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November 2, 2020

USACE Galveston District

ATTN: BBTRS P.O. Box 1229

Galveston, Texas 77553-1229

Attention: Colonel Timothy R. Vail, Galveston District Commander

Via E-mail: BBTRS@usace.army.mil

Re: Buffalo Bayou Tributaries Resiliency Study Interim Report

Dear Colonel Vail:

The Katy Prairie Conservancy appreciates the opportunity to provide comments to the Buffalo Bayou Tributaries Resiliency Study Interim Report issued by the U.S. Army Corps of Engineers (USACE).

The USACE has invested much time and expense into the study and, as noted in the report, the USACE has released the Interim Report to solicit public input to "help inform decision-makers as they weigh the benefits and costs of alternatives or the individual measures that comprise an alternative" and to "help identify any additional impacts not yet considered and help aid in the identification of a Tentatively Selected Plan."

We appreciate the fact that the USACE has extended the public comment period to November 20, 2020 (per 2020_10_30_email from Lynda Yezzi to the Houston *Chronicle*'s Raj Mankad) and Colonel Vail's comments that the USACE would continue to accept comments even after the public comment period ends. However, KPC and our many supporters would have preferred that you extend the official public comment period to December 31, 2020.

In addition, Ms. Yezzi noted with regard to models and study data:

Finally, the methodologies we used to select the potential alternatives are readily available on the study website. We will continue to be transparent and share information on the study website at https://www.swg.usace.army.mil/Missions/Projects/BBTRS/Interim-Report/ as we move forward.

In reviewing the website, KPC does not see the type of information that we need to study the conclusions made in the Interim Report. Consequently, KPC formally requests that the USACE

release the modeling work it did and any studies that it undertook or had available to come up with the conclusions identified in the Interim Report.

The Katy Prairie Conservancy has been working since 1992 to protect between 30,000 to 50,000 acres of the ecologically rich Katy Prairie in the Greater Houston region. The Katy Prairie Conservancy has already protected more than 18,000 acres on the Katy Prairie for the benefit of its wildlife and for the enjoyment of all Texans. Our mission is to preserve these lands in perpetuity so they can provide excellent habitat for the many upland and wetland species that live on or migrate through the Katy Prairie, while also ensuring that the public has access for recreational and cultural purposes.

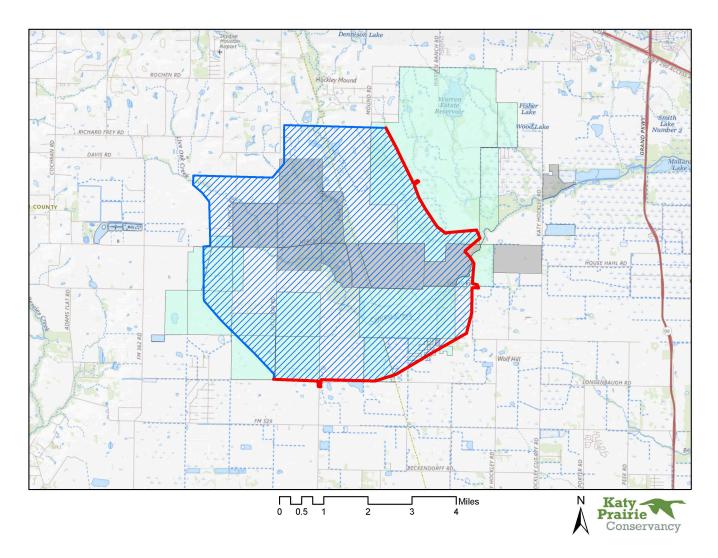
In reviewing the USACE's Buffalo Bayou & Tributaries Resiliency Study Interim Report, we find that the USACE did not thoroughly consider natural infrastructure or nature-based solutions that could significantly reduce flood risk.

The Katy Prairie Conservancy supports a multipronged, nature-based solution with innovative engineering techniques to slow and store water in Upper Addicks Watershed; absorb, slow and store water in Upper Cypress Creek Watershed; and store additional floodwaters in Addicks Reservoir. We also support studying conveyance options that do not damage natural areas and natural resources. Nature-based solutions are cost effective, use or mimic nature, adapt to extreme events, and offer recreation, wildlife habitat, and significant social and environmental contributions for the community. These smaller, distributed, and decentralized flood reduction projects could be implemented incrementally and quickly and could handle the Cypress Creek overflow as well as capture additional floodwaters that would otherwise flow into Addicks Reservoir. Please see attached brochure and PowerPoint outlining The Prairie Solution to Reduce Flooding.

While the Katy Prairie Conservancy has identified solutions that are different than those outlined in the Interim Report, we would like to take this opportunity to comment on various recommendations noted by the USACE. We primarily focus on Alternatives 2, 6, and 8 but have also included comments on the other alternatives in conjunction with Houston Stronger.

Alternative 2

One of the structural alternatives being studied by the USACE involves the construction of a 22,142 -acre Cypress Creek Reservoir enclosed within 30-foot berms which would significantly impact the Katy Prairie Preserve lands that have been protected by the Katy Prairie Conservancy with public and private support over the last 28 years. Below is an overlay of the proposed site depicted in the Interim Report on lands owned by the Katy Prairie Conservancy or protected by conservation easements held by the Katy Prairie Conservancy.



However, the map above does not show a reservoir area of 22,142 acres, it only shows a reservoir of slightly over 17,000 acres. Please provide a map of the exact boundaries of the entire reservoir and the amount of land owned or subject to conservation easements held by the Katy Prairie Conservancy which will be within the reservoir boundaries.

The report states that the overflow of the Cypress Creek watershed into the Addicks Reservoir would be reduced by the Cypress Creek Reservoir, but would need to work with other measures (such as channel improvements) to become effective system-wide. In addition, the report notes that the Cypress Creek Reservoir

- would take at least a decade or more to implement;
- does not meet the USACE major criterion of Benefit to Cost Ratio (in fact, it is the lowest of the structural alternatives offered [see Table 7]);
- would require that a local sponsor share a minimum of 35% of the costs; and

would also need a local sponsor to assume responsibility for operations and maintenance
of the reservoir and dam [see page 169, and Water Resources Development Act of 1996,
Section 202(a)(1)].

The Cypress Creek Dam and Reservoir structural alternative was included as Alternative 2 in the Interim Report. The reservoir was also included as part of Alternative 8, which includes both a Cypress Creek Dam and Reservoir and the Buffalo Bayou Channel Improvements proposed as Alternative 6. Neither Alternative 2 nor Alternative 6 are viable plans for a number of reasons, including:

- significant environmental impacts;
- complete failure to meet the USACE's benefit cost requirement;
- lack of a local sponsor to fund, operate, and manage the alternative; and
- significant community opposition.

While the "Third Reservoir" has provided an easy sound bite as a potential solution to the flooding in Addicks and Barker reservoirs and downstream flooding on Buffalo Bayou, the USACE's Interim Report shows that such a project would <u>not</u> eliminate flooding either upstream or downstream of the reservoirs. Even when the Buffalo Bayou Channel Improvements and the Cypress Creek Reservoir and Dam are combined, the USACE noted they do not solve the problem. As stated in the Executive Summary: "None of the alternatives reduce the peak of the 0.002 AEP flood below the government boundary at either reservoir. However, alternatives reduce flood duration above government land, which helps reduce recovery time but does not meaningfully reduce property damages and life safety risks."

The "Third Reservoir" concept has been offered as a seemingly simple solution, yet the data and analysis available to us show that the Cypress Creek Reservoir is not a viable project. We request that this alternative be removed from further consideration.

General Comments

Does Not Solve Problem. Most of the solutions proposed by the USACE, including this Cypress Creek Reservoir, will take a decade or more to implement. The Cypress Creek Reservoir would not solve the problem of the potential for continued flooding within the Barker Reservoir's non-government owned lands, nor of flooding down Buffalo Bayou. Thus, the risk of flooding within the reservoir pools on non-government-owned lands would remain a serious problem, such as in the event of another Harvey-level storm. As USACE notes, such a project would not eliminate flooding either upstream or downstream of the reservoirs. The USACE admits that its focused array of alternatives "... does not meaningfully reduce property damages or life safety risks." Please explain the data the USACE used to include these projects for further study.

When Alternatives 2 and 6 are combined, the results continue to leave significant residual property damages, and the majority of the benefits result from the conveyance improvements. The addition of the Cypress Creek Dam provides only a small incremental benefit over a

conveyance solution at triple the cost. Please explain the USACE's rationale for combining the two projects for increased cost and relatively low benefit.

Alternative 2's 0.1 Benefit Cost Ratio does not come close to meeting the requirements under federal law. None of the major infrastructure projects are close to meeting the benefit cost ratio that justifies this kind of public expense. The Cypress Creek Reservoir has the worst benefit cost ratios of the structural alternatives, at only 0.1. At a cost of \$2.1 to \$2.9 billion, the Cypress Creek Reservoir fails to meaningfully solve the issues of flooding in the Addicks Watershed. We urge the USACE to pursue solutions other than the Cypress Creek Reservoir that are more effective, less costly, quicker to implement, and provide community benefits.

Alternative 8's 0.2 BCR does not come close to meeting the requirements under federal law. Alternative 6 (Buffalo Bayou Channel Improvements) leaves \$65.879MM in residual damages, and Alternative 8 (Alternative 2 Cypress Creek Dam + Alternative 6 Buffalo Bayou Channel Improvements) reduces damages to \$63.299 MM. This is an incremental damage reduction of only \$2.58 MM. This alternative is a non-starter if one were to consider only the cost (\$946 MM to \$1.2 B) and impacts of Alternative 6 Buffalo Bayou Channel Improvements. It is even more evident that the sizeable additional investment (\$2.1-2.9 billion) in the Cypress Creek Dam and all of the resulting environmental harm do not justify this small incremental reduction.

We request that the USACE provide its BCR calculation of Alternative 8, including the incremental addition of the Cypress Creek Dam & Reservoir, as if one were to assume that the conveyance option had already been constructed. Only with this information can the public fully understand and evaluate the resources involved and limited benefit of Alternative 8.

Siting in Cypress Creek vs. Addicks Watershed. The USACE noted that the only place that the reservoir would work was in the Upper Cypress Creek Watershed and that was determined because their technical team undertook research. The Katy Prairie Conservancy has studied the watershed in consultation with hydrologists at the Rice University SSPEED Center and has determined that the Upper Addicks Watershed would be a more effective location for placing flood reduction storage projects, since these projects would provide a 1-to-1 reduction in floodwater volume. Every one-acre foot stored in the upper Addicks Watershed reduces one-acre foot entering and having to be stored in Addicks Reservoir. Further, it appears that there is undeveloped land available for acquisition to locate such storage basins.

Retention storage in the Upper Addicks Watershed requires fewer acres with greater benefits than providing such storage in the Cypress Creek Reservoir. The most direct and beneficial location for providing additional retention storage is within the Addicks and Barker Reservoirs themselves. The USACE did not adequately look at providing significant additional storage in Addicks and Barker Reservoirs but only selected a few areas for excavation; a more thorough study should be undertaken to maximize the excavation opportunities that can increase storage in existing reservoirs located within government-owned lands.

Siting nature-based projects in the Upper Addicks Watershed would not only avoid damaging the critical habitat protected by the Katy Prairie Conservancy, it would also result in the protection of new areas for wildlife habitat and recreation, as requested by the public during the scoping process.

Cypress Creek Dam Safety Risk. The construction of a dam on an active waterway poses inherent risks to those downstream – whether due to operational or structural failure, or whether a megastorm (or series of mega-storms) were to overwhelm the system. This risk is exacerbated due to the new development that would be encouraged by the construction of the dam; these additional structures would be constructed in lower areas that were previously within floodplains. The risk of a failure to the Cypress Creek Reservoir and Dam similar to what occurred during Hurricane Harvey would place new risk squarely on the residents of Cypress Creek downstream of the dam and also on the residents in the Upper Addicks Watershed (not only on the residents of the new homes that would be developed in lands that are in the current floodway and floodplains downstream of the dam, but also on those that are not currently in high-hazard areas). The USACE noted in the report that it does not put forward projects that transfer the risk from one area to another and yet, this is what seems to be recommended in this case. Please describe how the USACE will not transfer risk under this option.

Lack of Local Sponsor Makes Project Nonviable. The USACE has indicated that they would not operate the dam, and that a local governmental sponsor will be required to assume responsibility for operation and maintenance. No local governmental sponsor has come forward. This is not surprising, considering ongoing expense and responsibility, particularly given the real possibility of a dam failure in the Cypress Creek Watershed where none currently exists. In addition, the minimum 35% cost-share requirement would require such local government to fund at least \$735MM to \$1.015B of the project costs for much less in local benefit.

Environmental Losses. The Katy Prairie area which would be impacted by Alternative 2 is located in the middle of the Central Flyway and boasts more than 300 resident and migratory bird species; 110 species of mammals, amphibians, and reptiles; 600 species of wildflowers and grasses; and thousands of terrestrial insects and aquatic invertebrate species. The Katy Prairie has been designated a Global Important Bird Area by National Audubon – one of only 20 sites in Texas – due in large part to the incredible habitat available to upland species in decline on the prairie.

The Cypress Creek Reservoir would significantly impact the lands protected by the Katy Prairie Conservancy through ownership or conservation easements. While the USACE has not provided a map showing the entire location for the 22,142 acres, at least 11,000 acres – and likely more – of protected lands will become part of the Cypress Creek Reservoir & Dam should it be built. The construction of a dam would degrade the imperiled coastal prairie ecosystem both upstream and downstream from the embankment, damage the natural stream banks of Cypress Creek within the Katy Prairie Preserve, bisect the historic Warren Ranch, fragment the Katy Prairie Preserve to the detriment of wildlife and our community, without regard to the investment made by the public and private sectors over the last 28 years.

As described on Appendix A, the Katy Prairie Conservancy has worked with a number of public and private entities over 28 years to protect this critical, rapidly diminishing habitat. The value of this area has been consistently recognized by federal, state, and local agencies over the last three decades, and substantial resources have been dedicated to preserving and restoring this ecosystem. Federal and private funding has helped acquire and protect the properties that are part of the Katy Prairie Preserve. These lands represent the last remaining stronghold of the Katy Prairie that historically encompassed the Houston area. Over nearly three decades, the Katy Prairie Conservancy has focused on protecting and managing these properties and has also received financial support to restore and enhance prairie and wetland habitat. The donated funds have allowed the Katy Prairie Conservancy to restore and enhance approximately 5,000 acres of wetland habitat and to begin extensive work to restore tallgrass prairie. This habitat that is critical to local and migratory wildlife species and also creates natural detention features and improves the water infiltration abilities of the landscape.

Impact on Coastal Prairie Habitat. The USACE has failed to recognize the value of historic native habitats of this area of Texas. As noted by Texas Parks & Wildlife Department "it appears that wetlands and woody-dominated habitats are more favorably evaluated than those habitats that are the natural climax communities for that area." Coastal prairies once covered an estimated 6.5 million acres of the Texas landscape. By 1937, 93% of this landscape was gone and today only 1% remains intact. The USACE has not adequately considered the value or impact of Alternative 2 on this imperiled ecosystem, not only upstream and downstream from the embankment, but also within the embankment and excavation areas.

Degradation of Imperiled Coastal Prairie Ecosystem Upstream of Embankment. The report references degradation of lands upstream of the embankment due to extended inundation. A highly regarded ecological expert, Steve Apfelbaum of Applied Ecological Services (AES), noted:

Having the land inundated by floodwaters at seasonally unpredictable times and for periods of time longer than a few days at a time will disrupt the life cycles of the protected rare ecosystems and species. If the inundation frequency, depth-durations, and timing are operated in a manner similar to Addicks and Barker Reservoirs this would:

- 1. Eliminate or displace the current reliable water infiltration, evaporation, and storage functions that the land currently provides for stormwater storage and flood damage reduction provided by the protected prairies and wetlands. Will result in the diverse ecosystem being simplified over time, including declines and losses of rare plants and wildlife.
- 2. Result in a decline in plant and soil biology diversity and as the flooding use increases, the health of the land declines, soils become less absorbent of flood water, and become compacted, and this typically contributes to increased rate and volumes of generate floodwaters, and increased downstream flooding.

As stated by Texas Parks and Wildlife, the USACE has reported that the reservoir created by Alternative 2 would be inundated for 7 days following a 10-year rain event and up to 21 days following a 500-year rain event. These extended inundations, which would occur in more frequent rainfall events, will alter the hydrology and "not allow the persistence of the same high-quality prairie habitat that currently exists and is managed and conserved within the proposed reservoir footprint."

Degradation of Imperiled Coastal Prairie Ecosystem Downstream of Embankment. The report references the disruption of the hydrological connection for areas downstream of the embankment. The construction of an embankment would disrupt the flow of water to downstream wetlands, creeks, prairie potholes, and other riparian areas. By cutting off or altering the flow of water to these features, their long-term viability is threatened. These systems provide important habitat to many residential and migratory native species including mottled ducks, northern bobwhite, crawfish frog, western chicken turtle, and eastern spotted skunk among other species. Crawfish frogs are dependent on remnant prairie/wetland habitat. The western chicken turtle is another rare species found on the Warren Ranch and other Katy Prairie Conservancy properties and may be proposed as a candidate for listing under the U.S. Endangered Species Act. The western chicken turtle is also dependent on the shallow ephemeral wetlands found on the Katy Prairie. Removing natural inundation events from the flood plain will likely result in further residential development which would completely destroy the coastal prairie ecosystem in the area and put those homes in harm's way in the case of a major flooding event.

Embankment would impact Conservation Lands and bisect Warren Ranch and other Protected Properties. The report fails to adequately describe the negative impacts of the embankment, which would bisect the historic Warren Ranch, the largest remaining working cattle ranch in Harris County; it has been in continuous operation since the 1870s. Construction would involve excavation of "borrow areas" and construction of a 30' tall and 55,000' long berm – disturbing the natural vegetation, native prairie areas, wetlands, and endangered Prairie Dawn habitat.

The proposed embankment and associated excavation are planned to cross directly over this historic cattle ranch, negatively impacting cattle operations and some of the last few remaining areas of truly undisturbed native coastal prairie. The land on which the embankment would be constructed, as well as the land from which material would be excavated, currently provides extraordinary habitat, including native prairies, natural wetlands, and wooded creeks. This project would cause those historically and naturally significant features to be altered beyond recognition and ultimately destroyed.

In addition to the Warren Ranch, neighboring conservation properties that are part of the Katy Prairie Preserve would also be divided by the berm. This area includes forested riparian areas along Cypress Creek as well as grassland mitigation and wetland projects funded by US Fish and Wildlife Service and Ducks Unlimited.

Impact on Threatened and Endangered Species. The USACE has failed to consider the impact on threatened and endangered species that reside on the Katy Prairie. As admitted by USACE, no

field surveys have been conducted by the USACE project team regarding environmental impacts from Alternative 2. Texas Parks and Wildlife Department, which has conducted field visits to the Katy Prairie lands that would be damaged by the Cypress Creek Reservoir, has provided some information regarding its past field research. Texas Parks & Wildlife Department explains in its letter dated October 30, 2020 that the population of Texas prairie dawn, a federally listed endangered plant, "would be lost when habitat conditions become unsuitable following construction of Alternative 2." Other species of greatest conservation need as listed by Texas Parks and Wildlife would be affected, including the southern crawfish frog, the western chicken turtle, and the plains spotted skunk. Both the western chicken turtle and plains spotted skunk are under consideration by US Fish & Wildlife Service for Endangered Species Act protection.

Texas Parks and Wildlife "disagrees with the opinion that [Addicks and Barker Reservoir] habitats are higher quality than the native prairies that would be impacted under Alternative 2 or the riparian and in-stream habitats that would be impacted by Buffalo Bayou Channel Improvements (Alternative 6)." The project team must fully review the environmental damage that would occur from Alternative 2, including required mitigation and potential impacts to threatened and endangered species in Table 37 of Section 4.8 Evaluation of Preliminary FRM Measures.

Construction of this embankment for a reservoir would adversely impact the two amphibian species discussed above by irreparably destroying habitat for both the Crawfish Frog and the Western Chicken Turtle. Both species spend most of each year aestivating underground. Any digging, construction, or excavation would result in inevitable losses for both species. Recent observations at the Katy Prairie Conservancy revealed that excavation, even if at minimal depths, in prairie habitats can cause injury of individuals, direct mortality of individuals, or out-of-season movements of individuals, putting them at risk of predation or desiccation. In recent Texas A&M University studies on Katy Prairie Conservancy lands, researchers found that landscape parameters like wetland size and inter-wetland distances influence Western Chicken Turtle movements, and likely affect both dispersal and metapopulation dynamics – important components of the longterm viability of the species. In addition, any inundation or large-scale connected flooding of the area would result in permanent habitat loss for both species in several ways. Recent research that analyzed over 500 depth observations on Katy Prairie Conservancy lands revealed that Western Chicken Turtles rarely enter water deeper than 60 cm (~2 ft), even during the wettest periods. Deep inundation would result in either expulsion from aestivation habitats and subsequent drowning mortality or attempts to migrate from the area to eventual death (the vast majority of areas surrounding Katy Prairie Conservancy lands no longer have suitable habitat). It would also cause immediate mortality of all eggs in Western Chicken Turtle nests, and potentially drown all juveniles under one year old (in other populations, Chicken Turtles remained underground in the nest for about one year after hatching). Large-scale flooding of the area, even if only temporarily present, would also introduce game fish to any ephemeral wetlands on the site. Game fish are predators of Crawfish Frog adults, larvae, and eggs, and juvenile Western Chicken Turtles, and are direct competitors with both species for food. Both species are rarely observed in wetlands that have game fish. Alteration of these sites would also cause considerable financial waste for the state of Texas and its taxpayers, as the state has funded several ongoing research projects here in the interest of conserving these and other rare species. The site's pristine status is itself a rarity

and serves the state as a foundational cornerstone parcel to inform conservation measures for prairie ecosystems throughout the state and ensure the longevity of this value for the taxpayers.

The construction of an embankment would also serve to fragment an area of contiguous habitat that has been assembled by the Katy Prairie Conservancy over the last 28 years. This fragmentation will serve to restrict the movement of many terrestrial species dependent on the coastal prairie wetland system as protected by the Katy Prairie Conservancy.

While we are fortunate that state agencies have conducted field studies on the Katy Prairie, their work was not conducted with the goal of understanding all of the impacts on the ecosystem and species that would be impacted by the Cypress Creek Dam and Reservoir. The impacts on the species of the Katy Prairie have not been adequately studied nor described by the USACE project team, and the finding of "Low" on Table 37 regarding "Potential impacts to T&E Species" is not based on data. The USACE has failed to comply with its established process.

Cypress Creek. Also impacted would be Cypress Creek, which remains in a natural wooded state from its headwaters on the Katy Prairie. The construction of a dam and spillway across Cypress Creek would interrupt and severely damage this natural creek and riparian corridor. Intact, well-connected, and healthy functioning riparian corridors help keep water clean. Shade from riparian vegetation moderates water temperature which regulates the amount of instream dissolved oxygen available to support healthy aquatic life. Vegetation (plants) filters and processes pollutants, including nutrients, sediment and bacteria. These processes improve and protect the quality of the surface waters, which are the primary source of drinking water for our region. Forcing Cypress Creek to pass through a concrete spillway similar in size and to those at Addicks and Barker Reservoirs will damage this resource.

Land Fragmentation. The report fails to adequately describe the value of uninterrupted contiguous habitat. The excavation of "borrow areas" and the construction of a levee would result in an ecological scar across the Warren Ranch, cutting off thousands of acres from the remainder of the Katy Prairie Preserve. The Warren Ranch and adjacent Katy Prairie Preserve lands have a healthy population of Northern Bobwhite, Western Chicken Turtles, and Eastern Spotted Skunks, all of which are listed as Species of Greatest Conservation Need by Texas Parks & Wildlife Department. Adequate acreage and continuity of habitat is critical to sustaining healthy populations of these terrestrial species. Construction of a dam with associated borrow areas will further fragment a region that is already increasingly fragmented by development pressures in this region.

Impossibility of Mitigation. It will be impossible to mitigate the impacts to this system, as there are no other sites that can be acquired and protected of similar size and quality of the Katy Prairie Preserve, particularly within a one-hour drive from downtown Houston. Additionally, there is no way to relocate the wildlife populations that inhabit the area, and no way to replicate the unique habitat arrangement that the at-risk species rely on. If this reservoir is constructed, the Katy Prairie populations of Western Chicken Turtles and Eastern Spotted Skunks will likely never recover. The public must be informed of the extent and severity of the losses that would result from this action.

Per our estimates, at least 11,000 acres of protected lands will become part of the Cypress Creek Reservoir should it be built. Perhaps even more Katy Prairie land may be subsumed by the reservoir once we can determine the actual boundaries of the 22,142-acre reservoir. The required mitigation has not been adequately studied nor described by the USACE project team, and the USACE has failed to comply with its established process.

Alternative Solutions. The Katy Prairie Conservancy recommends using a series of smaller, distributed, and decentralized flood reduction projects that work to slow, absorb, and store water in the Upper Cypress Creek Watershed and the Upper Addicks Watershed through more natural measures – projects that could be implemented incrementally. These include floodwater retention through two small reservoirs (under 1,500 acres each) and by leveraging the retention capabilities of floodplains and floodways along Bear and South Mayde creeks in the Upper Addicks Watershed. In addition, expanding and restoring the Katy Prairie, identifying private lands for shallow detention, and creekside detention in the Upper Cypress Creek Watershed can also store floodwaters. Projects in these two watersheds would handle more than 130,000 acre-feet of floodwaters – capturing the Cypress Creek overflow from Hurricane Harvey-type flooding (approximately 50,000 to 60,000 acre-feet) spilling over into Addicks Reservoir, while containing an additional 80,000 to 90,000 acre-feet of floodwaters from rainfall and localized flooding. Flood mitigation efforts in the Upper Addicks Watershed provide a one-to-one benefit in floodwater reduction to Addicks Reservoir, while those in Upper Cypress Creek offer a 40% reduction in floodwaters flowing into Addicks Reservoir. Combined with natural storage in the Upper Cypress Creek Watershed and the available storage in Addicks and Barker Reservoirs on governmentowned land, the Katy Prairie Conservancy's proposal could provide adequate storage to handle a Harvey-type storm.

The USACE report has focused on large "Anchor Measures" and has screened ancillary measures. The USACE has stated that the screened projects were not of the scale required to handle floodwaters in a major storm event. The Katy Prairie Conservancy requests that the USACE provide the benefit cost ratio of the projects that have been screened. Further, the Katy Prairie Conservancy requests that the USACE consider the impact of aggregating multiple smaller projects and requests that the USACE study and provide the benefit cost ratio for nature-based projects such as those recommended by the Katy Prairie Conservancy.

Specific Comments/Questions

Table 3

Alt 2 – Does the cost of the reservoir include values based on when the project would actually be initiated, removal of then-existing structures, long-term operations and maintenance, and estimate of replacement activities? Estimates seem low, especially given that it may take more than a decade or two to initiate the project and appraisal district prices valued in today's dollars would no longer be accurate.

Page 66 - The USACE noted in the report that it does not put forward projects that transfer the risk from one area to another and yet, this is what would be created through the construction of the Cypress Creek Dam, and the creation of a risk of dam failure on Cypress Creek.

Page 86, Table 21 – The Cypress Creek Dam cost numbers (\$1.6B - \$2.2B) don't appear to be consistent with the cost numbers (\$2.1B - \$2.9B) in Table 3 in the Executive Summary.

Page 87 – USACE notes that "restoration of one acre of prairie would offset the impact of two acres of single-family land use or an acre of commercial development." Does this not support restoring the prairie instead of placing a reservoir over it? By preserving the work of the Katy Prairie Conservancy, restoring prairie coupled with employing smaller, distributed detention would become an additive flooding solution, rather than subtractive.

Page 88 – The Interim Report noted that prairie and wetland restoration could provide benefits to the watershed, but then stated: "For this study, however, land required for prairie and wetland restoration is outside the authorized study area." Why is land for prairie and wetland restoration within the upper Cypress Creek Watershed outside of the study area, when this part of the watershed is included in the study area as outlined in Figure 7, pg. 23? We request that this alternative be considered.

Page 88 Table 22 – Does not acknowledge that you have to store much more water in the Cypress Creek watershed to get the same flood reduction benefits than if that same amount of water were stored in the Upper Addicks watershed.

Page 107 – Can the USACE detail how the impacts to T + E species are higher in Addicks and Barker than on the Katy Prairie? It should also be noted that we have asked the USACE if it actually did any on-the-ground evaluation of conservation values on the Katy Prairie; we are not aware of any such field visits.

Page 107 Table 37 — Here the USACE is claiming that the Cypress Creek Reservoir has system-wide benefits. We need clarification on how that is, since it seems that it primarily, if not exclusively, benefits Addicks Reservoir and then only to a certain extent (not a 1-to-1 reduction).

Page 107 – The chart shows required mitigation for Cypress Creek Dam as "M". Please explain the rationale for setting this as a "Medium" level of required acres of mitigation when this alternative will require over 7,500 acres of mitigation. Also please explain the potential mitigation plan for such a large amount of acreage.

Page 107 – This chart shows a "High" impact to T & E for the excavation of Addicks and Barker. We would like to understand these impacts. Do they affect both reservoirs equally? Why does this alternative get a "High" impact rating for excavating about 3,000 acres within the reservoirs, yet the over 7,500 acres of mitigation required for the Cypress Creek Dam alternative only gets a "Medium" impact rating?

Page 109 – The description of the benefits of the Cypress Creek Reservoir states that "Initial screening level estimates for expected annual damages utilizing HEC-FIA are reduced by just under \$1 million in the study area." What does this mean? How does this compare to the stated \$37 million in annual damages avoided?

Page 109 – The Katy Prairie Conservancy requests more detail on why certain alternatives were screened but the Cypress Creek dam was not screened. Please provide the BCR information for all screened alternatives.

Page 110 – USACE notes importance of habitat and vegetation in the reservoirs but makes little mention of the importance of the same on the Katy Prairie. Also, there is a lot of Chinese Tallow within Addicks Reservoir. Much of what USACE claims is good about Addicks is truer of the prairie especially where a reservoir is proposed.

Page 110 – The removal of 10 feet of sediment, including all productive layers, is expected to drastically change the existing vegetation communities from dominance in trees and shrubs to herbs composed of species tolerant of low-nutrient disturbed soils, many of which are expected to be non-native or invasive. Already there are lots of tallow trees in the reservoirs. Couldn't the USACE do an assessment of where pockets of good habitat are and excavate around them? Creating an undulating bottom to the reservoirs is a reasonable concept, which in the long term may increase diversity by mimicking the historic undulations of the ground surface, rather than just selecting an area to excavate and then saying good habitat would be lost.

Page 112 Alternative 8 – The annual costs for the Cypress Creek Dam are estimated at \$231 million while the annual costs for the channel improvements are estimated at \$157 million. How is it that the annual costs for the total are only \$267 million, when \$157 million + \$231 million = \$388 million? Please explain whether ancillary measures are included in these costs.

Page 113 – The cost numbers throughout this document are not consistent. It should be noted that the costs of the Cypress Creek Reservoir are likely significantly higher, as the USACE indicated that the County Appraisal District values are being used to calculate land acquisition prices. Appraisal district values have significantly lagged behind the actual market prices in this area due to the fast pace of development, and actual costs would be higher than indicated – even if the project were constructed today. Give that the project may take years to be initiated, land prices would most likely be much higher in future years than estimated in the report.

Page 112 – Much lower annual operating costs for Katy Prairie Conservancy's alternatives would be expected given use of nature-based solutions wherever possible. Further, operations and maintenance would be less costly because natural infrastructure is inherently resilient and can withstand extreme weather events.

Page 114 – What is the full cost of the Alternative 8 – Combination Plan and how much of the benefit is from the ancillary measures?

Page 120 – Mitigation estimates are based on desktop analyses and not field visits.

Page 120, Table 43 – How can the acres of mitigation be about the same for Alternative 8 (7,593 acres) as it is for Alternative 2 when it is a combination of Alternatives 2 (7,523 acres) and 6 (3,093 acres)? Shouldn't Alternative 8 be the sum of those two, i.e., 10,616 acres?

Page 122 – Table 45 depicts the annual costs for Alt 2 and 6, as well as Alt 8. Why are these costs different than those presented on Page 112? Again, why is the annual cost of Alt 8 (\$260 million) not equal to the sum of Alt 2 (\$225 million) and 6 (\$153 million) (which add to \$378 million)? Please explain whether ancillary measures are included in these costs.

Page 125 – Can the USACE explain why they would be recommending any of the alternatives when they note "The takeaway is that the alternatives under evaluation do not have an appreciable impact on the inflows at Addicks?" The impact to Buffalo Bayou is also worth questioning: Figure 61 shows that the Cypress Creek Reservoir does not reduce the inflows in a 100-year or 500-year event on Buffalo Bayou at Piney Point.

Page 126 – Table 47 indicates that peak inflows to the Barker Reservoir will increase slightly with the existence of a Cypress Creek Reservoir (Alternative 2) as well as Alternative 6, while the peak inflows to Addicks Reservoir will slightly decrease. Please explain.

Pages 126 -129 and associated figures (62-66) Tables (47-49) - These indicate that none of the projects significantly change the peak inflow to Addicks and Barker during the 100- or 500-year event; what does that mean? These graphs are confusing. What are "outflows into Addicks"? They also seem to indicate that outflows are greater for "With projects" than "Without projects." Please explain why.

Page 128 – Table 48 - How does the Cypress Creek Dam result in an increase of outflows compared to the "No Action" alternative at Addicks? This option does not include any Buffalo Bayou Channel Improvements, but shows outflows increasing at both reservoirs for both the 100- and 500-year storms. Also, the outflows are identical between Alt 6 and Alts 2 & 6. This table does not make sense.

Page 149 – 4.10 Environmental Consequences

Beneficial impacts – The USACE notes that the proposed Cypress Creek reservoir is good because it will preserve open space that would otherwise be lost to development in the future. However, a significant portion of the reservoir would be on lands already protected by the Katy Prairie Conservancy (easement and fee lands); as such, they are not subject to future development. These lands are protected in perpetuity either under conservation easement agreements or by being owned by the Katy Prairie Conservancy, an accredited land trust.

The USACE also notes in reference to this proposed reservoir that "the open space is expected to provide recreational opportunities that either currently do not exist or would have been reduced

in future because of development." Katy Prairie Conservancy lands already provide recreational opportunities (trails, viewing platform, special events, education) and many more public activities are planned in the near and mid-term future, especially when we are no longer experiencing a pandemic.

The USACE states: "Ceasing grazing and agricultural practices...These habitat changes would create more suitable habitat for wetland-dependent and riparian-obligate species." Please note the Katy Prairie Conservancy provides extraordinary habitat in its nearly 5,000 acres of preserved wetlands, and is actively restoring grasslands. Second, sustainable grazing is an effective land management tool and, when correctly managed, may be used to control invasive species and improve soil health and plant biodiversity. To see the impacts that grazing has on proper land management, one need only look to Addicks and Barker Reservoirs which have become overrun by invasive brush and trees once the cattle were removed.

The USACE notes also that borrow areas will enhance wetland habitats, including this as a benefit. The Katy Prairie Conservancy already has many natural and restored wetland habitats on its properties, which are designed to benefit native species. The excavation of additional areas for the purpose of this proposed reservoir's berm construction is not providing a needed benefit and would involve designs and depths based on construction, not habitat, needs. Further, the berm itself would be constructed over floodplains and wetlands, creating much more harm than benefit. This should not be considered a benefit.

Adverse Impacts

Page 149 – USACE states: "The chance for inducing development within the floodplains is likely in undeveloped areas." Such development would contribute to additional runoff from the Addicks watershed, negating some of the benefits, according to the USACE's "future without project" (FWOP) condition. The Katy Prairie Conservancy asks if this has been modeled, and questions whether the model used by the USACE takes into account the infiltration and detention benefits of a natural vegetated surface.

It is not true that only 20,000 acres of prairie remain in Harris and Waller Counties. What is true is that nearly 20,000 acres of the prairie have been protected. Further, there are an additional 50,000 acres (or more) of lands within the upper Cypress Creek Watershed that currently are open space or agricultural lands that if protected, could be restored to the historic prairie/wetland complex.

The USACE notes that, with regard to the Katy Prairie Conservancy lands where the proposed reservoir in upper Cypress Creek would be located, "Construction and operation of the reservoir would prevent future development..." Yet, the Katy Prairie Conservancy already prevents development on its protected lands through the permanent protection of its conservation easement lands and its fee ownership.

USACE is correct in that "These impacts would also apply ... downstream of the embankment, where the embankment would sever hydrologic connections thereby affecting hydrologic regimes,

sediment and nutrient inputs and fragmenting habitats." (See earlier section on Steve Apfelbaum's analysis of what a reservoir would do to the Katy Prairie preserves).

USACE noted that "the proposed alignment of the reservoir would bisect the highest concentration of all known populations and result in direct and indirect mortality of Texas Prairie Dawn flower." Earlier USACE noted that highest concentration was in the reservoirs. The Katy Prairie Conservancy believes that the Katy Prairie has the highest concentration of this plant.

Page 150 – The USACE report states that while the Katy Prairie is not formally defined as a park or wildlife refuge, it has been identified by natural resource agencies (US Fish and Wildlife Service and Texas Parks and Wildlife) and conservation groups (Katy Prairie Conservancy, Bayou Land Conservancy ((formerly Legacy Land Trust)), Audubon, and Sierra Club) as an area of special cultural and ecological significance. Implementation of the Cypress Creek Reservoir would significantly alter and degrade more than 75 percent of the remaining range-wide Katy Prairie habitat and a significant portion of the actively managed and preserved remaining habitat. Approximately 90 percent (about 10,400 acres) of the project area is operating under Habitat Conservation Plans, including mitigation banks, where funding has been provided to maintain and enhance Katy Prairie, stream, riparian, and wetland habitats in perpetuity.

By the admission of the USACE study team in this Interim Report, the development of the Cypress Creek reservoir would significantly damage the conservation values of the Katy Prairie and would not solve the problem of eliminating flooding upstream and/or downstream. Why go to the extraordinary expense to build the Cypress Creek Reservoir if it will not solve the problem and will cause significant cultural and ecological damage?

Page 150 – The Interim Report notes that the creation of the Cypress Creek Reservoir would lead to degradation of this resource and the invasion of weeds and undesirable species. The removal of cattle would actually further degrade the land, as properly managed cattle not only provide an important local food source, but also keep invasive species like Chinese Tallow at bay. (One need to only look at the condition of Addicks and Barker reservoirs to recognize that the removal of grazing cattle has allowed invasive species to proliferate, diminishing the storage capacity of those projects.)

Page 150 – The report references 6,000 acres of Katy Prairie conservation lands that are immediately downstream of the embankment, and the disruption to the hydrologic connections. The report states "These indirect impacts would also cause the lands to underperform in expected habitat quality for conservation and could result in conflicts with the conservation easements and mitigation banks." This statement does not adequately describe the negative impacts of the embankment.

The embankment is proposed to bisect the Warren Ranch, which is the largest remaining working cattle ranch in Harris County, one that has been in continuous operation since the 1870s and is operated by the Katy Prairie Conservancy in partnership with descendants of the original Warren family. The ranch is operated as a working cattle ranch that includes a sustainable grazing plan to

manage the land for wildlife habitat. The proposed embankment and associated excavation would bisect this historic cattle ranch, impacting cattle operations, plus some of the last few remaining areas of undisturbed native coastal prairie. Also impacted would be Cypress Creek, which remains in a natural wooded state from its headwaters on the Katy Prairie. The land on which the embankment would be constructed and the land from which material would be excavated provides extraordinary habitat, including prairies, wetlands, and wooded creeks — resulting in both destruction and severe alteration.

The report fails to adequately describe the value of uninterrupted contiguous habitat. Unfragmented and contiguous lands are critical to the health of many wildlife populations and the functionality of working lands. Land fragmentation impacts not only farms and ranches, but also the many plants and animals that live on the prairie. Smaller degraded fragments do not support the diverse wildlife communities that flourish on larger undeveloped and undivided areas.

Page 154 – USACE states: "The aggregate impacts of implementing the complete alternative (ALT 8) are considered Adverse and Significant with unavoidable long-term impacts." Why is this alternative being advanced?

Pages 155 to 158 – Mandatory buyouts would not be required if a solution to reducing flood risk could be found. One such solution: deploying Katy Prairie Conservancy's nature-based plan along with improving the carrying capacity downstream of the Addicks and Barker Reservoirs. Will the USACE consider other alternatives than the ones currently considered as part of the initial scoping?

Page 165 - Table 51 depicts the residual damages after implementation of the different alternatives. Alt 6 leaves \$65.879MM in residual damages, and Alt 7 (adding the Alt 2 Cypress Creek Dam) reduces damages to \$63.299 MM. This is an incremental damage reduction of only \$2.58 MM. The sizeable (\$2.1-2.9 billion) additional investment in the Cypress Creek Dam and all of the resulting environmental harms do not appear to justify this small incremental reduction. (See also Pages 166-167, Table 52).

Page 171 – The Interim Report states: "Resource agency concerns have predominantly been concerned with implementing any proposed measures within Katy Prairie habitat and along Buffalo Bayou. The Katy Prairie is the last remaining coastal prairie in Harris County and less than 1 percent remains throughout the state. The Cypress Creek Reservoir would impact nearly all of the known high-quality Katy Prairie habitat remaining. An environmental team began working on a conceptual ecological model to understand the function and productivity of the Katy Prairie better; however, no models were ever built and no data collected due to the removal of the Cypress Creek Reservoir measure from further consideration." Since the USACE noted that no models were built and no data collected because they had removed the Cypress Creek Reservoir measure from further consideration, why is it still one of the Focused Alternatives being discussed without those studies? Why did it appear that this alternative was dropped from consideration initially but then later recommended as a top priority alternative?

Page 172 – USACE notes: "Even with the temporal accounting in the impact and mitigation analyses, the loss of mature habitat is significant in this urban environment and may be unavoidable." If this is the case, why not take the same tact and destroy the "habitat" in the reservoirs so as to increase storage? Also, why not construct a tunnel so as to avoid damaging urban (and prairie) habitat?

Page 173 – USACE notes there was "Strong support for implementing Nature-Based Features (e.g. preserving the Katy Prairie through land acquisition, restoring native habitats and bayous, using green infrastructure..." and for the reduced cost of using nature-based features, but the USACE did not seem to take any of these comments to heart and use them to better define their study. Why? We urge USACE to study nature-based features.

The Katy Prairie Preserve is a healthy, connected ecosystem within a one-hour drive from downtown Houston. Unfortunately, the fact that these lands remain largely undeveloped makes them an attractive target for infrastructure projects, including a costly dam and reservoir that, while providing a good political sound bite, do not solve the problem of flooding threats in the Addicks and Buffalo Bayou watershed.

We request that the Cypress Creek Dam and Reservoir be removed from further consideration.

Sincerely,

Mary Anne Piacentini

President and Chief Executive Officer

Attachments

Katy Prairie Preserve Restrictions and Funding Sources The Prairie Solution to Flooding Brochure (sent via email) The Prairie Solution to Flooding PowerPoint (sent via email)

cc: Katy Prairie Conservancy Board of Directors

KATY PRAIRIE PRESERVE - RESTRICTIONS AND FUNDING SOURCES

The Katy Prairie Conservancy (KPC) has protected 18,291 acres on the Katy Prairie for the benefit of wildlife and people. These conservation lands provide wildlife habitat, recreational opportunities, improved water and air quality, local foodstuffs, and flood mitigation. KPC has benefited from federal, state, and local land protection programs that have well-defined restrictions. In addition, significant private funding was secured to either match governmental support or to acquire/protect land privately. Taking the value of land owned and the value of donated conservation easements, private and other sources donated \$4 for every \$1 in federal funds.

FEDERAL FUNDING

8,258 acres of KPC's Preserve System have been protected pursuant to projects that received funding U.S. Fish and Wildlife Service's North American Wetlands Conservation Act, Coastal Impact Assistance Program (CIAP), and/or the Endangered Species Act. These funding sources require that KPC record a conservation easement (CE) or place a notice of grant requirements (NOGR) to ensure the permanent protection of the conservation values identified in the grant. These programs support the protection of critical migratory waterfowl and shorebird habitat as well as endangered species where they exist. USDA's Natural Resources Conservation Service funded a conservation easement on 867 acres; USDA is a party to the perpetual easement.

CONSERVATION EASEMENTS

More than 6,420 acres are protected by conservation easements – either ones held by KPC on private lands or ones held by other land trusts or units of government on KPC lands. These easements protect the conservation values of the land in perpetuity.

MITIGATION

KPC is the joint owner of the Katy Prairie Umbrella Stream Mitigation Bank which is permitted under Section 404 of the Clean Water Act through the U. S. Army Corps of Engineers. The bank mitigates for impacts to streams and encompasses 443 acres on the Warren Ranch. These acres are also protected by an easement held by Texas Land Conservancy. Another 1,568 acres on the prairie are subject to wetlands and prairie mitigation requirements (with another 152 acres pending final approval).

HARRIS COUNTY FLOOD CONTROL DISTRICT EASEMENTS

The Harris County Flood Control District acquired eight easements on 5,556 acres of Katy Prairie Conservancy lands to protect the natural conveyance of flood, storm, and surface runoff waters. KPC cannot divert, restrict, interfere, or otherwise impede conveyance as it currently crosses the tracts; the District has no right to modify or otherwise improve the easement area. These agreements are in perpetuity.

Total areas protected in perpetuity = 17,623 acres.

Detail on Restrictions

U.S. Fish and Wildlife Service

Funding from the U.S. Fish and Wildlife Service has contributed to the protection of 8,258 acres on the Katy Prairie from multiple initiatives over the last 22 years:

North American Wetlands Conservation Act

Phase 1. The Katy Prairie Initiative Project: The Katy Prairie Initiative Project was recommended by the North American Wetlands Conservation Council and approved by the Migratory Bird Conservation Commission. The grant provided financial support to begin a watershed-based initiative to permanently conserve 1,828 acres of critically imperiled migratory waterfowl and shorebird habitat within the Katy Prairie and during Phase 1 to focus on protecting palustrine farmland habitat within the Cypress Creek Watershed.

Katy Prairie Initiative II The Next Phase, TX: This project resulted in the acquisition of an additional 2,207 acres of a combination of palustrine emergent agricultural wetlands, riparian corridor, and depressional prairie wetlands. KPC agreed to manage acquired properties with technical assistance from the Texas Parks and Wildlife Department and the U.S. Fish and Wildlife Service in a manner consistent with the needs of wintering waterfowl, shorebirds, wading birds, Neotropical migrants, raptors, and other species that are dependent on these habitats.

Coastal Prairie Wetlands Restoration/Acquisition II and Coastal Prairie Wetlands Restoration/Acquisition III resulted in the protection of an additional 1,305 acres of wetlands and associated uplands in fee title and conservation easement in order to protect and improve important wintering and migrations habitat for waterfowl, shorebirds, other wetland-dependent migratory and resident birds. This project advanced the important regional effort to protect and improve vital inland coastal prairie and agricultural wetlands on the Katy Prairie, an area that provides habitat which is critical to the nesting success and survival of many grassland dependent bird species, including the Mottled Duck.

Coastal Prairie Wetlands Preservation Project preserved 1,326 acres to protect and improve vital inland coastal prairie and agricultural wetlands on the Katy Prairie, an important migratory bird stopover area.

Coastal Prairie Habitat Initiative: The initiative resulted in the acquisition of 964 acres of land on the Katy Prairie, including 320 acres in fee as well as a conservation easement on an additional 644 acres on the Katy Prairie in order to benefit migratory waterfowl and grassland species that inhabit coastal and inland areas on Texas's Gulf Coast.

Coastal Impact Assistance Grants

Warren Lake Acquisition and Wetland Restoration. This project helped permanently protect 250 acres on the Warren Lake at Warren Ranch as part of the implementation of the Texas Coastal

and Estuarine Land Conservation Plan within the project area for the North American Waterfowl Management Plan, Gulf Coast Joint Venture: Texas Mid-Coast Initiative (GCJV-TMI). The project addressed the plan's priority land types and values - coastal prairies and rivers, streams, and riparian zones, and helped protect and restore: quality wintering habitat for four high priority waterfowl species (Northern Pintail, Mottled Duck, Mallard and Lesser Scaup); quality breeding habitat for one high priority waterfowl species (Mottled Duck); high quality breeding habitat for one priority waterfowl species (Wood Duck); migration and wintering habitat for five priority waterfowl species (Wood Duck, Redhead, Canvasback, Ring-necked Duck, and American Wigeon); and positively impact an additional 13 species of waterfowl – all as identified by the GCJV-TMI.

Katy Prairie Wetlands Project. The project involved the acquisition of 169 acres of depressional prairie wetlands, riparian corridor, and palustrine emergent agricultural wetlands within the Cypress Creek watershed on the Katy Prairie in Harris County

Endangered Species

Endangered Species Mitigation Funds. USFWS funding allowed for the perpetual conservation of 205 acres of the Warren Ranch where a significant population of Hymenoxys Texana (Prairie Dawn) has been found.

National Fish and Wildlife Foundation

Three grants have been awarded by the National Fish and Wildlife Foundation to perpetually protect an additional 985 acres of important wildlife areas on the Katy Prairie.

Harris County Flood Control District Easements

The Harris County Flood Control District has acquired eight easements over 5,556 acres of Katy Prairie Conservancy lands to protect the natural conveyance of flood, storm and surface runoff waters. KPC agreed not divert, restrict, interfere, or otherwise impede conveyance as it currently crosses the tracts and the District has no right to modify, divert, or otherwise improve flood conveyance on these tracts.

U.S. Army Corps of Engineers Mitigation Permits

Katy Prairie Stream Mitigation Umbrella Bank was constructed and permitted by the US Army Corps of Engineers to provide for habitat restoration, establishment and enhancement activities of stream corridors within the Warren Ranch in order to mitigate impacts of development on riparian corridors pursuant to the Clean Water Act. The stream bank project affects 443 acres within Warren Ranch.

Wetlands Mitigation. Multiple tracts have been transferred in fee to KPC or are subject to perpetual conservation easements held by KPC as required by the individual permits issued by the U.S. Army Corps of Engineers to mitigate the impacts of development on wetlands losses.

Each tract is subject to a different permit issued to the developer, and a combined total of 1,568 acres on the Katy Prairie are subject to such obligations.

Conservation Easements affecting KPC-Owned Lands

1,561 acres of land owned by KPC is subject to conservation easements held by Bayou Land Conservancy or Texas Land Conservancy, or the Texas Department of Transportation in order to ensure the permanent protection of these lands.

Conservation Easements held by KPC

Pursuant to the USDA Natural Resources Conservation Service's Farmland Protection Program, NRCS funding was used to permanently protect 867 acres of land from urban development and conserve it for agricultural production pursuant to an easement held by KPC. Further, private landowners have granted conservation easements on 3,582 acres on the Katy Prairie Preserve, primarily through donations, to ensure the permanent protection of the conservation values of such lands. An additional 410 acres are owned by entities who have granted conservation easements to KPC in connection with a mitigation project as required by the US Army Corps of Engineers. (An additional 152 acres are pending).