeting: Feasibility Report

Dear USACE BBTRS Staff:

I submit the attached comments regarding scoping for the Buffalo Bayou and Tributaries Resiliency Study Scoping Meeting: Feasibility Report.

Best wishes, Carol Caul, Esq 713-680-3931 685 N Post Oak Lane Houston TX 77024-4606 713-680-3931

May 30, 2019

USACE Galveston District Attn: BBTRS PO Box 1229 Galveston TX 77553-1229 BBTRS@usace.army.mil

Comments: Buffalo Bayou and Tributaries Resiliency Study Scoping Meeting: Feasibility Report

Dear USACE BBTRS Staff:

I submit my comments regarding scoping for the Buffalo Bayou and Tributaries Resiliency Study Scoping Meeting: Feasibility Report.

Authorization Cited for the Study Gives Very Broad Latitude to the Corps; Updated Earmarks Are Needed To Secure Authorization Through Completion of the Study

I do not have a problem at all with another study, but the funding for it should be tightened up as an earmark.

The Corps should ask Congress to tighten up the authorization for this study much like the authorization for the Ike Dike. The authorization is very vague to have earmarked the sums of money needed for completion of the study and later execution of the program. We have had other studies re needed repairs for Addicks and Barker Cypress Dams.

Section 216 of the River and Harbor Flood Control Act of 1970 (Public Law 91-611), Dec 31, 1970, does not mention Harris County Texas, Buffalo Bayou, or the two dams. The project does mention a number of studies as authorized, but does not include Buffalo Bayou among the earmarked...

Flood Control Act of 1954, Public Law 83-780 does mention Buffalo Bayou, but it does not refer to funding for studies, and the sum mentioned is too low. Again, this should be clarified and or funds should be authorized in Congress.

BUFFALO BAYOU BASIN, TEXAS

The project for Buffalo Bayou and tributaries, to provide flood protection for the city of Houston, Texas, as authorized by the Flood

53 Stat. 1414. Coutrol Act approved August 11, 1939, and previous Acts, is hereby modified substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 250, Eighty-third

Congress, at an additional estimated cost of \$16,191,600. (This is not adequate and has probably expired.)

DEIS should be disaggregated from scoping and feasibility study and prepared when options are winnowed down.

First, this report should not focus on resiliency (recovery), but rather on prevention and your goal to identify water resources and opportunities. At this stage, we are scoping and we should not use this stage of scoping to come up with preferred alternatives and a DEIS. That is far too broad a task to be able to execute on a reasonable timeline. I would recommend something like "Scoping: Feasibility of acquisition of resources for prevention and resiliency", then move from scoping to a reduced set of alternatives with USACE's preferred projects.

It looks as if the USACE plan is to construct a combined Draft Feasibility Report and Environmental Impact Statement. I assume that will be a draft environmental impact statement which will involve picking preferred alternatives (there should be more than one) rather than a (final) EIS. Each channel can be evaluated for its own preferred alignment or route, but again with water, the cost of gravity vs pumping and combinations thereof must be part of the costing.

I am a very strong supporter of NEPA analyses, but I am not certain a feasibility report requires a NEPA analysis at this stage unless the Corps mean to use the Feasibility Report to describe competing alternatives and choose among them as an action plan. That will be too many options to choose among. I think combining the two operations—feasibility report and NEPA analysis—will be very cumbersome and will take much more time than doing the documents separately. A scoping study should be broad enough to allow looking at pros and cons of all options before reducing the scope to a DEIS appropriate point. In any event, the public needs to be able to comment on the DEIS which would be followed by an FEIS.

Third, if a NEPA analysis is done combined with the feasibility study, USACE should be lead agency. Harris County should be required to sign a certification that it will not allow land developers to influence its input and that it will actually construct its portion of the facilities on a timely basis.

Each proposed form of infrastructure should have a marked Area of Study.

Again, buttressing my comment that the scoping stage before scoping is narrowed to a few options is too broad and complicated to try to prepare a DEIS. Each area for which a dam or channel is proposed should have its own area of study, or at least separate the types of projects.

Land Use and Cost Issues; Land Developers

How the Corps plans to keep developers away from its infrastructure is a major problem. Land developers and bad local land use planning and regulations and enforcement thereof cause the US Government a huge problem. Land developers should have to pay a cost if they develop within the boundaries of a study area.

Land development and land use create a huge problem for the project. Unlike local flooding projects which can be designed and modified or enhance to a fairly short term, the large scale

projects the Corps is looking at must have an appropriate design year. For a large project such as dam modification, the design needs to be constructed for a design year.

Fourth, the DEIS must not omit Indirect and Cumulative Impacts. The NEPA analysis must also include indirect and cumulative impacts in addition to predictive modeling of land use and population for the design year.

Water Control Facilities:

Storage Facilities: Dams, Reservoirs, and Detention Construction

Should a New Dam or Dams Be Built?

New dam construction at a proper place and size is an idea I support.

New dams could go one of two ways, or both: We could build a single new dam to handle Cypress Creek and development around Cypress Creek, and/or a series of say 3 smaller dams near our other major tributaries. The smaller dams would allow us to hedge our land use and development and climate change issues.

Land and land options

Developers should be kept away. The siting should be done ASAP. Land acquisition should be financed sooner rather than later. The land can always be resold if a project is not built.

<u>Operations cost, land costs, land availability, and usable storage</u> are all issues for the feasibility study. These facilities should either be scalable and a 20 year design or not scalable and a 50 year design.

Existing Dam Modifications: Dam Safety Modification Evaluation (DSME) on the two dams.

The website information about dam safety modification indicates three primary problems to be addressed:

- 1. Flooding downstream of the reservoirs on Buffalo Bayou
- 2. Performance and risk issues related to flow around and over the uncontrolled spillways
- 3. Flooding upstream of the reservoirs

<u>Design Year for Modifications to Addicks and Barker Cypress</u>. USACE and HCFCD should confer as to what that period is, e.g. 20 years for modifications for Addicks and Barker Cypress. A 20 year design will require a forecast or prediction of the various rainfalls that might occur during that time.

<u>Scalability</u>. Whatever change is made for a 20 year design period, the dams must be modified to be scalable to be increased in size at the end of the 20 year period. This can be something like the ability to dig out more depth or increase the height of the dam walls.

In terms of indirect (both remote and future) impacts, climate must be considered in the design year. I firmly believe we have to protect ourselves against the extremities of climate change. (I prepared comments for Citizens' Transportation Coalition for the Ike Dike, February 2019, because many transportation and fuel issues are involved with coastal flooding: shipping, freight rail, hazardous fuels, and evacuation routes. This study does not implicate transportation directly, so I am preparing these comments as an individual.).

Our reservoirs should focus more on rain capture.

The dams must be modified to deal with more rain. Of course, we may run to the "Spreading Desert", which is a theory about lack of rainfall. But safety is a goal. It is much safer to build for more rain than less rain.

Pumping. Pumping facilities need to be available and should be used, as needed, as a substitute for lack of elevation and used extensively like it is used for agricultural irrigation. Pumps use a lot of electricity. There may be a basis for using distributed, renewable energy not dependent on the grid.

Equipment and staffing: Dams and major reservoirs should be equipped with redundant measurement and release systems and staffing redundancies. Software should aid in early notification of releases. There should be funding for NOAA personnel to communicate with on site COE staff who communicate daily with decision makers. Early warning and release metrics and protocols must be put in place.

<u>Detention facilities</u>. Harris County can develop systems for detention facilities management and drainage, but it must be subject to strong reporting and oversight. Bond practices should be reviewed.

Land Development Ordinances and Practices. The Corps does not have control over this issue. The joint feasibility study will have to include direct punishment such as withholding funds for development or indirect punishment such as suspension and debarment from participating in FEMA grants.

Harris County and its cities are at the whims of land developers. Nobody knows this better than the Corps, e.g. Cinco Ranch. The City of Houston is the worst. Council Members and the Mayor are really corrupt about land development. As long as the city and the county do not build in accordance with standards and conform to FEMA mapping standards rather than allowing for political horsetrading, variances and grandfathering Until HCFCD and City of Houston

Reservoirs and Water Storage Facilities to Store Fresh Water; Pumping Projects May Be Needed

If our population grows or if we get into water wars, we may need to use some of the facilities as a reservoir. With climate change, it can be hard to envision, but Houston's fresh water supply is not that secure.

With our flat rivers, it is hard to imagine using our local dams as reservoirs unless accompanied with fake elevation, i.e. pumping. I strongly support pumping of water, whether pumping water out of depressed freeways or for agriculture or for storing clean fresh water.

Water Conveyance Facilities:

<u>Getting right to it, I do NOT support a channel to the Gulf</u>. This might have worked 40 years ago, but I am skeptical now and in the 10-20 years it might take to build.

If we do have to do this, and I hope not, the project should be commenced upstream heading toward the Gulf. That way if the project has to be abandoned like a light rail construction might be stopped due to funding or political issues, the channeling built to date might be able to connect to a different tributary and be of some use. Of course, any digging could be covered and the land sold to land developers.

If you build one, it will need its own Ike Dike to stop mini storm surge and salt water incursion.

Land costs will be astronomical and much condemnation will probably be necessary.

It might be possible to build a series of interconnected channels to accomplish the same goal.

I support smaller channeling projects, and they can be complex and innovative. Channeling initiatives should be honestly evaluated with respect to effectiveness in our flat river environment. Channeling does not all have to be concreted especially if concrete does not friction where the water does not move. The Corps needs to decide what is more effective in terms of conveyance and in terms of environmental attributes.

Pumping should be considered rather than relying solely on elevation changes.

Drinking Water Conveyance Facilities:

Neither of the authorizations really cover anything specifically or in a great enough sum of money, so the study should be expanded to include drinking water conveyance. The city's drinking water compacts are not secure and are covered by state law which is mercurial. If we can spend billions building a ditch to the Gulf of Mexico, we can consider piping in water and storing it at a dam. I cannot imagine such a dam would provide a headwall for hydroelectric power or even recreational facilities, but the idea should be considered at least on a co-benefit analysis basis.

Coordination with City and County Stormwater and Drainage Infrastructure and Land Development

USACE should strongly urge the city and county to adhere to their stormwater and drainage ordinances and guidances, land development and planning. The Corps could discuss penalties for noncompliance. With noncompliance by local entities, more pressure is put on the Corps and Corps costs are increased.

Costs to the Corps due to noncompliance by local entities must be included as an indirect impact because the Corps will bear the ultimate responsibility.

Hurricane Harvey Resiliency

Resiliency is a good thing, but prevention and avoidance are better. There was a major study in place discussing needs for the dams. Why was the on the ground preparedness so bad?

The Corps had to make some horrible choices as a result of operations of Barker Cypress and Addicks. Why gauges failed and there were redundancies, why there was no operations manual or other training teaching the Corps what to do, why water was not released earlier, are all questions that have to be asked, and they are not intended as Monday morning quarterbacking.

The Dam Studies and Modifications Should Not Be Used As an Excuse To Avoid Legal Liability For Tucker Act Claims Arising Out of Hurricane Harvey. This Sort of Tactic Is Often Used In Harris County by Both the County and the City of Houston.

I do not like it, but we already had a dam study. The Corps should have had release and notification plans. The Corps should have had equipment and staff redundancies. Bad decisions were made. That is very unfortunate, but it is not an act of God.

I greatly appreciate the opportunity to submit comments at this stage of your scoping and look forward to further opportunities for public comment.

Respectfully submitted, This 30th Day of May, 2019

/s/ Carol Caul 685 N Post Oak Lane Houston TX 77024-4606 Ph: 713-680-3931 From: Parisi, Terry
To: CESWT-BBTRS

Subject: [Non-DoD Source] Barker Flood Control

Date: Thursday, May 30, 2019 11:54:38 AM

To whom it should concern,

On behalf of the Barker Flood Prevention advocacy group and myself I won't to thank you for the time you have spent trying

to relieve a bit of the concern myself and many of my neighbors have concerning the progress made in the solutions to flooding in the Katy/Fort Bend area. Below are the points discussed and studies to be considered. I understand it will take a while to commit

to a solution. Meanwhile the community lives in a state of panic (PTSD) every time it rains. First and foremost the Buffalo Bayou from 99 and Peek to the Barker Reservoir need to be restored to the original depth. De-silting and restoring the banks should be a top priority before another storm like Harvey approaches the coast.

Our steering committee members also attended, and after careful consideration, have adopted the following recommendations:

- 1. Limit the Barker Reservoir flood pool to the current government owned land.
- 2. Increase conveyance out of the Barker and Addicks Reservoirs. Solutions we support include flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 3. Improve and restore channel conveyance and capacity upstream and downstream of Barker Reservoir and within the reservoir, including dredging, desilting and de-snagging.
- 4. Add capacity within Barker and Addicks Reservoirs through select excavation in the reservoirs. (Ex. 737-acre project that has been presented to the Corps located due east of Canyon Gate in the Cinco Ranch Area.)
- 5. Add intermediate detention/retention capacity upstream and downstream of Barker and Addicks Reservoirs.
- 6. Build infrastructure through a combination of viable solutions to manage Cypress Creek overflow to prevent Cypress Creek runoff from adversely impacting the Barker and Addicks watersheds.
- 7. Do not increase the Barker Reservoir flood pool by extending spillways.
- 8. Do not destroy existing neighborhoods, schools and businesses via large scale buyouts.

Barker Flood Prevention has a membership and support base of more than 600 people. We expect that the Corps can rely on this substantial support base in addition to our steering committee and leadership when considering and valuing these recommendations.

We would welcome the opportunity to discuss these further with you.

Yours sincerely,

Terry Parisi

Texas Law requires all real estate licensees to provide the following Information:

Texas Real Estate Commission Consumer Protection Notice

<Blockedhttp://www.soarnet.com/images/TREC_1.pdf>
Texas Real Estate Commission Information About Brokerage Services

<Blockedhttp://members.har.com/mhf/terms/dispBrokerInfo.cfm?sitetype=aws&cid=641606>

Wire Fraud is Real. Before wiring any money, call the intended recipient at a number you know is valid to confirm the instructions. Additionally, please note that the sender does not have authority to bind a party to a real estate contract via written or verbal communication.

 From:
 Russell Rush

 To:
 CESWT-BBTRS

Cc: commissionercagle@hcp4.net; dwayne.bohac@house.texas.gov; matt.zeve@hcfcd.org;

joel.green@mail.house.gov; crenshawoffice@mail.house.gov

Subject: [Non-DoD Source] BBTRS - Public Comment from Harris County MUD 341

Date: Thursday, May 30, 2019 12:24:29 PM
Attachments: HARRIS COUNTY MUD 341.docx

To whom it may concern,

Please see attached letter from the Directors of Harris County MUD 341, providing comments and recommendations regarding the Buffalo Bayou and Tributaries Resiliency Study.

Thank you,

Russell Rush President, Harris County MUD 341

HARRIS COUNTY MUD 341

c/o Schwartz, Page and Harding L.L.P. 1300 Post Oak Boulevard, Suite 1400 Houston, TX 77056

May 30, 2019

U.S. Army Corps of Engineers Galveston District Attn: BBTRS P.O. Box 1229 Galveston, TX 77553-1229 BBTRS@usace.army.mil

Dear Sir/Madam:

Thank you for the opportunity to provide community input regarding the Buffalo Bayou and Tributaries Resiliency Study (BBTRS). I am the President of Harris County MUD 341 and a resident of Lakes on Eldridge, which is a community located adjacent to Addicks Reservoir and west of the Addicks northeast auxiliary spillway. You are probably aware that Hurricane Harvey flooded our entire community. As a result, over 225 homes flooded, causing massive evacuations of the majority of the residents.

For your consideration and action, the following recommendations are provided:

- 1. Limit the Addick's Reservoir flood pool to the current government owned land.
- 2. Increase conveyance out of the Addicks and Barker Reservoirs such as flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 3. Construct safe storm water storage upstream of Addicks Reservoir to manage Cypress Creek Overflow. Storage should be a minimum of 65,000 to 100,000 acre-ft and enable 4 to 6 weeks of storage (note: Addicks Reservoir held Tax Day (2016) storm water for approximately 11 weeks).
- 4. Implement meaningful upgrades to a Flood Warning System to alert subdivisions adjacent to a reservoir of any potential flood pool that could exceed 103 ft elevation.
- 5. Do not increase the Addicks Reservoir flood pool by extending spillways.

In closing, please take action to expedite the BBTRS and implement projects and administrative controls to reduce flood pool risk to 'upstream' reservoir stakeholders. Understanding that the study may extend into 2021, please consider taking more immediate action that is factually known to reduce flood pool risk, such as

expanding the capacity of Addicks reservoir through soil excavation. In order to capture greatest benefit, I recommend the excavations begin along Langham Creek on the southern end of the reservoir and transition to the north and west to insure every cubic yard of soil removed will result in an equal volume of capacity increase.

From: <u>lona Alphonso</u>
To: <u>CESWT-BBTRS</u>

Subject:[Non-DoD Source] Addicks dam proposaDate:Thursday, May 30, 2019 12:27:58 PM

I want to voice my displeasure and one for NO DAM on the Addicks reservoir since it will affect the area where I live. I flooded during Harvey and had NEVER flooded before. The proposed Addicks dam will make things worse for us here in Spring.

Thank you,

Iona Alphonso 19803 Broadhead Manor Dr Spring TX 77379 281-704-7138 From: Mohamed Shehata
To: CESWT-BBTRS

Subject: [Non-DoD Source] Barker reservoir flood prevention advocacy group

Date: Thursday, May 30, 2019 12:41:56 PM

Re:

Blockedhttps://www.barkerfloodprevention.org/

Blockedhttps://www.barkerfloodprevention.org/assets/Barker%20Flood%20USACE%20Recomendation%20%2005162019.pdf

Dear Sir/Madam:

On behalf of all landowners WITHIN the Barker Reservoir who were or were not flooded, and the Barker Flood Prevention advocacy group, I'd like to thank you for the opportunity to provide my input on future plans for Barker Reservoir flood prevention remediation.

My home was flooded during Harvey, and although it is just one in many tens of thousands, it has had a serious, long-term, emotional and financial impact on our family. I hope you will consider this in the grand scheme of things!

Here are my recommendations:

- 1. Please find a way to remove the stored water quickly using bypass tunnels or other means; of course, avoiding further flooding in downtown Houston. From the performance of the reservoir/dam during Harvey, it seems that the stored waters should be removed through a different path. A bathroom tub has an overflow system to prevent the water from reaching the floor and similarly, there ought to be one in this reservoir to prevent it from filling and backing up into our neighborhoods.
- 2. Increase the flow through the neighborhoods by dredging the bayous, so the water doesn't get high enough to breach them into our neighborhoods. Although dredging was done in Buffalo Bayou northwest of Peek and Fry roads, the section from Fry Road southeast to where the government-owned land starts, was not. This had a dramatic effect during the Dec 7, 2018 rainfall. Happy to hear that permission was given to dredge this section, although I do not know the progress. I have dramatic pictures with water just 18-24" below the bayou lip, the day before and after this deluge.
- 3. Increase the capacity of the reservoir on government-owned land, so that it can hold more water and not back up into our neighborhoods. An enormous amount of silt has collected further reducing the capacity of the reservoir. This needs to be dredged, just like the bayous.

I'm sure there are many things that can be done, but I believe just ensuring these three things, will essentially eliminate the catastrophe that happened on the upstream side.

Thank you for your time and effort in helping us retain the value of our investments and for keeping us safe.

Mohamed Shehata. MD FACP Sent from my iPhone

From: <u>Carolyn White</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Public Comment - Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 1:17:27 PM

Attachments: image001.png

image002.png image003.png image004.png

2019-05-30 USACE Comment Letter BBTRS.pdf

May 30, 2019

Andrew Weber, P.E, Study Manager USACE Galveston District P.O. Box 1229 Galveston, TX 77553-1229 ATTN: BBTRS

Email: BBTRS@usace.army.mil

Dear Mr. Weber,

Thank you for providing the opportunity to comment on the Buffalo Bayou and Tributaries Resiliency Study (BBTRS). As Conservation Director of Memorial Park Conservancy (MPC), and a fluvial geomorphologist formerly with the Harris County Flood Control District (HCFCD), I have a strong interest in preserving the natural Buffalo Bayou channel, while achieving site stability, water quality improvements, and public access.

MPC is a non-profit organization that manages 1,100 acres of Memorial Park that is bounded on its southern edge by a natural 3.8-mile segment of Buffalo Bayou. Over many decades adjacent landowners have installed structures to harden the edge of Buffalo Bayou, resulting in deleterious impacts to the natural streambanks. Addicks and Barker reservoir release schedules have also greatly impacted the slope stability by inducing sustained high flows and rapid drawdown. In addition, the last three major storms - Tax Day, Memorial Day, and Harvey - have exacerbated this streambank stress, resulting in extreme land loss. Memorial Park has experienced 20-50 feet of horizontal erosion on multiple entrenched streambanks ranging from 10-20 feet vertical relief. This amount of erosion and sedimentation within Buffalo Bayou has direct impacts to water quality, conveyance capacity, and dredging requirements for the Port of Houston.

MPC advocates addressing the flood damage reduction issues within the Buffalo Bayou watershed through 1) conveyance improvements using natural stable design principles and 2) appropriate siting and design of detention facilities, as outlined below.

Conveyance with Geomorphic Stability

Harris County Flood Control District (HCFCD) has invested much effort in developing a Natural Stable Channel Design Guidance Manual that outlines principles of fluvial geomorphology within a local flood conveyance framework. The USACE staff should work with HCFCD staff to incorporate those

guidelines into the BBTRS.

Channel instability and sediment transport issues are remedied through stream restoration that appropriately resets the bayou's:

- channel cross section building bankfull benches; establishing connectivity to geomorphic floodplain
- longitudinal profile establishing pool and riffle complex for effective transport of sediment and flow as well as habitat enhancement
- meander pattern alleviating overtighten meander bends and establishing oxbow habitat

USACE should study the permitted Memorial Park Demonstration Project as an example of reach-scale stream restoration on Buffalo Bayou (SWG-2012-01007).

MPC also recommends that the USACE conduct a comprehensive geomorphic assessment and Watershed Assessment of River Stability and Sediment Supply (WARSSS) of Buffalo Bayou that follows up on the work of Harris County Flood Control District's Charting Buffalo study. The Technical Appendix from this study provides details regarding Buffalo Bayou channel stability, erosion rates, Bank Erosion Hazard Index (BEHI), sediment transport, habitat, as well as recommendations for conveyance improvements.

In looking at conveyance options that were presented at the BBTRS public meeting on May 8th, I noted that some type of bypass channel within the Memorial Park reach is being considered. USACE staff should note that Memorial Park Conservancy, along with project partners is implementing the Master Plan that was approved by Houston City Council in 2015. A large-scale project to construct bypass channels or tunnels within Memorial Park would cause damage to the park and its ecosystem.

In a 2016 Initial Biological Assessment, MPC consultants discovered a breeding population of a State-listed reptile, the alligator snapping turtle (*Macrochelys temminckii*). Because of this finding, distributional research of this species within Memorial Park and all of Buffalo Bayou has continued to augment information on the conservation status of the reptile.

Appropriate Detention

The effectiveness of flood damage reduction from a detention facility should be fully understood prior to advancing and publishing alternative information. Detention within lower watershed areas will not effectively remove structures from the floodplain. To address flood damage reduction within Buffalo Bayou watershed, it is more appropriate to look at areas upstream of the reservoirs and remove structures from the floodplain. Buyouts of properties inside the reservoirs and increased reservoir capacity are effective detention alternatives.

In the materials presented at the BBTRS public meeting on May 8th, I noted that a detention basin alternative is being considered within Memorial Park. USACE staff should be aware of the Memorial Park master plan implementation projects currently funded at \$205 million to be completed in the next nine years. Memorial Park is Houston's largest urban park with a truly unique ecosystem, as

well as state historic landmark status.

In reviewing the information provided in the public meeting, it seems that USACE staff are not familiar with Memorial Park, the 2015 Master Plan, nor its reverter-holder interests. I would be happy to meet with USACE staff to discuss the unique features of Memorial Park. In addition, I have a strong interest in USACE continuing to refine the geomorphic analyses that HCFCD started with the Charting Buffalo study and broadened with their Natural Stable Channel Design Guidance Manual. I would be happy to discuss or participate in fluvial geomorphology workshops or field tours. If you have any questions, or would like to discuss further, please contact me at: cwhite@memorialparkconservancy.org or 832-799-0955. Thank you.

Sincerely,

Carolyn White

Conservation Director
Memorial Park Conservancy
7575 North Picnic Lane, Houston, Texas 77007
832-799-0955 (Cell)
713.863.8403 (MPC main)
cwhite@memorialparkconservancy.org
CPESC #4723



- **6** @MemorialPark
- @MemorialParkConservancy



Chairman Steve Jenkins Vice Chairman Casey Doherty Secretary Adam Newar Treasurer Margaret Pierce

Directors

David Berry Myron G. Blalock III John Briscoe Chuck Carlberg Claire Caudill John Garibaldi Kate Gibson Randall Grace Michael Graslev Richard Hightower Kenneth Huewitt Dennis Johnston Sabrina Kirwin John Paukune Carrie Pepi John Porter Dena Prasher Philip Schneidau Ashley Small Anita Smith Terri Thomas Catherine Wilde Charles H. Wilson Russell Windham

President & CEO Shellye Arnold May 30, 2019

Andrew Weber, P.E, Study Manager USACE Galveston District P.O. Box 1229 Galveston, TX 77553-1229 ATTN: BBTRS

Email: BBTRS@usace.army.mil

Dear Mr. Weber,

Thank you for providing the opportunity to comment on the Buffalo Bayou and Tributaries Resiliency Study (BBTRS). As Conservation Director of Memorial Park Conservancy (MPC), and a fluvial geomorphologist formerly with the Harris County Flood Control District (HCFCD), I have a strong interest in preserving the natural Buffalo Bayou channel, while achieving site stability, water quality improvements, and public access.

MPC is a non-profit organization that manages 1,100 acres of Memorial Park that is bounded on its southern edge by a natural 3.8-mile segment of Buffalo Bayou. Over many decades adjacent landowners have installed structures to harden the edge of Buffalo Bayou, resulting in deleterious impacts to the natural streambanks. Addicks and Barker reservoir release schedules have also greatly impacted the slope stability by inducing sustained high flows and rapid drawdown. In addition, the last three major storms - Tax Day, Memorial Day, and Harvey - have exacerbated this streambank stress, resulting in extreme land loss. Memorial Park has experienced 20-50 feet of horizontal erosion on multiple entrenched streambanks ranging from 10-20 feet vertical relief. This amount of erosion and sedimentation within Buffalo Bayou has direct impacts to water quality, conveyance capacity, and dredging requirements for the Port of Houston.

7575 North Picnic Lane Houston, TX 77007 713.863.8403

MPC advocates addressing the flood damage reduction issues within the Buffalo Bayou watershed through 1) conveyance improvements using natural stable design principles and 2) appropriate siting and design of detention facilities, as outlined below.



Chairman Steve Jenkins Vice Chairman Casey Doherty Secretary Adam Newar Treasurer Margaret Pierce

Directors

David Berry Myron G. Blalock III John Briscoe Chuck Carlberg Claire Caudill John Garibaldi Kate Gibson Randall Grace Michael Graslev Richard Hightower Kenneth Huewitt Dennis Johnston Sabrina Kirwin John Paukune Carrie Pepi John Porter Dena Prasher Philip Schneidau Ashley Small Anita Smith Terri Thomas Catherine Wilde Charles H. Wilson Russell Windham

President & CEO Shellye Arnold

Conveyance with Geomorphic Stability

Harris County Flood Control District (HCFCD) has invested much effort in developing a Natural Stable Channel Design Guidance Manual that outlines principles of fluvial geomorphology within a local flood conveyance framework. The USACE staff should work with HCFCD staff to incorporate those guidelines into the BBTRS.

Channel instability and sediment transport issues are remedied through stream restoration that appropriately resets the bayou's:

- channel cross section building bankfull benches; establishing connectivity to geomorphic floodplain
- longitudinal profile establishing pool and riffle complex for effective transport of sediment and flow as well as habitat enhancement
- meander pattern alleviating overtighten meander bends and establishing oxbow habitat

USACE should study the permitted Memorial Park Demonstration Project as an example of reach-scale stream restoration on Buffalo Bayou (SWG-2012-01007).

MPC also recommends that the USACE conduct a comprehensive geomorphic assessment and Watershed Assessment of River Stability and Sediment Supply (WARSSS) of Buffalo Bayou that follows up on the work of Harris County Flood Control District's Charting Buffalo study. The Technical Appendix from this study provides details regarding Buffalo Bayou channel stability, erosion rates, Bank Erosion Hazard Index (BEHI), sediment transport, habitat, as well as recommendations for conveyance improvements.

In looking at conveyance options that were presented at the BBTRS public meeting on May 8th, I noted that some type of bypass channel within the Memorial Park reach is being considered. USACE staff should note that Memorial Park Conservancy, along with project partners is implementing the Master Plan that was approved by Houston City Council in 2015. A large-scale project to construct bypass channels or tunnels within Memorial Park would cause damage to the park and its ecosystem.

7575 North Picnic Lane Houston, TX 77007 713.863.8403



Chairman Steve Jenkins Vice Chairman Casey Doherty Secretary Adam Newar Treasurer Margaret Pierce

Directors David Berry Myron G. Blalock III John Briscoe Chuck Carlberg Claire Caudill John Garibaldi Kate Gibson Randall Grace Michael Graslev Richard Hightower Kenneth Huewitt Dennis Johnston Sabrina Kirwin John Paukune Carrie Pepi John Porter Dena Prasher Philip Schneidau Ashley Small Anita Smith Terri Thomas Catherine Wilde Charles H. Wilson

Russell Windham

President & CEO
Shellye Arnold

In a 2016 Initial Biological Assessment, MPC consultants discovered a breeding population of a State-listed reptile, the alligator snapping turtle (*Macrochelys temminckii*). Because of this finding, distributional research of this species within Memorial Park and all of Buffalo Bayou has continued to augment information on the conservation status of the reptile.

Appropriate Detention

The effectiveness of flood damage reduction from a detention facility should be fully understood prior to advancing and publishing alternative information. Detention within lower watershed areas will not effectively remove structures from the floodplain. To address flood damage reduction within Buffalo Bayou watershed, it is more appropriate to look at areas upstream of the reservoirs and remove structures from the floodplain. Buyouts of properties inside the reservoirs and increased reservoir capacity are effective detention alternatives.

In the materials presented at the BBTRS public meeting on May 8th, I noted that a detention basin alternative is being considered within Memorial Park. USACE staff should be aware of the Memorial Park master plan implementation projects currently funded at \$205 million to be completed in the next nine years. Memorial Park is Houston's largest urban park with a truly unique ecosystem, as well as state historic landmark status.

In reviewing the information provided in the public meeting, it seems that USACE staff are not familiar with Memorial Park, the 2015 Master Plan, nor its reverter-holder interests. I would be happy to meet with USACE staff to discuss the unique features of Memorial Park. In addition, I have a strong interest in USACE continuing to refine the geomorphic analyses that HCFCD started with the Charting Buffalo study and broadened with their Natural Stable Channel Design Guidance Manual. I would be happy to discuss or participate in fluvial geomorphology workshops or field tours. If you have any questions, or would like to discuss further, please contact me at: cwhite@memorialparkconservancy.org or 832-799-0955. Thank you.

Sincerely,

Carolyn White
Conservation Director

7575 North Picnic Lane Houston, TX 77007 713.863.8403 From: Anne Profilet

To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study Comments

Date: Thursday, May 30, 2019 2:09:22 PM

Dear USACE Project Manager:

As a Braesmont resident near Brays Bayou who has experienced three major flood events (Tax Day, Memorial Day, Hurricane Harvey) and subsequent street flooding in relatively small storms (less than 3 inches), I adamantly oppose the proposed construction of a new diversion channel from the Barker Reservoir to Brays Bayou. We do not want to add any more water to the Brays Bayou Watershed under any circumstances.

Thank you for the opportunity to comment.

Anne Profilet

5322 Edith Street

Houston TX 77096

From: Anne Olson

To: "bbtrs@usace.army.mil"

Subject: [Non-DoD Source] FW: Buffalo Bayou and Tributaries Resilience study

Date: Thursday, May 30, 2019 2:19:22 PM

From: Anne Olson

Sent: Thursday, May 30, 2019 2:16 PM

To: bbtrs@usace.armyu.mil

Subject: Buffalo Bayou and Tributaries Resilience study

TO USACE Representatives:

On behalf of Buffalo Bayou Partnership (BBP), thank you for the opportunity to provide comments on the various materials that were presented at your agency's recent public meetings.

In the presented materials it was stated that increased conveyance is a primary alternative with channel capacity being one strategy. Please know that if increased channel capacity of any type is considered, the impact of increased water flow and possibly speed on the bayou's natural banks must be considered. Many areas along Buffalo Bayou are already suffering severe erosion, and this problem will only grow worse if USACE increases the speed and volume of the water. Both private and public land will be greatly affected. Of particular concern is Buffalo Bayou Park and areas downstream. Buffalo Bayou Park is a recently completed \$58 million project led by Buffalo Bayou Partnership. Because of Hurricane Harvey and other severe storms, our organization has spent millions of dollars removing silt and repairing bank failures in the park. The banks continue to be eroding and as a result, we are losing large swaths of the park's open space.

Another item cited in the materials presented at the public meetings is the modified operation of the dams. Currently, the operation of the dams results in extensive periods of elevated water after heavy rains, causing the submergence of low-lying plants along the channel. This cuts the plants off from sunlight and destroys them. This results in the toe of the natural banks being devoid of plants and deep roots which help stabilize the banks. The resulting unstable slopes, increased erosion and bank failures clogs the channel with silt and debris, and this greatly affects water conveyance.

Finally, increased storage capacity of the existing reservoirs and development of new reservoirs and detention basins can offer significant recreational and ecosystem benefits. Please keep the many multiple benefits that can be achieved with thoughtful planning and design.

Once again, many thanks for the opportunity to provide these comments.

Sincerely,

Anne Olson President

Anne Olson

President, Buffalo Bayou Partnership 713.752.0314 ext. 102 / 713.223.3500 fax aolson@buffalobayou.org buffalobayou.org / Facebook / Twitter

Please mail to: 1019 Commerce Street, Suite 200, Houston, TX 77002

Buffalo Bayou Partnership is the non-profit organization revitalizing and transforming Buffalo Bayou, Houston's most significant natural resource.

From: <u>Bill Wilson</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study

Date: Thursday, May 30, 2019 3:36:40 PM

Focusing on collecting and conveying more storm water faster—and destroying our natural landscape and drainage system in order to do it—only leads to more flooding. Dredging, deepening, and widening the bayou and other streams only leads to bank collapse, constant maintenance and repair, and more flooding. Preserving old stands of trees, natural swales, wetlands, oxbows, vegetated riparian areas, and meanders; building small weirs, sediment structures, wet gardens, and setback levees; lengthening streams, and accepting large woody debris in the channel are useful techniques. Using these practices to work with the natural motion of the river is more effective – and less expensive – in reducing flood damage.

Bill Wilson

5417 Floyd St

Houston, TX 77007

From: <u>Gary Reese</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resilience Study Comments

Date: Thursday, May 30, 2019 4:56:40 PM

Dear USACE Project Manager:

As a Braesmont resident near Brays Bayou who has experienced three major flood events (Tax Day, Memorial Day, Hurricane Harvey) and subsequent street flooding in relatively small storms (less than 3 inches). I adamantly oppose the construction of a new diversion channel from the Barker Reservoir to Brays Bayou. We do not want to add any more water to the Brays Bayou Watershed under any circumstances.

Thank you for hearing my comments.

Gary Reese 5334 Edith Street Houston TX 77096 From: <u>Brenda Trevino</u>

To: <u>CESWT-BBTRS</u>; <u>Maske</u>, <u>Craig</u> (Flood Control

Cc: Patino, Laura - MYR; Byrnes, Rich; Ruchhoeft, Richard; Casebeer, David; Spencer Chambers; Bridget Elmore

Subject: [Non-DoD Source] Comments from Port Houston on the 216 Buffalo Bayou and Tributaries Resiliency Study 5-30-

19

Date: Thursday, May 30, 2019 5:05:08 PM

Attachments: <u>image002.png</u>

image003.png image004.png image005.png image006.png

Port of Houston Authority Comments on the Buffalo Bayou and Tributaries 216 Study 5-30-19.docx

Andrew Webber/Craig Maske,

Attached is a one page document with comments from Port Houston regarding the Buffalo Bayou and Tributaries Study currently out for public comment. Port Houston would welcome discussion on any of the comments at your convenience.

We look forward to your reply and to working with you to incorporate management and mitigation of sediment specifically in the Houston Ship Channel Turning Basin and in the regional watersheds involved in this study either as the local sponsor of the Houston Ship

Channel or with the recently formed sedimentation workgroup.

Brenda C. Trevino, PE PMP

Director, Technical & Business Analytics



E: <u>btrevino@poha.com</u> • <u>PortHouston.com</u>

O: 713.670.2470 • F: 713.670.2448 • M: 713.530.4538

111 East Loop North • Houston, Texas 77029











CONFIDENTIAL COMMUNICATION: This message and any attached materials are for the use of the addressee above and may contain confidential information. Please do not disseminate, distribute, or copy this message unless you are the addressee. If you received this message in error, please immediately notify the sender by replying to this message or by telephone.

Port of Houston Authority Comments on the Buffalo Bayou and Tributaries 216 Study

Provided in the spirit of cooperation on May 30, 2019

- 1. <u>The Port of Houston Authority and the City of Houston should be on an advisory board for the project, to have the ability to provide input directly on the topic of sedimentation management.</u>
- 2. The study should <u>include evaluation of sedimentation of the waters being conveyed</u> (the transportation and deposition of sediment).
- 3. <u>The Study should include impacts to the Houston Ship Channel</u> (HSC)that impact Houston region economics as well as area growth and jobs, as navigation continues to be impacted. Authorized draft in the HSC has not been available for over 4 years and continues to degrade with time. Due to the USACE process required to dredge the channel, a prior storm event is not mitigated in time for the next event. This is a continual issue that the Port Authority is not authorized to manage.
 - a. While the expenditures we have for emergency dredging may seem a relatively small few million dollars item, the real issue is avoiding commercial impacts of a few million per day of transportation cost impacts.
- 4. The Study should <u>regulate sedimentation rates due to development.</u> Previous attempts by Harris County and the City of Houston (collectively MS4s) to regulate sedimentation in Harris County have been opposed by specific local organizations that represent contractors and engineers due to the difficulty of controlling sediment loads on small parcels of land during development.
- 5. <u>The study affords the ability to review policies on sediment</u> at a more macro scale and to develop solutions that not only consider conveyance, but also the ability to reduce sediment loads on a macro scale created by micro elements; including, but not limited to construction activities, slope failures, the lack of vegetation, surface runoff, and other sediment sources.
- 6. <u>Sediment Capture and Control (SCC) should be a design criterion/ consideration</u> for any flood control or navigation channel project not every project needs to incorporate a SCC feature, as in some cases the benefit cost analysis (BCA) may not justify it, but every project should consider it consistently and should act on the result as recommended.
 - a. Structural solutions like sumps, diversions, etc.
 - b. Vegetative solutions
 - c. Restorative measures for beneficial use sites utilizing the material removed
 - d. Other features to be investigated and placed in the tool box
- 7. <u>Benefits should consider downstream savings</u> if SCC eliminates unit for unit volumes of dredging and increases DMPA longevity due to available capacity, these can be recognized as USACE benefits.

8. <u>The plan for sediment control in the Study scope only includes areas west (upstream) of the reservoirs</u>, in order to preserve storm water storage capacity downstream. Sediment control and transportation should be viewed systematically throughout every watershed in the Study, and especially the receiving end of the Study, the Houston Ship Channel.

Questions for Resolution in the Study

First, how is the Corps going to prevent damage to the Houston Ship Channel (water and sediment)? (This may require regional/local projects, policy changes, partnering, the use of comprehensive views to our waterways and the movement of soil.)

Next, shouldn't the Study define a net-zero impact to water surface elevation criteria for new flood control projects that also includes the net-zero increase in soil deposition into our waterways?

The SCC Work Group

This group has formed to provide synergy around the topic of sediment management in our bayous and tributaries. This group includes participants from the Port of Houston Authority, The City of Houston, HCFCD and USACE. We are working to identify ways large and small to address this issue to make a difference in our communities and our region.

From: Andrew Richardson
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou Flooding Study input

Date: Thursday, May 30, 2019 6:29:13 PM

I was affected by the flooding when the dam was released at Addicks and Barker reservoir.

My proposal is to lay a pipeline at the base of the existing bayous (Buffalo specifically). It would be below the waterline so would be invisible to the general public, and would not need an expensive land purchasing or excavation

In times of need, this pipeline would be used to pump excess water from the reservoirs out to the ship channel. With pumps and a bit of local oil and gas know how, the pipeline would be able to shift water out to the ship channel much more rapidly than relying on the regular flow of the bayou.

It would look good, it would be inexpensive (relatively speaking), it would use Houston expertise, and it might even be a patentable design for use in other urban areas

thanks Andrew Richardson From: Max Altorfer
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo Bayou and Tributaries Resiliency Study - My Comments and suggested Proposal

Date: Thursday, May 30, 2019 6:47:57 PM

Attachments: Buffalo Bayou Study - My Comments and Proposal.pdf

Please find attached my Comments and Proposal to the area of Fry Rd. and Westheimer Pkwy. in Katy.

I appreciate any improvement to the Barker Reservoir Flood Area.

Sincerely, Max Altorfer 21807 Cinco Blvd. Katy, TX 77450

e-mail: maxaltorfer@gmail.com



Public Information Meeting

US Army Corps of Engineers.

Comment Form (Formulario do Comentarios Escritos)

Buffalo Bayou and Tributaries Resiliency Study

Comment Period: April 29, 2019 through May 31, 2019

We need your thoughts and comments on the effort to develop the Buffalo Bayou and Tributaries Resiliency Study. Your participation is a key element in producing a meaningful and useful feasibility report. The information presented at the public information meetings can be viewed at the website listed below. Please write your questions, comments, or suggestions in the space provided below. Feel free to use additional pages if needed. Forms may be submitted at the public information meeting, mailing to the address on the back of this form, or emailed to BBTRS@usace.army.mil. Comments should be postmarked by May 31, 2019. Thank you for your participation!

Borker Reservoir - Katy Area
- Proposed Protection of the Residence Area east
of Fig Rd (plustrea west of Fig Rd) and south
and north of Westhermer Pkay:
- Proposal to install a dam (Levees) to limit
the Barker Reservoir Hooding Area.
The westheriver Pleng. has to be elevated in
order to cross over the dawn.
fee attached Google Maps will Mark-ups.
1730/2019 H. Owly + 2 attached Maps
Name Max ALTORFER Affiliation Affiliación
Address Dirección de Envío 21807 CINCO RUA
City Katz State TX Zip Code 77450 Ciudad Estado
E-mail Correo Electrónico MaxaeHorfer (g mail com

Google Maps S Fry Rd & Westheimer Pkwy



5/30/2019 Mallef

Google Maps Katy Montessori School Fashion Nails © Life Storage EZ Floors CR Nails Design Westheimer Pkwy Barker Reservoir Foundations Academy Cinco Ranch Shell C k Maint Barn Hua Xia Chinese School - KATY Campus Los Balito's Taco Shop - Katy TX Cinco Ranch Alzheimer's Special Care Center Wellness 5K The Retreat at Cinco Ranch Map data @2019 200 ft %

South Fry Road & Westheimer Parkway Texas

2911 Norwood Hills Drive Katy, TX

5/30/2019 M. Aufor

From: <u>Leola Ross</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] re: the Buffalo Bayou and Tributary Resiliency Study

Date: Thursday, May 30, 2019 7:55:25 PM

Dear Sir/Madam:

Thank you for the opportunity to provide community input for the Buffalo Bayou and Tributaries Resiliency Study meeting held on April 30. I attended this meeting, and my husband and I have attended several meetings over the past 18 months in order to be educated and informed on the problems, issues, and possible solutions for mitigating future devastating floods in our area.

I wholeheartedly endorse the recommendations of the Barker Flood Prevention advocacy group, which are to:

- 1. Limit the Barker Reservoir flood pool to the current government owned land.
- 2. Increase conveyance out of the Barker and Addicks Reservoirs. Solutions we support include flood tunnel(s), diversion channels, channel improvements and/or bypass.
- 3. Improve and restore channel conveyance and capacity upstream and downstream of Barker Reservoir and within the reservoir, including dredging, desilting and de-snagging.
- 4. Add capacity within Barker and Addicks Reservoirs through select excavation in the reservoirs. (Ex. 737-acre project that has been presented to the Corps located due east of Canyon Gate in the Cinco Ranch Area.)
- 5. Add intermediate detention/retention capacity upstream and downstream of Barker and Addicks Reservoirs.
- 6. Build infrastructure through a combination of viable solutions to manage Cypress Creek overflow to prevent Cypress Creek runoff from adversely impacting the Barker and Addicks watersheds.
- 7. Do not increase the Barker Reservoir flood pool by extending spillways.
- 8. Do not destroy existing neighborhoods, schools and businesses via large scale buyouts.

Additionally, while I understand the necessity for conducting a thorough study, I cannot help but ask the following: Why don't you <u>immediately</u> initiate the following, OBVIOUSLY-NEEDED action: (SEE ITEM #4 above) **restore the original capacity and conveyance** within the Barker and Addicks Reservoirs.

These reservoirs are full of silt. Their effectiveness is compromised. This is obvious. No one needs a study to determine this fact. Excavating and de-silting should be done regardless of the outcome of the study. Please request funding immediately to do this work.

Yes, I have flood insurance, and have had flood insurance ever since moving to Katy in 2008, although we were told it wasn't necessary.

Now, I also have an Aqua-Dam system to protect my home. My neighbors do not, and I dread seeing them have to renovate their homes again. It will be heart-breaking.

I, fortunately/unfortunately, have acquired enough knowledge and information since being flooded during Harvey, that I have <u>no</u> confidence that any governmental entity will help me.

Nevertheless, I do appreciate the opportunity to provide input for your study. I would rather see immediate action.

Sincerely, Leola Ross 22402 Piper Terrace Ln Katy, TX 77450 (Fort Bend county, Precinct 3) tel. 281-579-7998

From: Kelli Nottingham

To: CESWT-BBTRS

Subject: [Non-DoD Source] Cypress Creek flooding concern area

Date: Thursday, May 30, 2019 8:02:57 PM

Hello. I would like to submit a concern about Cypress Creek flooding for your Buffalo Bayou and Tributaries Resiliency Study.

My neighborhood is Enchanted Oaks Subdivision, located on the west side of I-45 just north of Cypress Creek (in Spring, TX), and was flooded terribly during Hurricane Harvey, due primarily to direct flooding from Cypress Creek as it overflowed its banks.

Since the hurricane, a large forest between my neighborhood and Cypress Creek has been completely cleared, and huge quantities of dirt have been trucked in to build up the ground levels on that property. The cleared land is now around 4-6 feet higher than it was before the hurricane, dwarfing the level of the street.

Many of us in the neighborhood are concerned, since we already had significant flooding during Harvey due to floodwaters flowing from the creek and along the streets into the neighborhood. Now there is an even higher ground elevation and no forest to absorb that water, leading many of us to suspect that any future flooding will be even worse due to runoff. This is especially true if (when) a business buys the property and builds or paves over the ground.

Thank you for your attention. Please feel free to reach out to me if you need any clarification.

Kelli Nottingham kelli nottingham@hotmail.com From: <u>Mark Gredell</u>
To: <u>CESWT-BBTRS</u>

Subject: [Non-DoD Source] Buffalo Bayou and Tributary Resiliency Study

Date: Thursday, May 30, 2019 8:12:34 PM

June 30, 2019

U.S. Army Corps of Engineers Galveston District

Attn: BBTRS P.O. Box 1229

Galveston, TX 77553-1229

Dear Sir/Madam:

I am writing in response to solicitation of comments from the public on the scope of the Buffalo Bayou and Tributary Resiliency Study. I am a resident of a home built in 2000 and located inside the Barker Reservoir (at 21807 Hollow Field Lane, Katy TX 77450). Our house was flooded during Harvey with 2 feet of water in the house for approximately 4 days.

As a geological engineer by profession, I certainly appreciate the complexity of the task in investigating potential solutions to preventing catastrophic flooding both upstream and downstream of the Barker and Addicks Reservoirs. In my understanding the downstream urban development along Buffalo Bayou has resulted in major changes in the operations of the dams from their original design, for example significant reduction of maximum release rates from the reservoirs, higher storage levels and impoundment time in the reservoirs, and changes in normal rain event and emergency operations. Many of these changes have increased the risk of higher reservoir levels and upstream flooding above the limits of government owned lands (GOL) within the reservoirs.

Specifically I support any projects which would help restore or at least come closer to the original design and operation of the reservoirs, including 1) modifying the dam operations and emergency release conditions (including higher releases *during* rain events and not just at specific reservoir levels), 2) increasing the drawdown rate of the Barker and Addicks Reservoirs through flood tunnels, diversion or bypass channels, or other channel improvements both upstream and downstream, 3) increasing the capacity of the reservoirs within the limits of the GOL (excavations), 4) new levees or new levee system within the Barker Reservoir at or near the GOL limits to protect upstream properties.

Aside from the possible technical solutions, I fully appreciate the fact that the original design intent of the reservoirs was to prevent downstream flooding. However no one at this point can reverse the decades of urban development downstream of the dams that has dictated the changes in the original design and operation of the dams, except perhaps with downstream property buyouts, which seem to be an impractical and contentious solution. For the same

reasons as those opposed to downstream buyouts, as an upstream resident I am opposed to property buyouts to remove the upstream neighborhoods above the limits of government owned lands (GOL). If property buyouts become a viable solution, my request is that a fair and equitable distribution of buyouts be applied to both upstream and downstream properties.

Thank you for the opportunity to comment on the BBTRS.

Sincerely, Mark Gredell 21807 Hollow Field Ln Katy, TX 77450 cell 713-204-1689

Resident of Cinco Ranch, Saddlebrook Crossing neighborhood in Barker Reservoir

From: Ray Lamborn
To: CESWT-BBTRS

Subject: [Non-DoD Source] Buffalo-Bayou Study Feedback

Date: Thursday, May 30, 2019 8:54:05 PM

As a 7 year resident living within 500 yards north of Cypress Creek, I have witnessed a "near-flood" during 2017 (tax-day) and a dramatic community-wide flood in 2018 (Hurricane Harvey) that impacted 180 of our 330 homes in Lakes of Cypress Forest. In both cases, Cypress Creek exceeded it's banks and began flowing directly into our (18 acre) retention pond that is parallel to the creek — both events resulted in dozens of truckloads of sand deposited in our retention pond. As this property is privately owned, the homeowners cumulatively spent over \$125,000 to clean-up the public areas, in addition to their own private home damage. The Seals Gully is along our eastern border and drains into Cypress Creek — this gully begins to back-up when Cypress Creek cannot drain fast enough and this resulted in flooding on our east side homes as well as the street closure of Cypress Creek.

I have attended 1 of your Army Corp presentations on this subject and my feedback is as follows:

- There must be no bottlenecks for rain water drainage starting at the watershed until it reaches the Gulf of Mexico
- A recognized bottleneck on Cypress Creek is at I-45 north, which is only 1 mile from our community. This MUST be addressed ASAP.
- If a levee is placed between the Cypress Creek watershed and the Addicks-Barker reservoirs, there will be ~40% MORE water trying to drain through Cypress Creek instead of going to Addicks-Barker reservoirs. This will create more flood damage, more often, and on a wider scale.
- The commercial and residential development throughout the watersheds need to consider the impact on the downstream communities there should be a "new development" tax that is large enough to cover the downstream changes required as a result of the new development. I would imagine this type of tax will also discourage the accelerated pace of development that reduces our wetlands acreage and natural groundwater drainage.
- The "canal" the Army Corp of Engineers envisioned/proposed in the 1950's to drain water from west Houston to the Gulf of Mexico <u>must be revisited</u> maybe underground tunnels could replace above ground canals? Our existing natural waterways cannot handle the rainwater we are receiving unless the rainwater is under 4-6 inches at a time.

We are counting on your wise recommendations to literally save lives, maintain our communities, and keep our local business economy viable.

I am serving my second year as a Director for the Lakes Of Cypress Forest Community Association. My contact name and address is:
Raymond K. Lamborn
2715 Randal Lake Lane
Spring, Tx 77388
raylamborn@gmail.com
713-304-5526