Addicks and Barker Reservoirs Master Plan

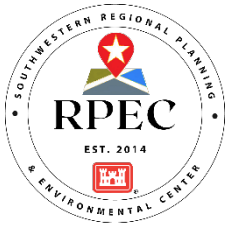
Harris and Fort Bend Counties, Texas

January 2026 **DRAFT REPORT**



US Army Corps of Engineers®
Galveston District

The Addicks and Barker Reservoirs Master Plan was produced by the U.S. Army Corps of Engineers Southwestern Division Regional Planning and Environmental Center (RPEC) for the Galveston District (SWG).





EXECUTIVE SUMMARY

Addicks and Barker Reservoirs Master Plan
U.S. Army Corps of Engineers
Prepared by the Galveston District and the Southwestern Division
Regional Planning and Environmental Center (RPEC)
January 2026

ES.1 PURPOSE

The revision of the Addicks and Barker Reservoirs Master Plan (hereafter Master Plan) is a framework built collaboratively to serve as a guide toward appropriate stewardship of U.S. Army Corps of Engineers (USACE) administered resources at Addicks and Barker Reservoirs over the next 25 years. The 2009 Master Plan has served its intended planning horizon. The Master Plan is primarily a land use and outdoor recreation strategic plan. The dam's primary purpose is flood risk management. Secondarily, outdoor recreation and fish and wildlife conservation are also important missions. Environmental stewardship of Federal lands is an inherent mission at all USACE projects.

The 2009 Master Plan classified a total of 26,100 acres of USACE fee land. Due to more advanced measurement technology these numbers have been revised[1] and the boundaries adjusted based on mapping completed in that same time period. For planning purposes, Addicks and Barker Reservoirs encompass 26,367 acres of total fee lands, based on Geographical Information System (GIS) mapping of the 2009 land use plan. Construction of the dams began in May 1946 and was formally completed and operational by 1948 to mitigate flooding in the Houston area. This Master Plan revision and supporting documentation provides an inventory, analysis, goals, objectives, and recommendations for USACE lands at Addicks and Barker Reservoirs, Texas.

[1]These figures are for planning purposes only and differ from the official real estate records.

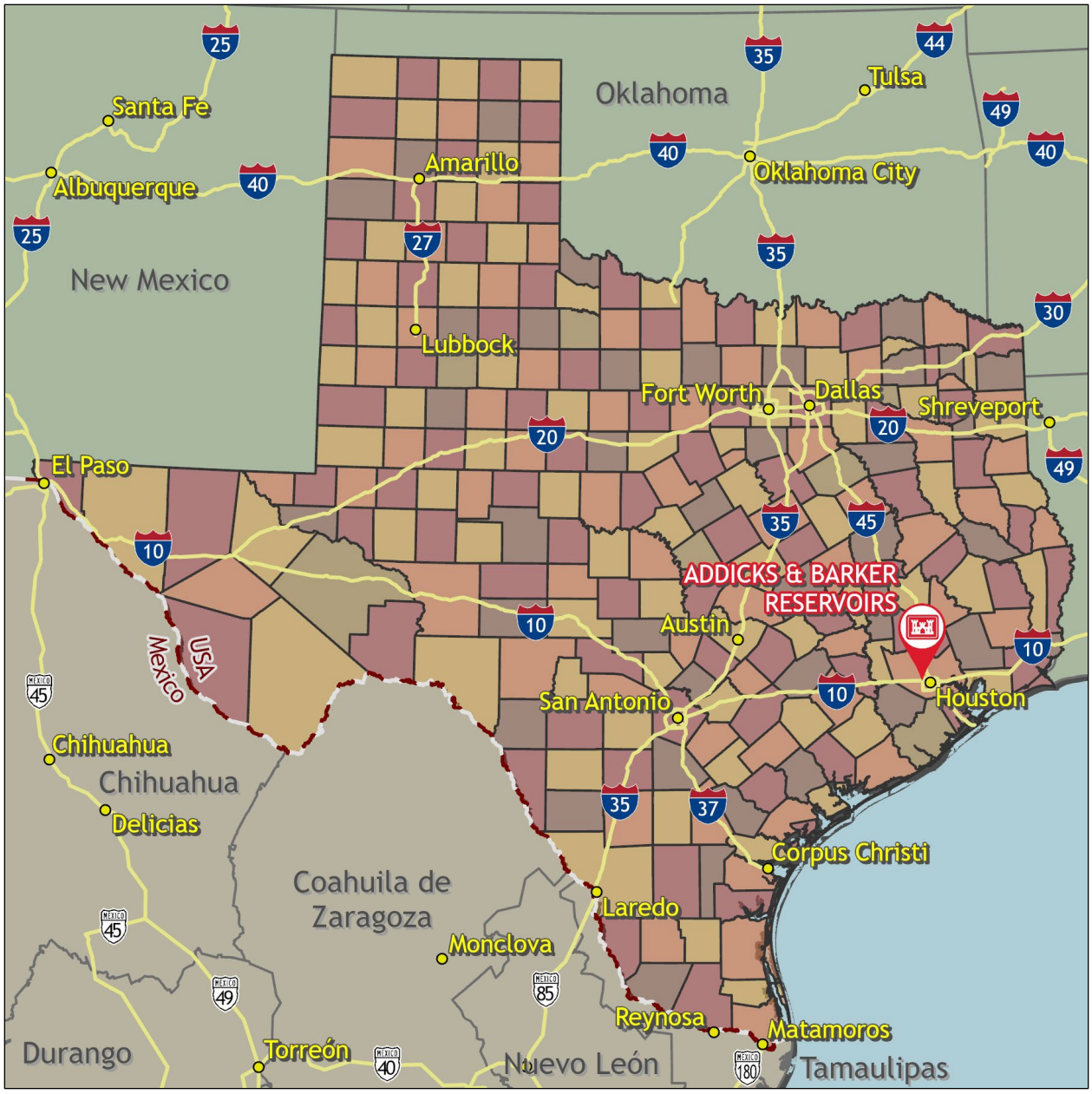


Figure ES.1 Vicinity Map of Addicks and Barker Reservoirs

ES.2 PUBLIC INPUT

Addicks and Barker Reservoirs are federally owned and managed public property, and it is USACE's goal to be a good neighbor, as well as steward for public interest as it concerns Addicks and Barker Reservoirs. As such, USACE is bound to the equal enforcement of policies and fees for this publicly held national asset and must balance the needs of the recreating public with the needs of Addicks and Barker Reservoirs operations and natural resources.

To ensure a balance between operational, environmental, and recreational outcomes, USACE obtained both public and agency input toward the Master Plan. An

Environmental Assessment (EA) was completed in conjunction with the Master Plan to evaluate the impacts of alternatives and can be found in Appendix B.

A public open house was originally scheduled for 10 July 2024 at the Trini Mendenhall Community Center in Houston, Texas. Due to the impacts of hurricane Beryl on the region the meeting was rescheduled for 19 August 2024 at the Trini Mendenhall Community Center. The public comment period opened on 10 July 2024 and remained open until 18 September 2024 to ensure all members of the public had adequate time to comment on the Master Plan Revision. At the public information meeting a presentation was given that included the following topics:

- What is a Master Plan?
- What a Master Plan is Not
- Why Revise a Master Plan?
- Overview of the National Environmental Policy Act (NEPA) process
- Master Planning Process
- Instructions for submitting comments

For Addicks and Barker Reservoirs, USACE received 25 comments. All public and agency comments received were noted and will be addressed as appropriate. These comments and the USACE response can be found in Appendix E.

A public open house will be held for Addicks and Barker Reservoirs Draft Master Plan revision. The purpose of this open house will be to provide attendees with information regarding the proposed Master Plan revision as well as to provide them with the opportunity to provide comments on the proposed Addicks and Barker Reservoirs Draft Master Plan. The open house will be the same topics as the initial public open house. The open house will begin a 30-day comment period where the public and stakeholders can provide comments on the Draft Master Plan. These comments will be reviewed and addressed as the USACE revises a final version of the Master Plan.

ES.3 RECOMMENDATIONS

The following land and water classification changes (detailed in Chapter 8, Tables 8.2 and 8.4) are a result of the inventory, analysis, synthesis of documents and data, including public and agency input. In general, most USACE land at Addicks and Barker Reservoirs was reclassified either by a change in nomenclature required by regulation or changes needed to identify actual and projected use. Tables ES.1 and ES.2 illustrate the prior and revised land and water classifications, which includes small increases in Project Operations. Multiple Resource Management Lands saw large increases at both reservoirs under subclassifications Vegetative Management and Future or Inactive Recreation at Addicks Reservoir and Vegetative Management at Barker Reservoir. Additionally, the update reduces land under the Environmentally Sensitive Area classification to better support the flood risk management mission.

Table ES.1 Addicks Reservoir – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	1,924	Project Operations (PO)	2,048	124
Recreation Areas	1,595	High Density Recreation (HDR)	1,217	(378)
Multiple Resources Management Lands (MRM)	5,610	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	9,174	3,564
Future and Inactive Recreation	101	Future or Inactive Recreation (MRML-FOIR)	443	342
Environmentally Sensitive Area (ESA)	4,317	Environmentally Sensitive Area (ESA)	665	(3,652)
LAND TOTAL	**13,547**	**LAND TOTAL**	**13,547**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

Table ES.2 Barker Reservoir – Proposed Changes from 2009 Land Classification to 2026 Land Classification[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	2,188	Project Operations (PO)	2,332	144
Recreation Areas	1,363	High Density Recreation (HDR)	1,431	68
Multiple Resources Management Lands (MRM)	5,655	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	8,390	2,735
Future and Inactive Recreation	336	Future or Inactive Recreation (MRML-FOIR)	0	(336)
Environmentally Sensitive Area (ESA)	2,910	Environmentally Sensitive Area (ESA)	299	(2,611)
LAND TOTAL	**12,452**	**LAND TOTAL**	**12,452**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

The acreages of the USACE land were measured using satellite imagery and Geographical Information System (GIS) technology. The GIS software allows for more finely tuned measurements and, thus, stated acres may vary from official land acquisition records and acreage figures published in the 2009 Master Plan. A more detailed summary of changes and rationale can be found in Chapter 8.

ES.4 PLAN ORGANIZATION

Chapter 1 of the Master Plan presents an overall introduction of Addicks and Barker Reservoirs. Chapter 2 consists of an inventory and analysis of project resources. Chapters 3 and 4 lay out management goals, resource objectives, and land allocation and classification. Chapter 5 is the resource plan that identifies how project lands will be managed through a resource use plan for each land use classification. This includes current and projected park facility needs, an analysis of existing and anticipated resource use, and anticipated influences on overall project operation and management. Chapter 6 details topics that are unique to Addicks and Barker Reservoirs. Chapter 7 identifies the coordination efforts and stakeholder input gathered for the development of the Master Plan, and Chapter 8 gives a summary of the changes in land classification from the previous Master Plan to the present one. Finally, the appendices include information and supporting documents for this Master Plan revision, including Land Classification and Park Plate Maps (Appendix A).

An EA analyzing alternative management scenarios for Addicks and Barker Reservoirs has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] § 4321 *et seq*.), as amended by the Fiscal Responsibility Act of 2023, and the Council on Environmental Quality (CEQ) implementing regulations published by the USACE (33 CFR 230) and associated implementation guidance including Engineering Regulation (ER) 200-2-2: Procedures for Implementing NEPA (1988). The EA is a separate document that informs this Master Plan and can be found in its entirety in Appendix B.

The EA evaluated two alternatives: 1) No Action Alternative, and 2) Proposed Action. The EA analyzed the potential impact the No Action and Proposed Action would have on the natural, cultural, and human environments. Because the Master Plan is conceptual, any action proposed in the Master Plan that would result in significant disturbance to natural and cultural resources or result in significant public interest would require additional NEPA documentation at the time the action takes place.

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CHAPTER 1 – INTRODUCTION

1.1 GENERAL OVERVIEW

In December of 1935, a thunderstorm produced 16.5 inches of rainfall which caused major flooding along the Buffalo Bayou through the City of Houston. Power to all Houston Ship Channel industries was cut off as Buffalo Bayou rose 10 inches every hour for 24 hours, reaching 52 feet above sea level at Capitol Street Bridge, where normally the bayou ran six feet above sea level.

In response to this catastrophe and to provide a measure of flood risk management for future events, Congress authorized the construction of Addicks and Barker Reservoirs as part of the Buffalo Bayou and Tributaries Project (BBTP). The BBTP was designed to reduce potential flood damages through a combination of reservoirs, channel improvements, and detention basins. Addicks and Barker Reservoirs serve as detention basins and were designed to collect excessive amounts of rainfall which would then be released into Buffalo Bayou at a controlled rate.

Addicks and Barker Reservoirs fulfill this purpose by impounding water during heavy rainfalls and flood events, but do not store water year-round as is typical of lake-forming reservoirs. This “dry” condition of the reservoirs provides the U.S. Army Corps of Engineers (USACE) with several management opportunities, primarily the management of natural and cultural resources and the development of recreational opportunities for the visiting public. The USACE is responsible for providing effective, long-term, sustainable management for both natural and cultural resources.

The construction of Barker Dam began in February 1942 and was completed in February 1945. The construction of Addicks Dam began in May 1946 and was completed in December 1948.

The Federally authorized project, Addicks and Barker Reservoirs, refers to the structures, facilities, and lands necessary for operation and maintenance of the Project.

1.2 PROJECT PURPOSE AND AUTHORIZATION

The Addicks and Barker Reservoirs were authorized as part of the Buffalo Bayou and Tributaries Project (BBTP) by the Rivers and Harbors Act, approved June 30, 1938. The BBTP was subsequently modified by the Flood Control Acts of August 11, 1939, and September 3, 1954. The BBTP provides for improvements to Buffalo Bayou and its principal tributaries, White Oak Bayou and Brays Bayou. The purpose of the project is to protect urban development in the downstream floodplain of Buffalo Bayou through the City of Houston. The sole authorized purpose of Addicks and Barker Reservoirs is to reduce potential flood damages within the downstream floodplain of Buffalo Bayou. Accordingly, all project lands are allocated to Operations, meaning the safe and effective operations of the reservoirs take precedence over all other uses.

1.3 PURPOSE AND SCOPE OF MASTER PLAN

In accordance with Engineer Regulation (ER) 1130-2-550 Change 07, dated 30 January 2013, and Engineer Pamphlet (EP) 1130-2-550 Change 05, dated 30 January 2013, master plans are required for most USACE water resources development projects having a federally owned land base. The revision of the Master Plan is intended to bring it up to date to reflect current ecological, socio-demographic, and outdoor recreation trends that are affecting the Project, as well as those anticipated to occur within the planning period of 2026 to 2051 (i.e., 25 years).

The Addicks and Barker Reservoirs Master Plan (MP) is the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the project. The Master Plan guides the efficient and cost-effective development, management, and use of project lands. This Master Plan is a vital tool for the responsible stewardship and sustainability of the project's resources for the benefit of present and future generations. The Master Plan guides and articulates USACE responsibilities pursuant to federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. The Master Plan is dynamic and flexible enough to accommodate changing conditions, focusing on carefully developed goals and objectives.

The purpose of this Master Plan revision is to examine existing land uses and resources within the USACE fee boundary, describe the needs and desires of community stakeholders, prescribe land use classifications for the USACE fee lands, and identify resource and land use management objectives. The Master Plan is the USACE guide for management of the Project natural resources.

The master planning process encompasses a series of interrelated and overlapping tasks involving the examination and analysis of past, present, and future environmental, recreational, and socioeconomic conditions and trends. With a generalized conceptual framework, the process focuses on four primary components, as follows:

- Regional and ecosystem needs
- Project resource capabilities and suitability
- Expressed public interests that are compatible with Project authorized purposes
- Environmental sustainability elements

It is important to note what the Master Plan does not address. This Master Plan does not address the technical aspects of the primary project purpose of flood risk management but instead seeks to provide a management framework that balances the stewardship of natural resources and provision of high-quality recreation opportunities with the primary project purposes. Per USACE regulation (EP 1130-2-550), details of design, management and administration, and implementation are addressed in the Operational Management Plan for the project. The Master Plan does not address the

specifics of regional water quality. The technical aspects of operation and maintenance of primary project operations facilities, including but not limited to the dam and spillway, is not included in this Master Plan.

Federal lands are to be managed in compliance with current USACE regulations, policy, and guidance. This Master Plan memorializes USACE assessment of land management needs, expressed public desires, and provides guidance for evaluation of specific developments, uses, and activities. Its purpose is to provide land development and utilization guidance that balances the needs and desires of the public with legal, policy, and resource constraints.

Current Federal laws, regulations, and policies are responsive to increasing needs for environmental protection and conservation. USACE policies recognize a greater need for environmental stewardship that includes conservation and protection of the Nation's natural resources. Consequently, the revised Master Plan reflects a more integrated ecological approach to land management. Information regarding the environmental impacts of land classification changes made in this revised Master Plan can be found in the Environmental Assessment for Addicks and Barker Reservoirs in Appendix B.

1.4 BRIEF WATERSHED AND PROJECT DESCRIPTION

Addicks and Barker Reservoirs are located in southeast Texas in the San Jacinto River basin approximately 17 miles west of downtown Houston. The reservoirs are strategically located above the confluence of the Buffalo Bayou and South Mayde Creek. Beyond this confluence, Buffalo Bayou continues east through downtown Houston, where it joins with White Oak Bayou and eventually becomes the Houston Ship Channel, which flows into the Galveston Bay. The majority of Addicks and Barker Reservoirs fall within Harris County; however, a small portion of Barker Reservoir crosses into Fort Bend County. Addicks Reservoir is situated on the north side of Interstate Highway 10 (I-10) with State Highway 6 (SH 6) bisecting the reservoir north to south. Barker Reservoir is situated on the south side of I-10, west of SH 6.

Addicks watershed is bound by West Little York Road on the north, West Beltway 8 on the east, IH 10 to the south, and Baker Cypress Road on the west. The watershed is roughly 15 miles long, 10 miles wide, and has a drainage area of approximately 136 square miles. Natural ground elevations in the basin vary from about 197 feet NAVD88 at the upstream divide to 68 feet NAVD88 at Addicks Dam. The main inflow contributors to Addicks are South Mayde Creek, Bear Creek, and their tributaries Horsepen Creek, Dinner Creek, and Langham Creek. During large events, Cypress Creek will overflow into Addicks.

Barker watershed is bounded by IH 10 on the north, SH 6 on the east, Westpark Tollway on the South, and Grand Parkway on the west. Barker watershed consists of Buffalo Bayou above Barker Dam and lies within Harris, Waller, and Fort Bend Counties. The watershed is a roughly trapezoidal area of approximately 130 square miles, is about 23 miles long with an average width of 6 miles. Natural ground elevations vary from 197 feet NAVD88 at the upstream divide to about 70 feed NAVD88

at the Barker Dam. Natural streamflow gradients in the basin are uniform at about 5 feet per mile sloping in a southerly direction.

1.5 PRIOR DESIGN MEMORANDA AND PLANNING REPORTS

Design Memoranda (DM) and planning reports were prepared setting forth design criteria for all aspects of the project, including the prime flood risk management facilities, real estate acquisition, road and utility relocations, and the master plan for recreation development and land management. Table 1.1 lists the Design Memoranda and other major reports for Addicks and Barker Reservoirs**.**

Table 1.1 Design Memoranda and Planning Reports

No.	Title	Date
	Definite Project Report, Buffalo Bayou, Texas	Jun 1940
	Analysis of Design, Buffalo Bayou Flood Control Project	Sep 1945
DM #1	Gating the Uncontrolled Conduits, Addicks and Barker Dams	Aug 1961
DM #1	Rehabilitation of Addicks and Barker Dams	Feb 1963
DM #2	Master Plan for Barker Dam and Reservoir and Addicks Dam and Reservoir	Aug 1963
DM #2	Updated Master Plan for Addicks and Barker Reservoirs	Nov 1977
	General Design Memorandum for Dam Safety Assurance	Jun 1984
	Supplement #1 to General Design Memorandum Dam Safety Assurance	Dec 1985
DM #3	Master Plan Update	Jun 1986
	Reconnaissance Report, Section 216 Study	Oct 1995
	Master Plan Addicks and Barker Reservoirs	Aug 2009

1.6 PERTINENT LAWS

Numerous public laws apply directly or indirectly to the management of federal land at Addicks and Barker Reservoirs. Listed below are several key public laws that are most frequently referenced in planning and operational documents. Refer to Appendix F for a more comprehensive listing.

- Flood Control Act of 1944, Public Law 78-534: Section 4 of the Act, as amended, authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for

lands, including facilities, preferably to federal, state, or local governmental agencies.

- Fish and Wildlife Coordination Act, Public Law 85-624: This Act, as amended, establishes the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife resources, and adverse effects on these resources, shall be examined along with other purposes which might be served by water resources development.

- National Historic Preservation Act of 1966, Public Law 89-665: This Act, as amended, provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states undertaking historic and archeological resource inventories; (3) a program of grants-in-aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires the President's Advisory Council on Historic Preservation to have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.

- Forest Conservation Act, Public Law 86-717: This law provides for the protection of forest and other vegetative cover for reservoir areas under the jurisdiction of the Secretary of the Army and the Chief of Engineers.

- Federal Water Project Recreation Act of 1965, Public Law 89-72: This Act, as amended, requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at federal reservoir projects shall be borne by a non-federal public body. A HQUSACE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.

- National Environmental Policy Act of 1969 (NEPA), Public Law 91-190: NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a *"continuing policy of the Federal Government... to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."* Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations, and public law of the United States shall be interpreted and administered in accordance with the policies of

the Act. It is Section 102 that requires consideration of environmental impacts associated with federal actions. Section 101 of NEPA requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony. Specifically, Section 101 of NEPA declares:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice.
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

- Native American Graves Protection and Repatriation Act (16 November 1990), Public Law 101-601: requires federal agencies to return Native American human remains and cultural items, including funerary objects and sacred objects, to their respective peoples.

1.7 PERTINENT PROJECT INFORMATION

Tables 1.2 and 1.3 provide pertinent information regarding key dates, reservoir elevations and storage capacity for Addicks and Barker Reservoirs.

Table 1.2 Pertinent Data for Addicks and Barker Reservoirs[1,2]

RESERVOIR	ADDICKS		BARKER	
Feature	Elevation (feet) [1]	Storage Capacity (acre-feet)	Elevation (feet) [1]	Storage Capacity (acre-feet)
Conduit Invert	66.0	29	68.5	0
Limits of Government Land	103.0	127,591	95.0	82,921
100-Year Flood [2]	103.8	136,687	97.0	107,363
Standard Project Flood	107.6	193,956	98.3	125,061
Natural Ground at end of Dam	108.0	199,649	104.0	209,600
Top of Dam	121.0	-	113.1	-

(1) Elevations are based on the NAVD88 datum
(2) Provisional until compliant with USACE Civil Works Review Policy

Table 1.3 Pertinent Data for Addicks and Barker Reservoirs

Feature	Addicks Reservoir	Barker Reservoir
Drainage Area	136 square miles	136 square miles
Dam Type	Rolled Earth Embankment	Rolled Earth Embankment
Dam Length	61,166 feet	71,900 feet
Dam Height (above stream bed)	48.5 feet	36.5 feet
Conduits	3 gated steel-lined conduits encased in concrete, 10’ diameter x 247’-8” long each	3 gated steel-lined conduits encased in concrete, 12’ diameter x 131’-11” long each
Stilling Basin	59.11’ parabolic chute spillway, 54.98’ long x 54.00’ wide longitudinal stilling basin; 833.63’ of pre-cast concrete block/articulating concrete block outlet channel	50.01’ parabolic chute spillway, 51.00’ long x 57.00’ wide longitudinal stilling basin; 856.23’ of pre-cast concrete block/articulating concrete block outlet channel

CHAPTER 2 – PROJECT SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.1 ECOREGION OVERVIEW

Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. The Environmental Protection Agency (EPA) has developed a series of maps that categorizes these regions across the United States. Levels I and II divide the North American continent into 15 and 52 regions, respectively, while Level III ecoregions represent a subdivision of those into 104 unique regions and Level IV a finer sub-classification of those. Addicks and Barker Reservoirs and its watershed are located in the Level III Gulf Prairie and Marshes ecoregion as illustrated in Figure 2.1 (EPA 2021).

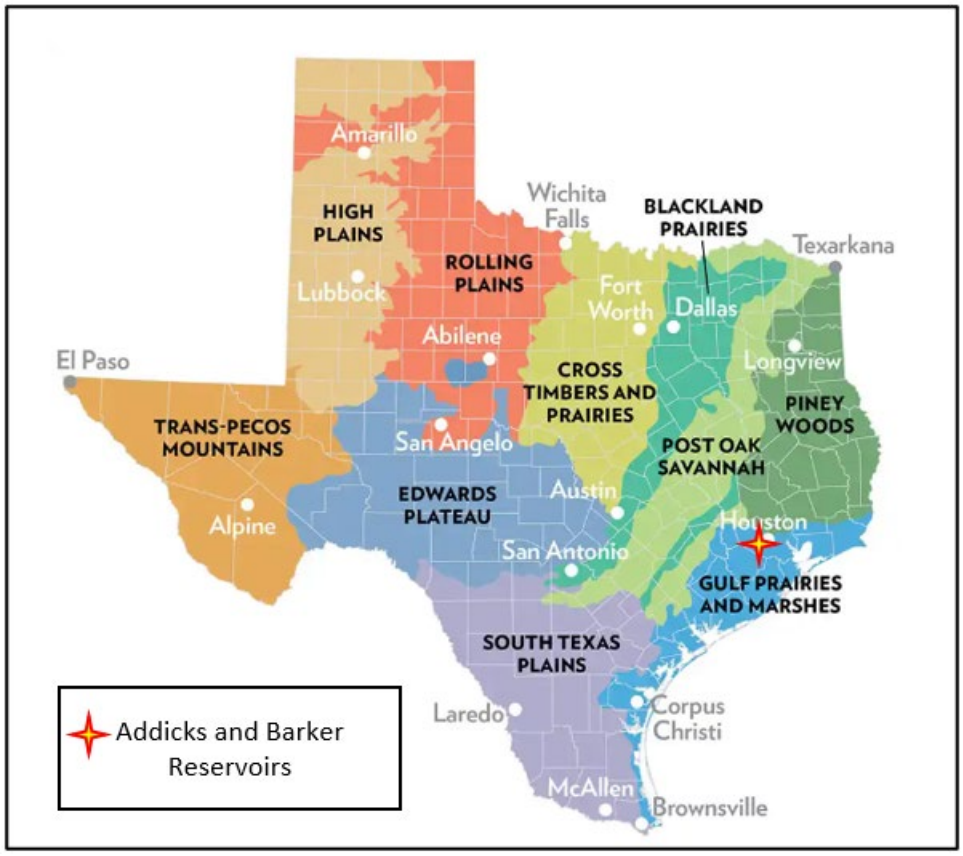


Figure 2.1 Addicks and Barker Reservoirs within Texas Ecoregions

The Gulf Prairies and Marshes Ecoregion contains an assemblage of grasslands, wooded stream bottoms and upland wooded areas. Prior to European settlement and

twentieth-century development, the region included woodlands of hackberry, pecan, elms, and live oaks interspersed with open prairies of native grasses dominated by little bluestem and other typical prairie species. Coastal forests of the Upper Texas Coast Ecoregion typically occur along rivers and bayous and on ridges, barrier islands, and delta splays (TPWD, 2025).

2.2 HYDROMETEROLOGICAL CONDITIONS, CLIMATE, AND GREENHOUSE GASES (GHG)

2.2.1 Hydrometeorological Conditions

The U.S. Global Change Research Program (USGCRP) looks at potential impacts of climate change globally, nationally, regionally, and by resource (e.g., water resources, ecosystems, human health). Addicks and Barker Reservoirs area lies within the Southern Great Plains region of analysis, which covers Texas, Oklahoma, and Kansas. The Southern Great Plains region has already seen evidence of climate change in the form of rising temperatures that are leading to increased demand for water and energy and impacts on agricultural practices. Over the last few decades, the Southern Great Plains has seen fewer cold days in winter and more hot days in summer, as well as changes to precipitation patterns. The decrease in the cold days has resulted in an overall increase of the frost-free season. Within this region, there has been an increase in average temperatures 1° – 2° Fahrenheit (F) since 1901 (Nielson-Gammon et al., 2020). The changing precipitation patterns in the region has led to more frequent extreme droughts, storms, and flood events. If the current rate of greenhouse gas (GHG) emissions continues, the potential increase will be much higher by 2100. The USACE mission for the Responses to Climate Change Program is “to develop, implement, and assess adjustments or changes in operations and decision environments to enhance resilience or reduce vulnerability of USACE projects, systems, and programs to observed or expected changes in climate.” The effects of climate change and mitigation efforts are evolving, and Addicks and Barker Reservoirs and all federally owned property will be managed to comply with laws and executive orders to respond to the growing threat of climate change.

2.2.2 Climate

Addicks and Barker Reservoirs lie in the central southeastern part of the state of Texas. The climate of the study area is humid subtropical with warm to hot summers and mild winters. The average annual high temperature is about 76 degrees Fahrenheit, with an average summer high of about 88 degrees for the months of June, July, and August, and an average annual winter low temperature of 66 degrees. Periods of freezing temperatures are infrequent and rainfall averages about 44 inches annually (National Weather Service, 2025). Severe weather occurs periodically in the form of thunderstorms, tornadoes, tropical storms and hurricanes.

2.3 AIR QUALITY

The U.S. Environmental Protection Agency (EPA) has the primary responsibility for regulating air quality nationwide. The Clean Air Act (42 U.S.C. 7401 et seq.), as amended, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards classified as either “primary” or “secondary.” Primary standards set limits to protect public health, including the health of at-risk populations such as people with pre-existing heart or lung diseases (such as asthma), children, and older adults. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings.

EPA has set NAAQS for six principal pollutants, which are called “criteria” pollutants. These criteria pollutants include carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), particulate matter less than 10 microns (PM10), particulate matter less than 2.5 microns (PM2.5), sulfur dioxide (SO2) and lead (Pb). If the concentration of one or more criteria pollutant in a geographic area is found to exceed the regulated “threshold” level for one or more of the NAAQS, the area may be classified as a non-attainment area. Areas with concentrations of criteria pollutants that are below the levels established by the NAAQS are considered either attainment or unclassifiable areas. The majority of both Addicks and Barker Reservoirs fall within Harris County; however, a small portion of Barker Reservoir crosses into Fort Bend County. Harris and Fort Bend County are both designated as a serious nonattainment area for the EPA’s 8-hour ozone standard (TCEQ, 2024).

2.4 GEOLOGY, TOPOGRAPHY, AND SOILS

2.4.1 Geology

The geology of Harris County, Texas, is mostly the Lissie and Beaumont formations. Isolated zones of Alluvium and Fill and Spoil are present along portions of the Houston Ship Channel. Alluvium is also present on either side of the San Jacinto River as it extends south from Lake Houston and intersects the Houston Ship Channel. Pockets of the Deweyville Formation exist adjacent to the Alluvium along the San Jacinto River. The Willis Formation is present in the far northwest portion of Harris County and also generally parallels the Gulf Coast of Texas.

The Beaumont Formation consists of Pleistocene Age deposits of mostly clay, silt, and sand, including stream channel, point-bar, natural levee, backswamp, coastal marsh, and mud-flat deposits. Beaumont clays are typically stiff to hard consistency with undrained shear strengths ranging from about 1,000 psf to over 5,000 psf. The clays are over consolidated with an over consolidation ratio range of 2 to 8. The clays have joints and fissures, randomly oriented, sometimes containing sand and/or silts which occur as thin seams. Unfilled fissures can be slickensided. The clays have a moderate to high

potential for shrink/swell. The Beaumont Formation is poorly drained with a slow permeability.

The Lissie Formation is mid-Pleistocene Age, deposited in shallow coastal river channels and flood plains. It is about 200 feet thick, heterogeneous, and interbedded. The soils are sand, silt, clay, and a minor amount of gravel. Iron oxide and iron-manganese nodules are common in the weathering zone. The surface is fairly flat and featureless except for many shallow depressions and small mounds.

Natural ground elevations in the Addicks and Barker Reservoir watersheds vary from approximately 200 feet at the upstream to about 68 feet at Addicks Dam and 70 feet at Barker Dam. Natural stream flow gradients in the basin are consistent at about five feet per mile sloping in a southeasterly direction. Harris County is within the Gulf Coastal Prairies Province 15 that is a broad swath of land paralleling the Gulf of Mexico coastline with a land surface dropping southwest towards the Gulf. There are no reported active earthquake capable faults in the Texas Gulf Coast region (Mayer 2019).

2.4.2 Topography

The topography within the reservoirs is generally flat with a slight decrease in elevation (about 30 feet) from west to east. Although the overall topography is flat, there are three micro-topographic features that contribute greatly to the ecosystem, prairie potholes, Mima (pimple) mounds, and gilgai. Mima mounds and gilgai are discussed below.

Prairie potholes is a term used to describe any freshwater depression. Potholes and marshes are similar with the distinction being size, as marshes will be larger and less well-defined as potholes. These wetlands at one time covered large areas of prairie prior to development and agriculture eliminated most of them. Potholes can occur in complexes with small hummock or mounds (1-2 feet tall). The topographic pattern is often very intricate.

The name Mima mounds originates from the Mima Prairie in Washington State, where hundreds of the grassy bumps are located. However, Mima mounds have also been located in Arkansas, California, Louisiana, Texas, Idaho, and Wyoming, and in other countries including Mexico, Canada, Argentina, China, and Kenya. Excavations made into the Washington mounds show that underneath a blanket of prairie grass lies a mixture of loose sand, fine gravel, and decayed plants. Bernard Hallet, a geologist at the University of Washington explains that this is unusual, as most land surfaces have a top layer of organic material, dead plants and animals, no more than half a meter (1.6 ft) thick, while Mima mounds are made of organic-rich soil more than 2 meters thick. The exact origin of Mima mounds is still under debate, however two theories of their origin are: seismic activity (vibrations from violent earthquakes could have formed the Mima mounds) and pocket gophers (gophers tunneling into loose soil run into a gravel layer below, unable to burrow any farther, the gophers start building upward and outward).

Gilgai is a term referring to a series of microridges and associated microdepressions. Gilgais are commonly a few meters across and less than 30 cm deep. Gilgais form on clay soils due to the swelling of the clay when wet and subsequent shrinkage upon drying. This action causes the soil to crack when dry and loose soil material then fills these cracks. When the soil swells upon subsequent re-wetting the soil pressure cannot be dispersed into the now-full cracks and the soil is forced sideways causing a mound to form between cracks and a depression to form at the location of the crack. The process is then further exaggerated by the depressions holding water and thus becoming wetter and swelling more than the mounds, causing even greater shrinkage and cracking. In addition, the cracks channel water deeply into the soil causing even greater swelling and subsequent cracking of the depression areas. Each cycle of swelling, shrinkage and cracking becomes more exaggerated, and the landscape eventually becomes covered by a repeated pattern of ridges and depressions (Mayer 2019).

2.4.3 Soils

The National Resources Conservation Service (NRCS) Web Soil Survey Tool (WSST) reports 22 soil types (not including water or Dam) occurring within Addicks and Barker Reservoirs. Table 2.1 lists the acreage and farmland status associated with each soil and surface type in the reservoirs while Figure 2.2 shows each soil type.

The main soil series within Addicks and Barker Project Lands is the Clodine fine sandy loam, 0 to 1 percent slopes. Of the 22 soil types at Addicks and Barker Reservoirs, this soil association makes up 20.74 percent of soils found and is not a prime farmland soil.

Table 2.1 Soil Types Present at Addicks and Barker Reservoirs (NRCS, 2025)

Soil Type	Is Prime Farmland?	Acres	% of Total Acreage
Clodine fine sandy loam, 0 to 1 percent slopes	No	5469.75	20.75
Addicks loam, 0 to 1 percent slopes	No	5209.02	19.76
Bernard clay loam, 0 to 1 percent slopes	Yes	2129.73	8.08
Verland silty clay loam	No	2039.38	7.74
Cyfair fine sandy loam, 0 to 1 percent slopes	If Drained	1785.02	6.77
Cyfair-Katy complex, 0 to 1 percent slopes	If Drained	1740.30	6.60
Katy fine sandy loam, 0 to 1 percent slopes	Yes	1426.30	5.41
Hatliff-Pluck-Kian complex, 0 to 1 percent slopes, frequently flooded	No	901.63	3.42

Soil Type	Is Prime Farmland?	Acres	% of Total Acreage
Snakecreek fine sandy loam, 0 to 1 percent slopes, frequently flooded	No	807.23	3.06
Cyfair-Urban land complex, 0 to 1 percent slopes	No	770.12	2.92
Katy-Urban land complex, 0 to 1 percent slopes	No	707.14	2.68
Dams	No	647.15	2.45
Clodine-Urban land complex, 0 to 1 percent slopes	No	540.26	2.05
Bacliff clay, 0 to 1 percent slopes	If Drained	506.39	1.92
Clodine-Warrenlake very fine sandy loams complex, 0 to 1 percent slopes	No	429.30	1.63
Edna loam, 0 to 1 percent slopes	No	407.60	1.55
Lake Charles clay, 0 to 1 percent slopes	Yes	245.40	0.93
Bernard-Edna complex, 0 to 1 percent slopes	Yes	231.45	0.88
Bacliff clay, 0 to 1 percent slopes, rarely flooded	If Drained	192.54	0.73
Water	No	91.32	0.35
Addicks-Urban land complex, 0 to 1 percent slopes	No	33.91	0.13
Aris-Urban land complex, 0 to 1 percent slopes	No	24.49	0.09
Mocarey-Urban land complex, 0 to 1 percent slopes	No	24.17	0.09
Gessner loam, 0 to 1 percent slopes, frequently ponded	No	3.46	0.01

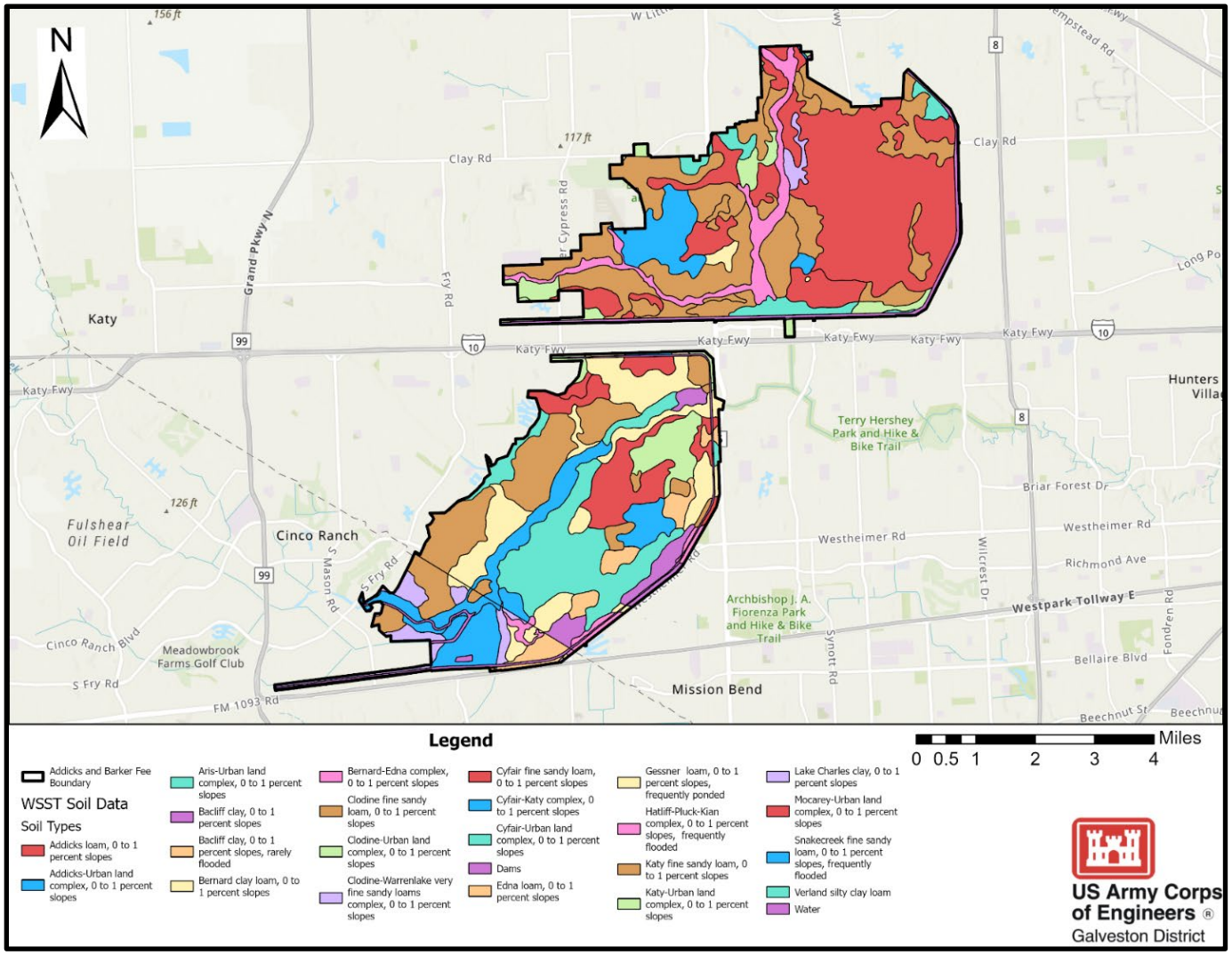


Figure 2.2 Soil Types at Addicks and Barker Reservoirs (NCRS, 2025)

2.4.4 Prime Farmland

As required by Section 1541(b) of the Farmland Protection Policy Act (FPPA) of 1980 and 1995, 7 U.S.C. 4202(b), federal and state agencies, as well as projects funded with federal funds, are required to (a) use the criteria to identify and take into account the adverse effects of their programs on the preservation of farmland, (b) consider alternative actions, as appropriate, that could lessen adverse effects, and (c) ensure that their programs, to the extent practicable, are compatible with state and units of local government and private programs and policies to protect farmland.

There are 4 soil types in the study area that are considered prime farmland soils and 4 soil types that are prime farmland if they are drained. Approximately 4032 acres of soils are considered Prime Farmland and approximately 4224 acres are considered Prime Farmland if they are drained. However, the lands represented by these soil types have not been used for farming since the lands were acquired prior to the initiation of construction of Addicks and Barker Reservoirs in 1940. Figure 2.3. shows the Prime Farmland status of soils across Addicks and Barker Reservoirs.

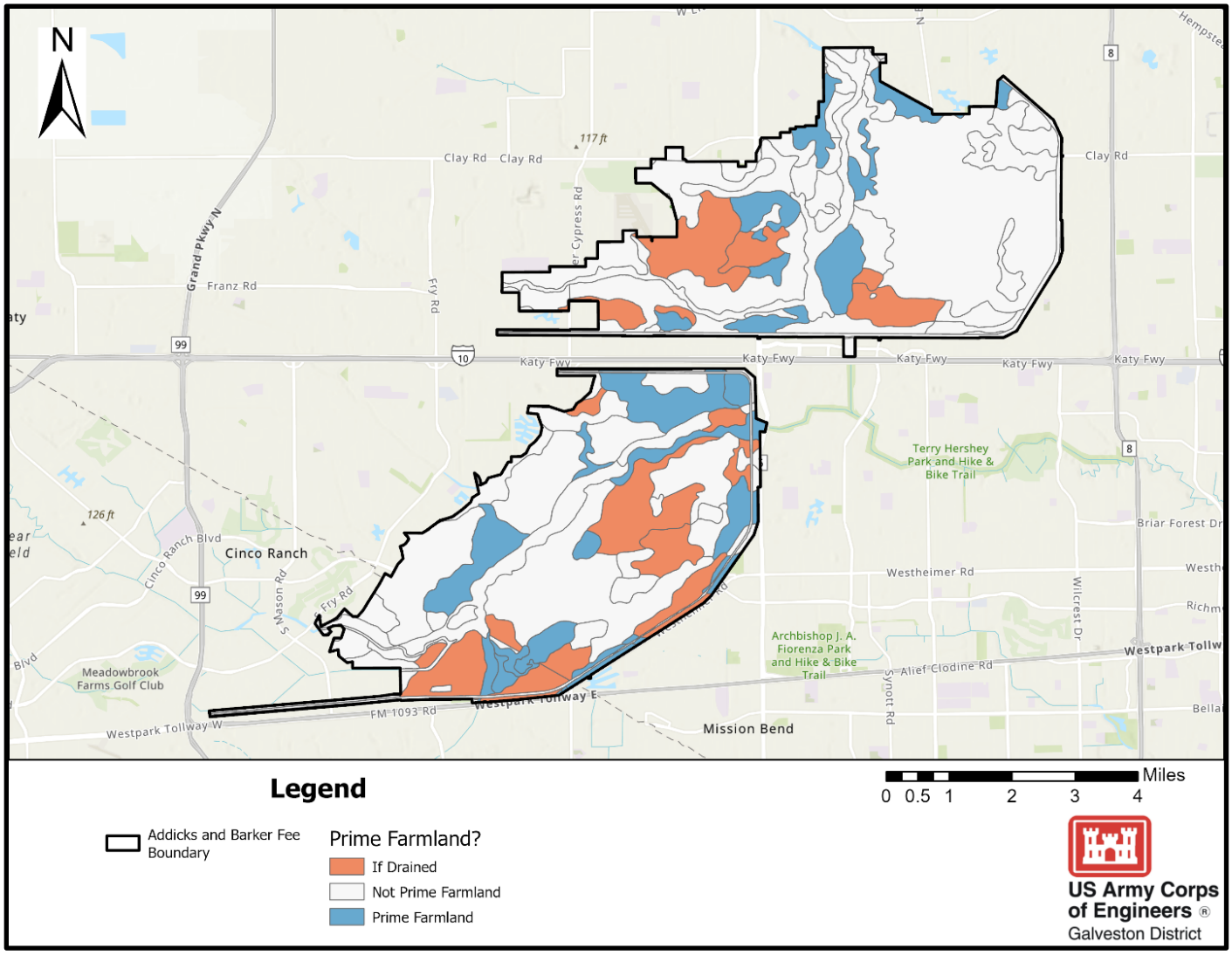


Figure 2.3 Prime Farmland Status of Soils at Addicks and Barker Reservoirs

2.5 WATER RESOURCES

2.5.1 Hydrology and Surface Water

The hydrology within the basin is greatly affected by major storms. Most major storms in the San Jacinto Basin occur from April through June and September through November. Thunderstorms and the remnants of hurricanes are the type of storms that produce most high runoff events in the basin. Major factors that determine the amount of runoff from a given storm include time of year and soil moisture conditions. Thus, some lesser storm events can result in runoff as great as or greater than storms of higher precipitation. Generally, the storms common to the drainage basin are not of uniform intensity.

Surface waters are categorized to hydrologic units. Hydrologic units are classified by the United States Geologic Survey (USGS) using a Hydrologic Units Code system, also referred to as HUC's. The units are classified from largest HUC with is a two-digit region (i.e., the Texas Region), encompassing the largest area, to a twelve-digit sub-watershed HUC. Addicks and Barker reservoirs are classified to the ten-digit HUC Watershed level as follows:

- 12 (HUC 2: Region) – Texas Region
- 1204 (HUC 4: Sub-region) – Galveston Bay-San Jacinto
- 120401 (HUC 6: Basin) – San Jacinto
- 12040104 (HUC 8: Sub Basin) – Buffalo-San Jacinto
- 1204010402 (HUC 10: Watershed) – Addicks Reservoir
- 1204010401 (HUC 10: Watershed) – Barker Reservoir

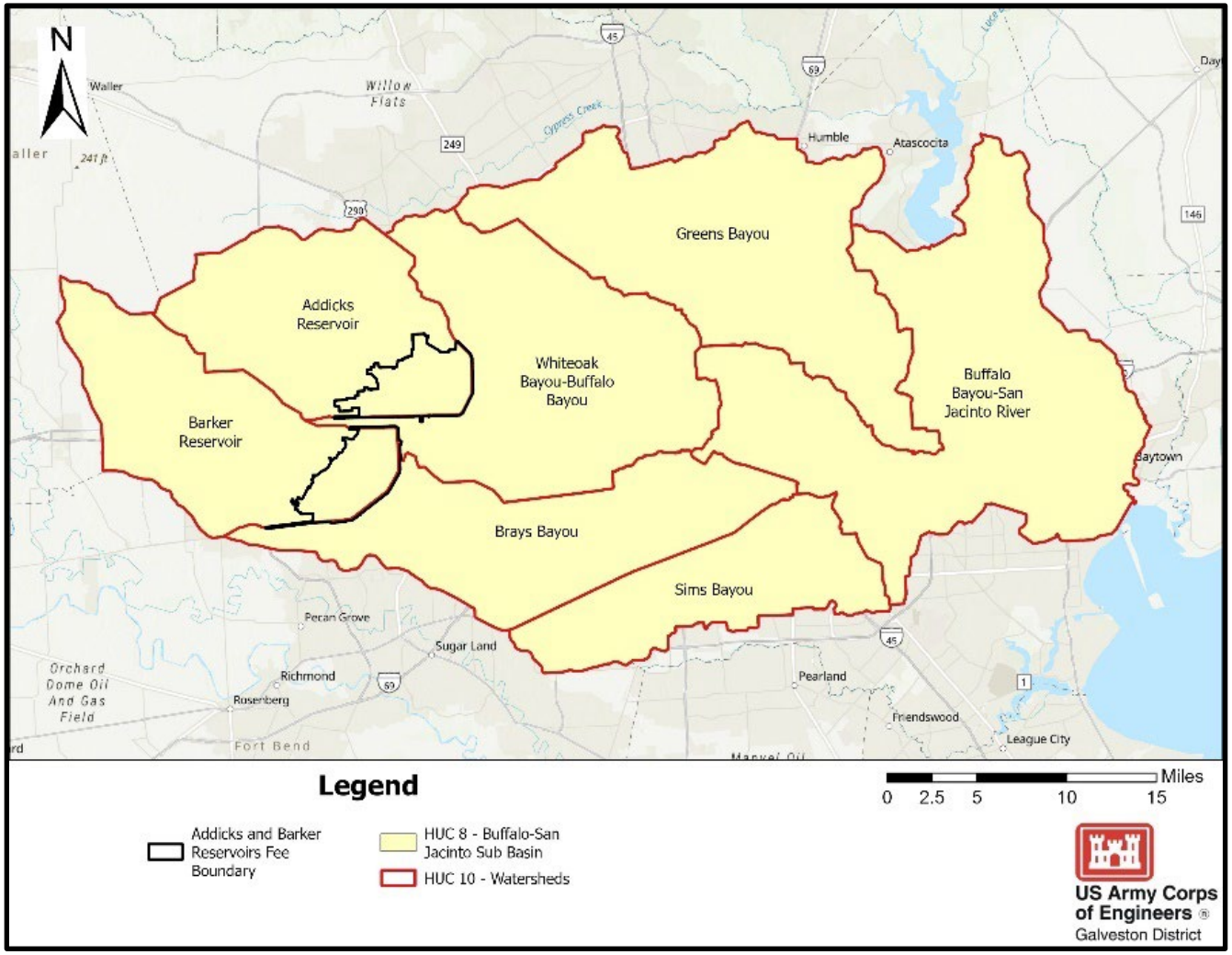


Figure 2.4 HUC 10 Watershed

The Project lies wholly within the Buffalo-San Jacinto Sub Basin covering two watersheds: Addicks Reservoir and Barker Reservoir shown in Figure 2.4. watershed includes portions of the cities Houston, Katy, and Fort Bend with a population around 500,000. There are two major impoundments behind dams, located at Addicks and Barker reservoir respectively. USACE is the primary manager of the dams and is constantly monitored.

2.5.2 Wetlands

Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, and under normal circumstances these wetlands do support this vegetation type. Wetlands are a subset of the Waters of the United States and may be subject to regulation under Section 404 (40 CFR 230.3), which is defined within the Clean Water Act (CWA). Jurisdiction for these waters is addressed with the USACE and EPA.

The National Wetlands Inventory (NWI) established by the U.S. Fish and Wildlife Service (USFWS) was used to identify wetlands occurring at Addicks and Barker Reservoirs. Table 2.2 quantifies the number of acres per wetland type and Figure 2.5 displays the wetland types at Addicks and Barker Reservoirs based on NWI data.

The wetlands on Addicks and Barker Reservoirs are easily divided into two categories: riparian (riverine) or depressional (prairie potholes). Wetlands are continually subject to periodic inundation of water which saturates the soil and supports vegetation which can tolerate these soils. Wetlands like those found in the reservoirs and nearby Katy Prairie provide vital habitat for aquatic species. Based on the USFWS National Wetland Inventory (NWI) data, Addicks and Barker Reservoirs contain approximately 3,400 acres and 4,100 acres of wetlands respectively.

Table 2.2 NWI Wetland Types found at Addicks and Barker Reservoirs (USFWS, 2025)

NWI Wetland Type	Acres
Freshwater Forested/Shrub Wetland	6612
Freshwater Emergent Wetland	556
Freshwater Pond	217
Riverine	184
Other	94
Total Wetland Acreage	7663

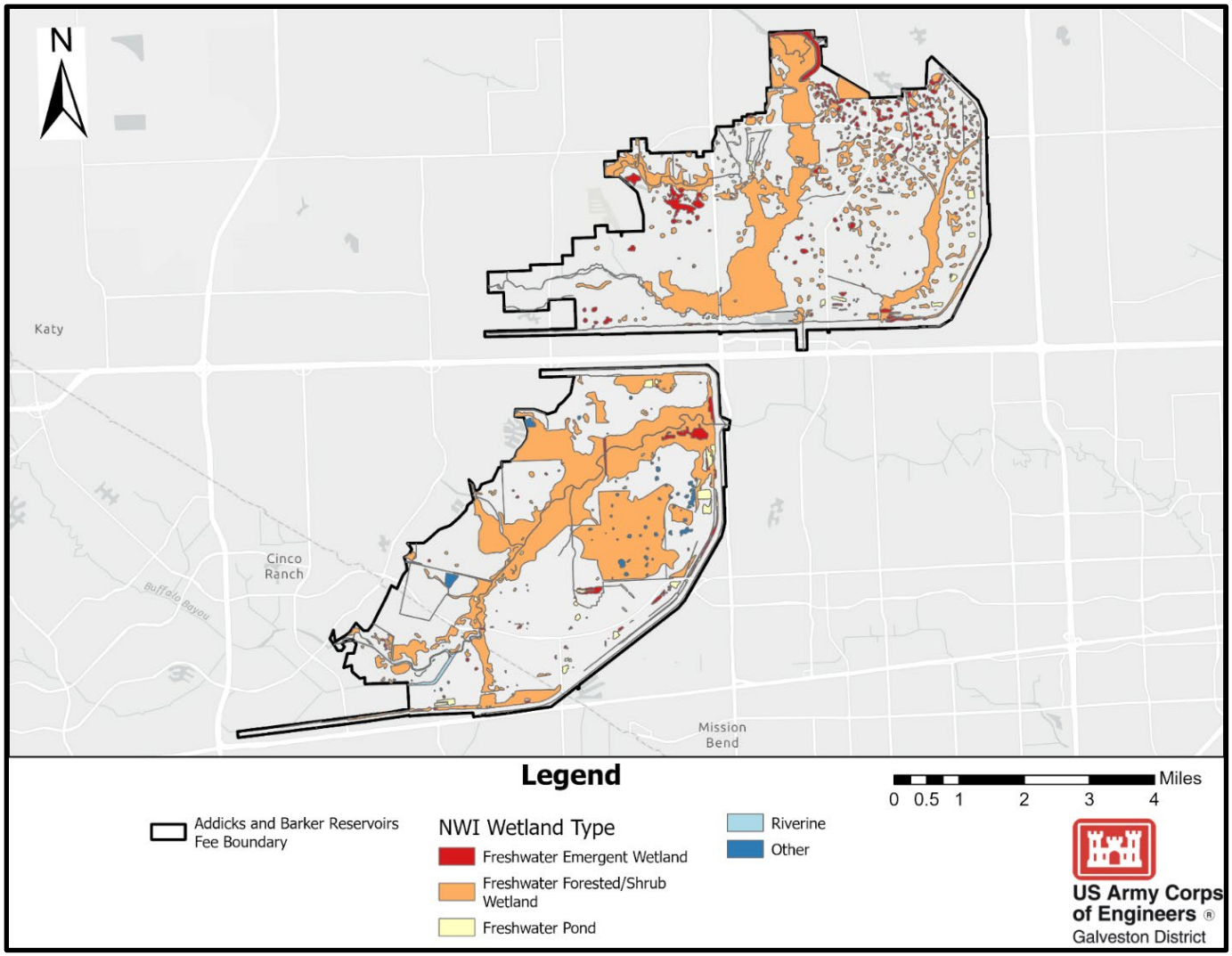


Figure 2.5 NWI Wetland Types at Addicks and Barker Reservoirs (USFWS 2025)

2.5.3 Ground Water

The Galveston Bay-San Jacinto sub region falls under Texas Ground Water Management Area 14 and contains the Gulf Coast major Aquifer Figure 2.6. The Gulf Coast Aquifer covers an area of 41,970 square miles and supplies approximately 1.4 million acre-feet of water per year. The overall water quality has been identified as impaired, with known sources of contamination located upstream of the reservoirs. A portion of the water contained within the aquifer is brackish water due to its proximity to the coast.

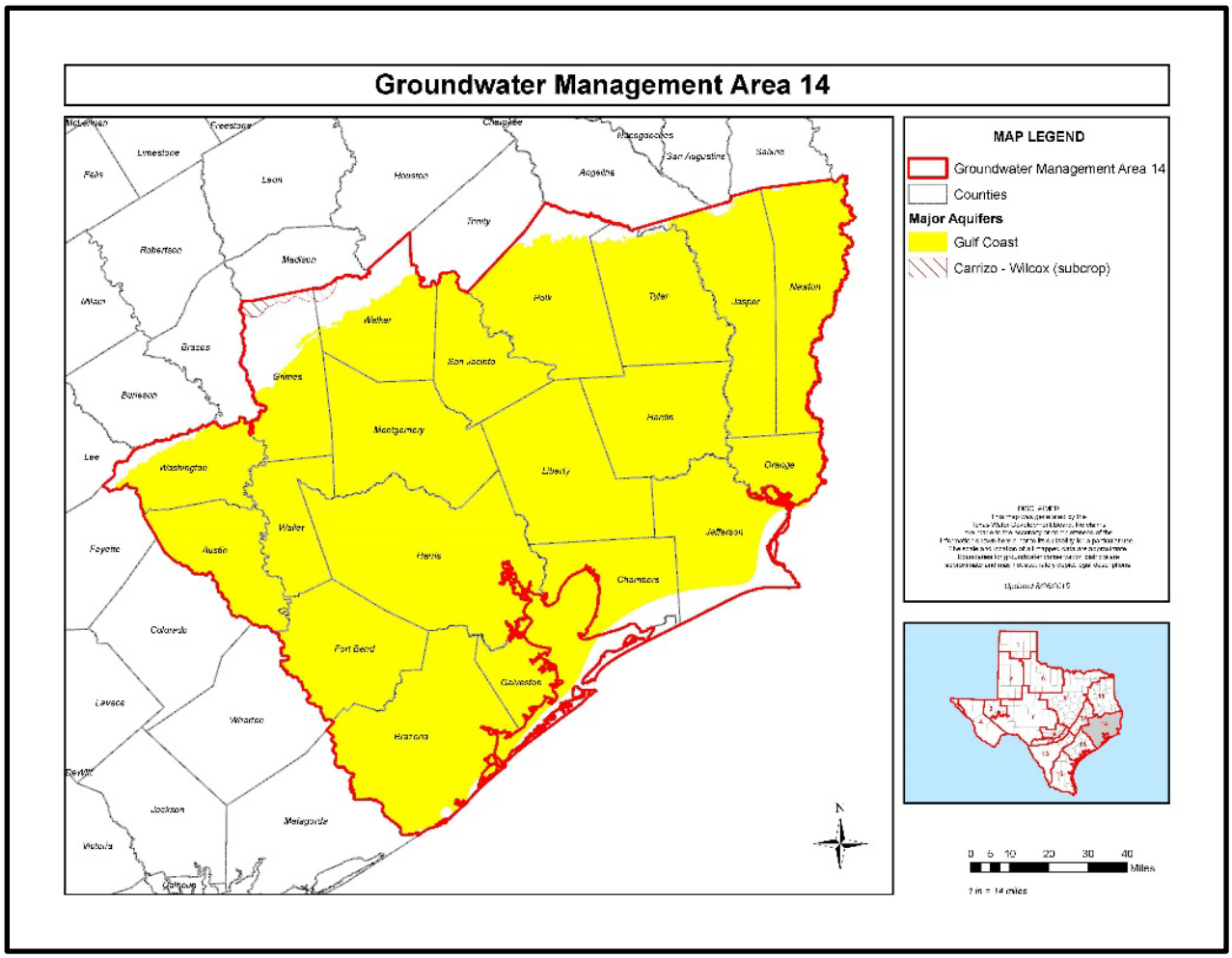


Figure 2.6 Major Aquifer: Gulf Coast

2.5.4 Water Quality

Texas Commission of Environmental Quality (TCEQ) sets and implements standards for surface water quality to improve and maintain the quality of water in the state, based on various beneficial use categories for the water body. The Water Quality Management Plan (WQMP) in Texas is a requirement of the Federal Clean Water Act Sections 303(d) and 305(b), evaluates the quality of surface waters in Texas and

identifies those that do not meet uses and criteria defined in the Texas Surface Water Quality Standards (TSWQS). The Integrated Report describes the status of Texas natural waters based on historical data and assigns waterways to various categories depending on the extent to which they attain the TSWQS.

Existing water quality within San Jacinto Basin is affected by rainfall and associated stormwater flows originating from residential, commercial, and industrial point and nonpoint sources from properties. These stormwater flows have increased over time as a result of increased urbanization, development, and climate change. The overall water quality has been identified as impaired, with known sources of contamination located upstream of the reservoirs.

2.6 HAZARDOUS MATERIALS AND SOLID WASTE

There are no known Hazardous, Toxic or Radioactive Waste (HTRW) sites on the reservoirs. No impacts associated with the HTRW sites within the project study area are anticipated. Four solid waste disposal sites are listed in the database search as occurring within three miles of Addicks and Barker Reservoirs. Three properties within the radius are listed as “Voluntary Cleanup Properties.” Two historical dry-cleaning locations occur within the radius. None of these properties are known to present an environmental risk to the proposed project area.

2.7 HEALTH AND SAFETY

Addicks and Barker Reservoir’s authorized purpose is to reduce potential flood damages within the downstream floodplain of Buffalo Bayou. Additional uses to the flood control mission include recreation and conservation of wildlife through habitat management. The project has established recreation management practices to protect the public to include speed limit and pedestrian signs for park roads. The recreation at Addicks and Barker are not managed by USACE but leased out to recreation partners. The outgrants include established recreation management practices to protect the public. With no permanent pool at either project, no boating is allowed. Addicks and Barker Reservoirs also have solid waste management plans in place for areas that are maintained by the USACE.

2.8 NATURAL RESOURCES

2.8.1 Vegetation Resources

Addicks and Barker Reservoirs fall in ecoregion Northern Humid Gulf Coastal Prairies (Level IV) Figure 2.7. The original vegetation in this ecoregion was mostly grasslands with a few clusters of oaks, known as oak mottes or maritime woodlands. Little bluestem, yellow Indiangrass, brown seed paspalum, gulf muhly, and switchgrass were the dominant grassland species. Now the invasive Chinese Tallow tree and Chinese Privet have invaded much of the region.

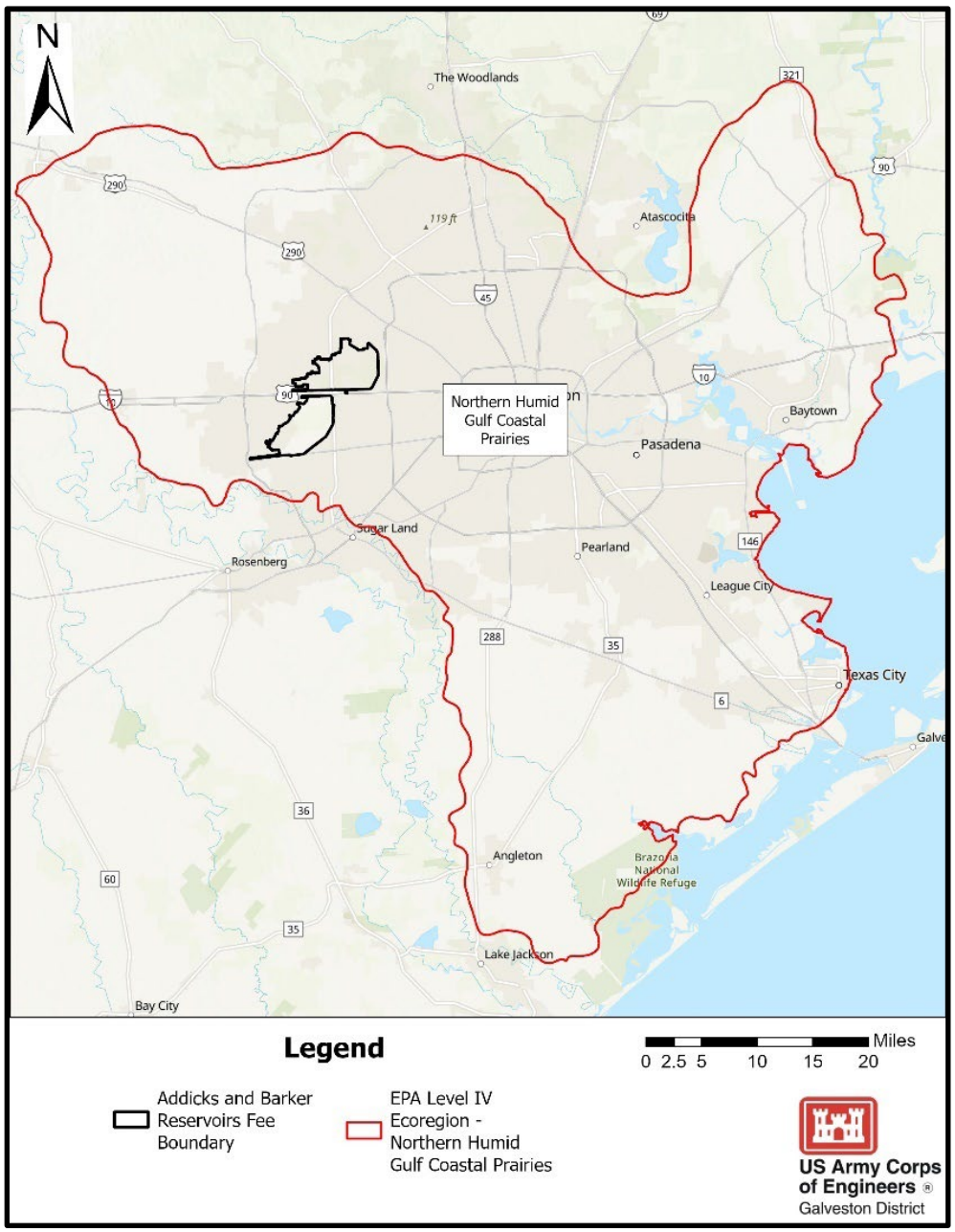


Figure 2.7 Addicks and Barker Reservoirs Eco Region Level IV

This region like so many other ecological regions in Texas has undergone significant changes in the past 150 years. Although habitat for wildlife is present throughout the ecological regions as a whole, populations vary considerably within sub-regions. The diversity and configuration of the plant communities on the landscape influence wildlife populations. Other factors include fragmentation of once continuous habitat into smaller land holdings; competition for food and cover with livestock; conversion of woodland habitat to improved pastures, or urban and rural developments; and lack of proper wildlife and habitat management.

2.8.2 Fisheries and Wildlife Resources

Addicks and Barker Reservoirs provide habitat for an abundance of fish and wildlife species. Predominant fish species in the reservoirs are largemouth bass (*Micropterus salmoides*), channel catfish (*Ictalurus punctatus*), blue catfish (*Ictalurus furcatus*), flathead catfish (*Pylodictis olivaris*), white crappie (*Pomoxis annularis*), black crappie (*Pomoxis nigromaculatus*), and bluegill (*Lepomis macrochirus*).

Many of the undeveloped open spaces provide habitat for wildlife including white tailed deer (*Odocoileus virginianus*), coyotes (*Canis latrans*), bobcats (*Lynx rufus*), grey squirrels (*Sciurus carolinensis*), opossum (*Didelphis virginiana*), nine-banded armadillos (*Dasypus novemcinctus*), striped skunks (*Mephitis mephitis*), raccoons (*Procyon lotor*), and wild boars (*Sus scrofa*). The area also provides habitat for a diverse range of birds including great blue herons (*Ardea herodias*), turkey vultures (*Cathartes aura*), American crows (*Corvus brachyrhynchos*), and bald eagles (*Haliaeetus leucocephalus*) and acts as a stopover for migratory birds.

2.8.3 Threatened and Endangered Species

The Endangered Species Act was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. USFWS is the primary agency responsible for implementing the Endangered Species Act and is responsible for birds and other terrestrial and freshwater species. USFWS responsibilities under the Endangered Species Act include (1) the identification of threatened and endangered species; (2) the identification of critical habitats for listed species; (3) implementation of research and recovery efforts for these species; and (4) consultation with other Federal agencies concerning measures to avoid harm to listed species.

An endangered species is officially recognized by USFWS as being in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under Section 4 of the Endangered Species Act. Species may be considered eligible for listing as endangered or threatened when any of the five following criteria occur: (1) current/imminent destruction, modification, or curtailment of their habitat or range; (2) overuse of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; and (5) other natural or human-induced factors affecting their continued existence.

In addition, USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The candidate designation includes those species for which USFWS has sufficient information to support proposals to list as endangered or threatened under the Endangered Species Act; however, proposed rules have not yet been issued because such actions are precluded at present by other listing activity. Although not afforded protection by the Endangered Species Act, candidate species may be protected under other federal or state laws.

By protecting a specific species, the USFWS and National Marine Fisheries Service (NMFS) may list them as endangered, threatened, listed, migratory, and or protected. A species can have more than one protection measure with the exclusion of endangered, threatened, and listed. A species cannot be both endangered and threatened; however, a species can be endangered, migratory and protected.

- Endangered is officially recognized by USFWS as being in danger of extinction throughout all or a significant portion of its range. Under this protection measure, a species cannot be taken, essential habitat altered and destroyed, nor transported without a permit. Take means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” (USFWS, 2025A).
- Threatened means any species recognized by the USFWS as being likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Under this protection measure, a species cannot be taken, essential habitat altered and destroyed, nor transported without a permit.
- Candidate is a species for which the USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.
- Protected means that there are other Federal laws and regulations protecting the species than the Endangered Species Act. Examples include Bald and Golden Eagle Protection Act, Lacey Act, and Migratory Bird Treaty Act. Just because a species is listed as migratory doesn’t automatically qualify it as protected; it must be protected by more than one law.
- Migratory means it applies specifically to migratory birds. The law that governs these species is the Migratory Bird Treaty Act. Under this law “it is illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid Federal permit” (USFWS, 2025).

The USFWS may list a species under “Similarity of Appearance (Threatened)” because of the species’ similarity of appearance to another species that is currently listed as threatened. Under this classification these species will not have to go through Section 7 Consultation of the Endangered Species Act because they are not biologically endangered. However, under this listing category, the species may be protected by Section 9 of the Endangered Species Action, which primarily prohibits the “taking” of endangered species of fish and wildlife.

The USFWS’s Information for Planning and Consultation (IPaC) database (USFWS, 2025) lists the threatened and endangered species, and trust resources that may occur within the Addicks and Barker Reservoirs Federal Fee Boundary (see

USFWS Species List and the IPAC Report in Appendix C). Based on the IPaC report, there are nine federally listed, proposed, or candidate species that could be found within Addicks and Barker Reservoirs (USFWS, 2025). A list of these species is presented in Table 2.3. There is no Critical Habitat designated within or near Addicks and Barker Reservoirs.

Table 2.3 Federally Listed Threatened & Endangered Species with Potential to Occur at Addicks and Barker Reservoirs

Common Name	Scientific Name	Federal Status	State Status
Alligator Snapping Turtle	*Macrochelys temminckii*	Proposed Threatened	Not Listed
Eastern Black Rail	*Laterallus jamaicenis*	Threatened	Not Listed
Monarch Butterfly	*Danaus plexippus*	Proposed Threatened	Not Listed
Piping Plover	*Charadrius melodus*	Threatened	Not Listed
Red Knot	*Calidris canutus rufa*	Threatened	Not Listed
Texas Fawnsfoot	*Truncilla macrodon*	Threatened	Not Listed
Texas Prairie Dawn-flower	*Hymenoxys texana*	Endangered	Not Listed
Tricolored Bat	*Perimyotis subflavus*	Proposed Endangered	Not Listed
Whooping Crane	*Grus americana*	Endangered	Not Listed

The alligator snapping turtle (*Macrochelys temminckii*) is a reptile that is currently being considered by the USFWS as a threatened species wherever it may be found (USFWS, 2025). The turtle is a carnivorous species that primarily inhabits freshwater bodies of water like marshes, swamps, creeks, rivers, ponds, and lakes. It is characterized by the three rows of points that run along the topside of its shell, as well as the jagged edges of its shell. The turtle can grow up to 250 lbs, and be over 2ft in length (USFWS, 2022A). It is primarily an ambush predator that attracts its prey while submerged by waving its tongue and waiting until something comes close enough for it to attack. It can also be an opportunistic scavenger that will feed on carrion that it comes across. Even though there is an abundance of food and habitat within the fee boundary at Addicks and Barker Reservoirs, there is a lack of recent official and informal sightings, in part due to the lake location being so far upstream of known areas of occurrence.

The eastern black rail (*Laterallus jamaicensis*) is a bird that is listed as endangered in wherever found (USFWS 2025B). The bird is small in size with the wingspan of 8.7 to 11 inches. It has gray-black in coloration, with white speckled upperparts, and has a grayish crown, a chestnut-colored nape of the neck, and a short tail. They require dense vegetation cover that allows for movement underneath the canopy. Habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh. These birds are foragers known to eat small insects, snails, and small

crustations. These birds are extremely reclusive and would be rare to see in the Addicks and Barker Reservoirs.

The Monarch butterfly (Danaus plexippus) is listed as a proposed threatened species wherever it is found (USFWS, 2025C). It is an orange butterfly with black stripes and white dots on its wings, whose span can be up to 10 cm. Its breeding habitat consists primarily of milkweed species (Asclepias spp.), which larvae feed exclusively. When it is in North America and is migrating, the species can be found pretty much wherever blooming flowers are. Addicks and Barker boundary may contain a blooming flowers and milkweed; this along with numerous recent sightings confirms that this species is common within the area when the species is migrating and during breeding season.

The piping plover (*Charadrius melodus*) is a shorebird listed as endangered in the watershed of the Great Lakes of North America and threatened in the remainder of its range, which includes the Northern Great Plains, the Atlantic Coast, the Gulf Coast, the Bahama Islands, and the West Indies (USFWS, 2025D). The USFWS identifies Addicks and Barker Reservoir as “situated within the probable migratory pathway between breeding and winter habitats [of the Northern Great Plains population] and contain[ing] sites that could provide stopover habitat during migration.

The Rufa Red Knot (*Calidris canutus rufa*) is a migratory shorebird listed as threatened wherever found (USFWS, 2025E). Although sightings are rare, the project area is listed as a location where the red knot is “known or believed to occur” and is located within the probable migratory path, between breeding in the Arctic tundra and winter habitats in the southern U.S. and Central and South America. Red knots forage along sandy beaches and mud flats, and this species may use the study area for temporary stopover and foraging.

The Texas Fawnsfoot mussel (*Truncilla macrodon*) is freshwater mussel that can grow up to 2.5 inches in length and is listed by the USFWS as Threatened wherever it found (USFWS, 2025F). It has a dull green, tan, or yellow brown shell with inverted chevrons. The mussel is endemic to Texas and is now to occur in the Colorado, Brazos, and Trinity River basin. It is known to inhabit flowing medium to large-sized streams with a mud, sand, or gravel substrate.

The Texas prairie dawn flower (Hymenoxys texana) is an Endangered, extremely rare annual wildflower that is endemic to the Texas Coastal Plains of Harris and Ft. Bend Counties. This petite, single to multi-stemmed member of the sunflower family bears 6-millimeter-tall yellow flower heads in late February to early April. Basal leaves are spoon-shaped, with entire or toothed margins. Stem leaves are alternate, narrow with parallel sides and have no, to few, teeth on margins. Seeds are cone-shaped and mature in April and May. The plants occur in small patches dispersed among sparsely vegetated areas, known as slick spots, on slightly saline soils at the base of *pimple* or *mima* mounds or within almost barren areas in open grasslands. The flower is adapted to these saline conditions but is outcompeted by other vegetation where soils exhibit lower salt levels.

The USFWS lists the tricolored bat (*Perimyotis subflavus*) as proposed endangered (USFWS, 2022K), within the Addicks and Barker Reservoirs fee boundaries as a location where the species may occur. Tricolored bats seasonally migrate between winter hibernacula and summer nursery sites. Roosting may take place in tree cavities, caves, mines, rock crevices, piles of dead leaves, under dead and live leaves, and buildings. Tricolored bats forage along the edge of forests and across waterways near roosting and hibernating sites. They emerge at dusk and feed on various insect species from over water and tops of trees.

The Whooping Crane (*Grus americana*) is listed as endanger bird wherever found. This is a large bird with a wingspan more than 7 feet and stands about 5 feet tall. Their plumage is mostly white with exceptions of their crown being a crimson red, and black legs. Their diet consists of insects, frogs, rodents, small birds, fish, and berries. Winters along the Gulf Coast and breeds in Canada. On wintering grounds in Texas, they use estuarine marshes, shallow bays, and tidal flats, sometimes using nearby farms. Salt grass, saltwort, smooth cordgrass, glasswort, and sea oxeye dominate marshes, with Gulf cordgrass on the margins.

2.8.4 Invasive Species

An invasive species is defined as a plant or animal that is non-native (or native nuisance) to an ecosystem and whose introduction causes, or is likely to cause, economic and/or environmental harm, or harm to human health. Invasive species can thrive in areas beyond their normal range of dispersal. These species are characteristically adaptable, aggressive, and have high reproductive capacity. Their vigor, along with a lack of natural enemies or controls, often leads to outbreak populations with some level of negative effects on native plants, animals, and ecosystem functions and are often associated with disturbed ecosystems and human activities.

Table 2.4 lists many of the invasive and noxious native species found at Addicks and Barker Reservoirs. Other species are currently being researched for their invasive characteristics.

Table 2.4 Invasive and Noxious Native Species
Found at Addicks and Barker Reservoirs

Common Name	Scientific Name	Native/ Non-native
Birds		
Black Vulture	*Coragyps atratus*	Native
Cowbirds	*Molothrus ater*	Native
Mammals		
Wild Boar	*Sus scrofa*	Non-native
Nutria	*Myocaster coypus*	Non-native
Insects		
Red Imported Fire Ant	*Solenopsis invicta*	Non-native

Common Name	Scientific Name	Native/ Non-native
Plants		
Johnson Grass	*Sorghum halepense*	Non-native
Multiflora Rose	*Rosa multiflora*	Non-native
Musk Thistle	*Carduus nutans*	Non-native
Common Reed	*Phragmites australis*	Non-native
Amphibians		
None	None	None
Mollusks		
Zebra Mussel	*Dreissena polymorphs*	Non-native
Channeled Apple Snail	*Pomacea canaliculate*	Non-native
Fish		
Tilapia	None	Non-native
Suckermouthed Armored Catfish	Pomacea polymorhs	Non-native
Vegetation		
Chinese Tallow	Triadica sebifera	Non-native
Chinaberry	Melia azedarach	Non-native
Chinese Privet	Ligustrum sinense	Non-native
Golden Bamboo	Phyllostachys aurea	Non-native

Because of the reservoirs relative location within a metropolitan area, invasive species could be more prevalent. The urban location of the reservoirs could have an increase of inadvertent release and spread of common landscape plants that could become aggressive colonizers from nearby residential developments. Invasive species that are present may be confined to the reservoirs since the surrounding area is entirely developed.

2.9 AESTHETIC RESOURCES

Natural and cultural features that give the project area landscape its character include topographic features, existing structures, and vegetation. While aesthetics are most often thought of as a visual resource, the aesthetic integrity of an area is heavily influenced by both audible and olfactory impacts. The natural aesthetic quality of the reservoirs serves as contrast to the visual character of the adjacent developed areas. Within the reservoirs, and especially along roads, the view of mixed forested and grassland areas is periodically interrupted by buildings, recreational developments, and ball fields. The reservoirs provide an aesthetic relief relative to the surrounding residential, commercial, industrial, and infrastructure developments by providing green space among dense suburban sprawl. The areas of greatest concern for aesthetics are based on the amount of use and the type of use. Areas that are heavily used by the public (e.g. roadways, parks, and trails) or most highly visible (where the reservoirs are

adjacent to private property) need to retain their aesthetically pleasing qualities. In addition, those areas that are more remote, where people go to enjoy an “outdoor” experience also need to retain their aesthetic qualities. The aesthetic integrity of an area can be seriously compromised when there are sudden, abrupt, and unnatural changes. Examples of aesthetic impacts include, but are not limited to pipelines, electrical utility lines, phone lines, cell towers, relay stations, roadways, waterlines, parking lots, oil and water wells, and buildings.

2.10 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

Cultural resources preservation and management is an equal and integral part of all resource management at USACE-administered operational projects. The term “cultural resources” is a broad term that includes, but is not limited to, historic and prehistoric archaeological sites, deposits, and features; burials and cemeteries; historic and prehistoric districts comprised of groups of structures or sites; cultural landscapes; built environment resources such as buildings, structures (such as bridges), and objects; traditional cultural properties; and sacred sites. These property types may be listed on the National Register of Historic Places (NRHP) if they meet the criteria specified by the NRHP (36 CFR 60), reflecting significance in architecture, history, archaeology, engineering, and culture. Cultural resources that are identified as eligible for listing in the NRHP are referred to as “historic properties,” regardless of category. A Traditional Cultural Property (TCP) is a property that is eligible for inclusion in the NRHP based on its associations with the cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. Ceremonies, hunting practices, plant-gathering, and social practices which are part of a culture’s traditional lifeways, are also cultural resources.

Stewardship of cultural resources on USACE Civil Works water resources projects is an important part of the overall Federal responsibility. Numerous laws pertaining to identification, evaluation, and protection of cultural resources, Native American Indian rights, curation and collections management, and the protection of resources from looting and vandalism, establish the importance of cultural resources to our Nation’s heritage. With the passage of these laws, the historical intent of U.S. Congress has been to ensure that the Federal government protects cultural resources. Additionally, as stewards of cultural resources and in compliance with federal laws, it is incumbent upon the USACE to consult with the State Historic Preservation Officer (SHPO), Tribal Nations, the Advisory Council on Historic Preservation (ACHP), and other interested stakeholders in the preservation and management of cultural resources.

Guidance is derived from a number of cultural resources laws and regulations, including but not limited to Sections 106 and 110 (54 U.S.C. 306101-306114) of the National Historic Preservation Act (NHPA) of 1966 (as amended); Archaeological Resources Protection Act (ARPA) of 1979; Native American Graves Protection and Repatriation Act (NAGPRA); and 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections. Implementing regulations for Section 106 of the NHPA and NAGPRA are 36 CFR Part 800 and 43 CFR Part 10, respectively. All cultural

resources laws and regulations should be addressed under the requirements of the National Environmental Policy Act (NEPA) of 1969 (as amended), as applicable. USACE summarizes the guidance provided in these laws in ER and EP 1130-2-540.

Summary of Resources and Previous Investigations

Cultural resources within Addicks and Barker Reservoirs include a record of occupations by indigenous populations from as early as the Paleoindian Period (ca. 12,000 BP), colonial Europeans, and early Texans. This history is generally divided into pre-contact (prior to Native American contact with Europeans) and post-contact (after Native American contact with Europeans) frameworks that are further subdivided into more specific time periods based on technological variation, settlement patterns, land use, and subsistence and consist of (Ensor 1990; Costa and Gilmer 2018; Ricklis 2004):

- *Paleoindian Period (12,000 to 9,000 BP)*
- *Early Archaic Period (9,000 to 7,000 BP)*
- *Middle Archaic Period (7,000 to 3,000 BP)*
- *Late Archaic Period (3,000 to 1,600 BP)*
- *Early Ceramic Period (1,850 to 1,150 BP)*
- *Late Ceramic Period (1,150 to 250 BP)*
- *Historic Period (250 BP to present)*

The most prevalent sites in Addicks and Barker Reservoirs are prehistoric open campsites and artifact scatters, with the majority of these occurring on natural, elevated floodplain mounds. The material culture associated with these sites includes projectile points, stone tools, lithic debitage, ceramics, faunal remains, burned rock, and human interments. There are 120 prehistoric archeological sites, including 72 in Addicks Reservoir and 48 in Barker Reservoir. Of these 120 sites, only Site 41HR184 has been determined eligible for inclusion in the NRHP and three sites, Sites 41HR181, 41HR185, and 41HR436, have been determined not eligible. The remining 116 sites have undetermined eligibility for inclusion in the NRHP. However, 63 of these undetermined sites have been recommended for NRHP eligibility testing. Notable prehistoric sites in the reservoirs include the South Marsh Sites (41FB76 and 41FB78), North Marsh Site (41FB79), Lunch Mound Site (41HR557), Bayou Bend Site (41HR553), Kobs Site (41HR7), Dead Mosquito Site (41FB80), and 41HR184.

Historic settlement in the region began in the 18th and early 19th centuries but was sparsely scattered. Permanent settlement in Addicks Reservoir did not occur until the 1840s with the building of farmsteads by German settlers along Langham, Bear, and S. Mayde Creeks, which eventually coalesced into the Bear Creek Community. Barker Reservoir was not settled until the 1880s when it was primarily used for ranching, rice farming, cotton farming, and dairy. The Texas Western Railroad and the Houston-San Felipe Road both traversed the Barker Reservoir. There are 28 historic age sites recorded in Addicks Reservoir and 26 in Barker Reservoir. Of these 54 sites, the Texas Western Railroad is the only site that has been determined eligible for inclusion in the

NRHP. Fifteen sites have been recommended for NRHP eligibility testing, and one site has been determined not eligible. The remaining 37 sites have an undetermined eligibility status. Notable historic sites in the reservoirs include the Kobs Farmstead, Cinco Ranch Headquarters, Marks Rodeo Ground and BBQ Pit, Kock-Ankele House Site, Striepe-Marks House Site, Christian Meyer Farmstead, Richardson Place, Koch-Matzke House Site, and the Fritz and Dorothea Kobs Farmstead. By the middle of the 20th century all settlements were displaced by the construction of the reservoirs.

There have been 108 previous cultural resources investigations within Addicks and Barker Reservoirs beginning in the 1940s. The earliest investigation in the project area was conducted by Joe Ben Wheat in the late 1940s during the construction of Addicks Dam as part of the River Basins Survey of the Bureau of American Ethnology (Wheat 1953). Wheat (1953) identified and tested three sites on Buffalo Bayou, three along South Mayde Creek, and three on Langham Creek. In the 1970s and 1980s, numerous sites were recorded in the area by Leland Patterson and the Houston Archeological Society, but did not include subsurface testing. The only comprehensive surveys of the two reservoirs were conducted in the 1980s including a 3,943-acre survey of Addicks Reservoir by Prewitt and Associates (Fields et al. 1983), a 4,415-acre survey of Barker Reservoir by Prewitt and Associates (Fields et al. 1986), and an approximately 1,300-acre survey of Barker Reservoir by Texas A&M University (Ensor et al. 1983). In depth investigations within the project area have included the excavation of four sites (41FB70, 41FB71, 41FB72, and 41FB119) by Texas A&M University in Barker Reservoir (Ensor 1987) and testing and data recovery of Site 41HR184 by Moore Archeological Consulting Inc. (Costa and Gilmer 2018) below the Addicks Dam. As a result of the previous investigations, a total of 174 archeological sites have been identified within the Addicks and Barker Reservoirs project area. Seven historic age cemeteries, Baker Cemetery, Otte Family Cemetery, Kock Cemetery, Addicks Bear Creek Cemetery, Hillendahl-Eggling Cemetery, Koch-Schmidt Cemetery, and an unknown grave, are also located within the project area.

Long-Term Cultural Resource Objectives

There are several cultural and environmental formation processes that have affected cultural resources within the Addicks and Barker Reservoirs project. Historical impacts have included the inundation, land clearing, construction of transportation infrastructure, and the development of farm and ranch land, all of which have a potential to displace archeological sites. The construction of the reservoirs has had the largest impact on cultural resources, especially to historic age buildings and structures. Looting has had an impact on both prehistoric and historic sites at the reservoirs and these activities are exacerbated by increased public access. The primary ongoing threat to cultural resources within the reservoirs is erosion resulting from surface runoff, periodic inundation, and recreation. Other threats to cultural resources could include impacts from facility construction and maintenance activities and activities related to land leasing.

The USACE has an abundance of cultural resources data for the Addicks and Barker Reservoirs but lacks a robust synthesis of these data and has not developed a comprehensive Integrated Cultural Resources Management Plan (ICRMP) for the

reservoirs. Furthermore, while significant investigations and research have been conducted in the project area, many of the federal investigations occurred prior to statutorily required consultation with Tribal Nations. It is recommended that the USACE develop a comprehensive ICRMP in consultation with the Texas SHPO, Native American Tribes, and other stakeholders to synthesize the existing data, address the effects of cultural and environmental processes on cultural resources and recommendations for managing these impacts, and outline procedures for management of these resources during construction and operations activities. Until an ICRMP is developed, future activities that have a potential to affect cultural resources should look to the 2009 Master Plan and consult with the district archeologist for guidance. Finally, any future activities that have a potential to affect cultural resources must comply with Section 106 and 110 of the NHPA, NAGPRA, and ARPA.

2.11 DEMOGRAPHICS AND ECONOMIC RESOURCES

2.11.1 Zone of Interest

Addicks and Barker Dams are in Harris County, Texas with Barker also being in Fort Bend County. They are located about 10 miles west of downtown Houston along Buffalo Bayou. The zone of interest for the socio-economic analysis includes Fort Bend County and Harris County within the state of Texas (Table 2.5).

Table 2.5 Zone of Interest Counties

Zone of Interest Counties
Fort Bend County, TX
Harris County, TX

2.11.2 Population

The total population in the zone of interest in 2023 was 5,618,300 (Table 2.6). Approximately 85% of the zone of interest's population resides in Harris County and 15% reside in Fort Bend County.

Table 2.6 Population Estimates, and Projections (2010, 2020, 2023)

Geographical Area	2010	2020	2023 Population Estimate	2030 Population Projection Estimates
United States	308,745,538	331,449,281	332,387,540	
Texas	25,145,561	29,145,505	29,640,343	33,913,233
Fort Bend County, TX	585,375	881,966	859,721	1,095,123
Harris County, TX	4,092,459	4,707,870	4,758,579	5,058,144

Geographical Area	2010	2020	2023 Population Estimate	2030 Population Projection Estimates
Zone of Interest Total	**4,677,834**	**5,589,836**	**5,618,300**	**6,153,267**

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year (2019-2023), U.S. Census Bureau, 2010, 2020 Texas Water Development Board 2030.

From 2023 to 2050, the population in the zone of interest is expected to increase by 26.38% from 5,618,300 to 7,100,175, an average annual growth rate of 0.91%. The forecasted population of Texas is expected to increase by 42.69%. Both Fort Bend County (65.39%) and Harris County (19.33%) are expected to grow. Population for the years 2010 and 2020 are included for historical reference.

The distribution of the population by gender (Table 2.7) approximately 50% male and 50% female. Table 2.7 shows the population by age group for Texas, and the entire zone of interest. The zone of interest is consistent by age group when compared to the entire state.

Table 2.7 Population Estimates by Gender

Geographical Area	Male	Female
United States	164,545,087	167,842,453
Texas	14,789,987	14,850,356
Fort Bend County, TX	423,591	436,130
Harris County, TX	2,366,425	2,392,154
Zone of Interest Total	**2,790,016**	**2,828,284**

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year (2019-2023)

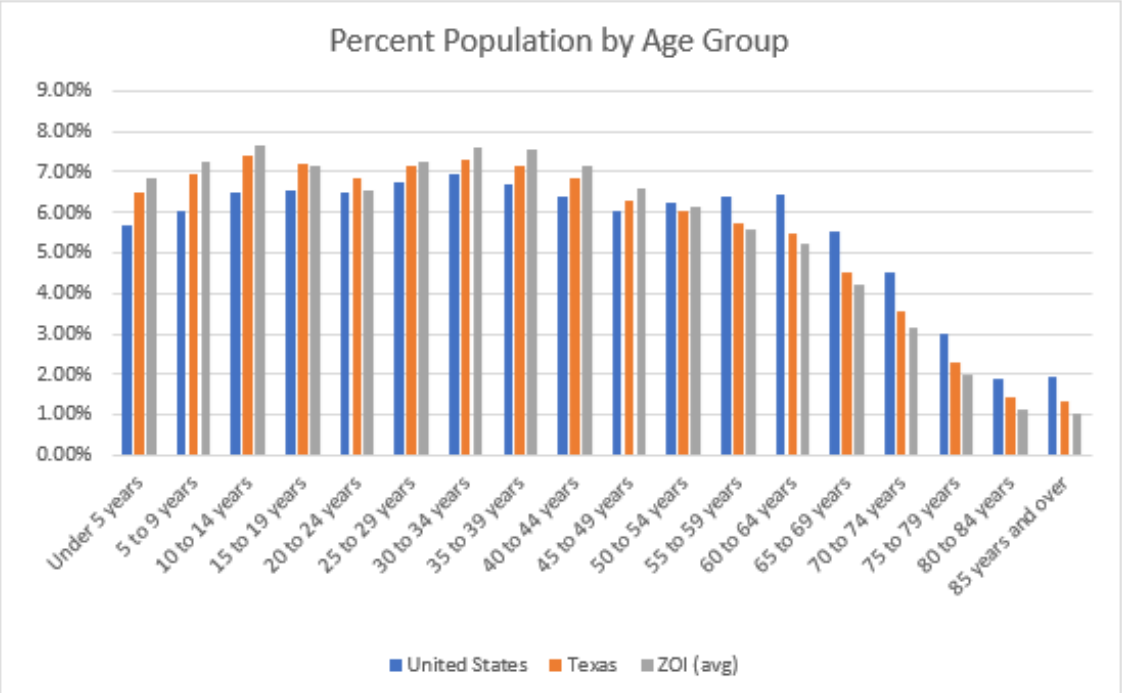


Figure 2.8 2023 Percent Population by Age Group

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates (2019-2023)

Population by race and Hispanic Origin is displayed in Table 2.8. The zone of interest is approximately 28% White, 29% Hispanic or Latino, 6.7% Asian, 13.8% Black, 8.6% some other race, and 13% two or more races. The other race categories each account for less than 1%. By comparison, the population in the state of Texas is 39% White, 28% Hispanic or Latino, 8.8% Black, 0.46% American Indian or Alaskan Native, 3.8% Asian, 0.07% Native Hawaiian/Other Pacific, 6.2% Some Other Race, and 13.8% Two or More Races.

Table 2.8 2023 Population Estimate by Race/Hispanic Origin

Area	White	Hispanic or Latino	Black	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Two or more races
Texas	15,984,990	11,697,134	3,626,137	190,706	1,581,798	29,841	2,540,808	5,686,063
Fort Bend County, TX	318,338	210,272	176,568	3,248	187,639	403	55,288	118,237
Harris County, TX	1,910,341	2,065,668	909,089	40,420	343,379	3,898	621,788	929,664
Zone of Interest	**2,228,679**	**2,275,940**	**1,085,657**	**43,668**	**531,018**	**4,301**	**677,076**	**1,047,901**

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year (2019-2023)

2.11.3 Education and Employment

Table 2.9 displays the highest level of education attained by the population ages 25 and over. In the zone of interest, 9.3% of the population have less than a 9th grade education; another 6.7% have between a 9th and 12th grade education; 21.9% have at least a high school diploma or equivalent; 18.6% have some college education; 7.3% have an associate degree; 22.3% have a bachelor's degree; and 13.8% have a graduate or professional degree.

In Texas, 7.3% of the population have less than a 9th grade education; another 7.0% have between a 9th and 12th grade education; 24.3% have at least a high school diploma or equivalent; 20.6% have some college education; 7.8% have an associate degree; 21.1% have a bachelor's degree; and 11.9% have a graduate or professional degree.

Table 2.9 2023 Population Estimate by Highest Level of Educational Attainment, Population 25 Years of Age and Older

Area	Population 25 years and over	Less than 9th grade	9th to 12th grade, no diploma	High school graduate (includes equivalency)	Some college, no degree	Associate's degree	Bachelor s degree	Graduate or professional degree
Texas	19,294,631	1,414,661	1,345,062	4,691,708	3,966,494	1,494,735	4,078,930	2,303,041
Fort Bend County, TX	556,652	24,023	20,886	97,943	98,469	40,947	164,356	110,028
Harris County, TX	3,073,858	314,190	224,309	698,362	577,470	222,206	645,298	392,023
Zone of Interest	**3,630,510**	**338,213**	**245,195**	**796,305**	**675,939**	**263,153**	**809,654**	**502,051**

Source: U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates (2023 Estimate)

Employment by sector is presented in Figure 2.9 and Table 2.10. Figure 2.9 shows that the largest percentage of the zone of interest is employed in the educational services, and health care and social assistance sector at 20.7%. Construction employs 9.7%, 9.1% of the population works in Manufacturing, 10.6% work in Retail trade, 13.9% in Professional, scientific, and management, and administrative and waste management services, 8.3% work in Arts, entertainment, and recreation, and accommodation and food services, 6.2% work in Finance and insurance, and real estate and rental and leasing, 7.0% work in Transportation and warehousing, and utilities. The remainder of the employment sectors each comprise less than 6% of the zone of interest's labor force.

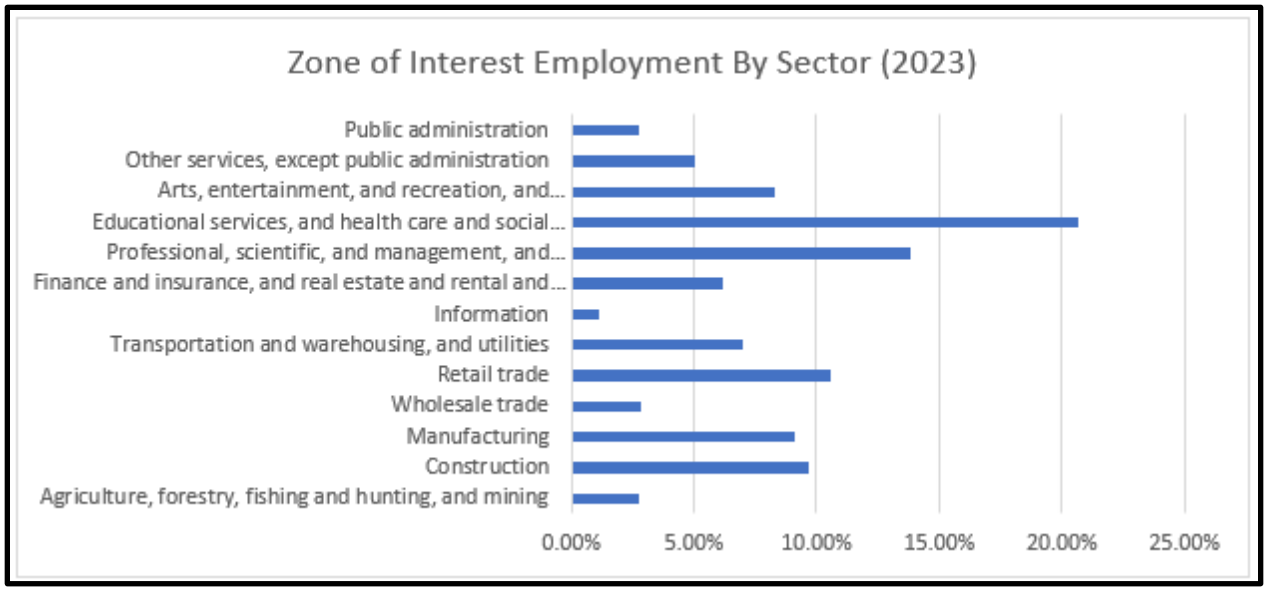


Figure 2.9 Zone of Interest Employment by Sector (2023)

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates (2019-2023)

Table 2.10 Annual Average Employment by Sector (2023)

Employment Sector	United States	Texas	Fort Bend County, TX	Harris County, TX
Civilian employed population 16 years and over	159,808,535	14,140,748	415,651	2,305,791
Agriculture, forestry, fishing and hunting, and mining	2,552,148	344,777	16,334	58,367
Construction	11,064,175	1,222,119	26,038	238,430
Manufacturing	15,912,421	1,205,356	36,938	209,870
Wholesale trade	3,678,210	352,755	11,947	66,315
Retail trade	17,368,629	1,568,595	43,154	245,251
Transportation and warehousing, and utilities	9,373,191	925,629	24,457	165,734
Information	2,998,298	226,893	5,694	25,779
Finance and insurance, and real estate and rental and leasing	10,673,893	986,535	30,094	138,794

Employment Sector	United States	Texas	Fort Bend County, TX	Harris County, TX
Professional, scientific, and management, and administrative and waste management services	19,763,960	1,774,719	59,896	317,003
Educational services, and health care and social assistance	37,381,621	3,055,393	102,048	460,695
Arts, entertainment, and recreation, and accommodation and food services	14,010,750	1,200,410	27,702	197,430
Other services, except public administration	7,514,289	695,175	18,718	119,235
Public administration	7,516,950	582,392	12,631	62,888

Source: U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates (2023 Estimates

A summary of the civilian labor force in the zone of interest is displayed in Table 2.11. In 2023, the zone of interest had an unemployment rate of 5.7%, higher than the unemployment rate of Texas (5.1%) and higher than the rate nationwide (5.2%).

Table 2.11 Labor Force, Employment and Unemployment Rates, 2023 Annual Averages

Geographic Area	Civilian Labor Force	Number Employed	Number Unemployed	Unemployment Rate
United States	168,567,852	159,808,535	8,759,317	5.2%
Texas	14,906,660	14,140,748	765,912	5.1%
Fort Bend County, TX	437,538	415,651	21,887	5.0%
Harris County, TX	2,464,059	2,305,791	158,268	6.4%
Zone of Interest	**2,901,597**	**2,721,442**	**180,155**	**5.7%**

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year (2019-2023) (2023 averages)

2.11.4 Households, Income, and Poverty

Table 2.12 displays the number of households and average household sizes in the state and zone of interest. There were approximately 2,009,362 households in the zone of interest with an average household size of 2.9.

Table 2.12 Households and Average Household Size

Geographic Area	Total Households	Average Household Size
United States	127,482,865	2.5
Texas	10,747,240	2.7
Fort Bend County, TX	281,259	3.0
Harris County, TX	1,728,103	2.7
Zone of Interest	**2,009,362**	**2.9**

Source: U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates (2023 Estimate)

The median household income in the zone of interest ranged from $73,104 in Harris County, TX to $113,409 in Fort Bend County, TX in 2023, as displayed in Table 2.13. Per capita income in the zone of interest was $43,336 in 2023, higher than the per capita income of the state of Texas ($39,446) and the United States ($43,289).

Table 2.13 2021 Median and Per Capita Income (Inflation Adjusted)

Geographic Area	Median Household Income (All)	Per Capita Income
United States	$78,538	$43,289
Texas	$76,292	$39,446
Fort Bend County, TX	$113,409	$46,693
Harris County, TX	$73,104	$39,978
Zone of Interest	**$93,257**	**$43,336**

Source: U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates (2023 Estimate)

Table 2.14 displays the percentage of persons and families whose incomes fell below the poverty level in the past twelve months as of 2023. Within the zone of interest, Harris County had the greatest share of people with incomes below the poverty level at 15.9%, followed by Fort Bend County at 7.2%. In terms of families below the poverty level, Fort Bend County has the lowest percentage with 5.9% and Harris County has the highest with 12.8%.

Table 2.14 Percent of Families and People Whose Income in the Past 12 Months is Below the Poverty Level (2023)

Geographic Area	All Families	All People
United States	12.40%	8.70%
Texas	13.80%	10.50%
Fort Bend County, TX	7.20%	5.90%
Harris County, TX	15.90%	12.80%
Zone of Interest	**10.70%**	**7.60%**

Source: U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates (2019-2023)

2.12 RECREATION FACILITIES, ACTIVITIES, AND NEEDS

2.12.1 Visitation Profile

Addicks and Barker visitors are a diverse group that includes residents of the immediate area, hunters, trail users, and day users who picnic, observe wildlife, use the sports fields, and sightsee. The peak visitation months are in the spring and fall, with Mar-Apr in the spring, and Sep-Oct in the fall typically being the highest visitation months. At Addicks and Barker, the lease holder maintains traffic counters at locations where the majority of visitation occurs. These locations generally include developed park areas and minor access points.

Table 2.15 provides total visitation by year for FY2018-2022. Visitation numbers are impacted by several factors including counting methodology, flooding, drought, COVID-19, and other environmental factors. Average overall visitation during the reporting period is just under 2 million visitors per year with 2020 (COVID year) being the peak at over 2.3 million visitors.

Table 2.15 Addicks and Barker Reservoirs Total Visitation FY2018-2022

	2018	2019	2020	2021	2022
TOTAL VISITATION	1,160,892	2,149,756	2,306,535	2,064,788	2,039,098

Source: USACE VERS (Visitation Estimation & Reporting System, 2018-2022)

2.12.2 Recreation Areas and Facilities

Recreational developments at Addicks and Barker Reservoirs offer a wide variety of activities designed to accommodate local and regional needs through day use facilities. There are three major recreational developments on the reservoirs: Bear Creek Pioneers Park and Cullen Park on Addicks Reservoir and George Bush Park on Barker Reservoir. Bear Creek Pioneers Park and George Bush Park are managed by Harris County Precinct 4 and Cullen Park is managed by the City of Houston. Cinco

Ranch Park is also located at Barker Reservoir and is managed by Fort Bend County. Park and recreation areas within the reservoirs include sports fields, shooting ranges, model airplane fields, paved trails, playgrounds, community centers, golf courses, a community zoo, a war memorial, exercise circuits, numerous picnic facilities and pavilions, a farm and ranch club rodeo arena, equestrian trails, two dog parks, ponds, and a velodrome.

Of great importance to the reservoir's zone of interest are the existing and future recreational opportunities. Table 2.16 lists the various recreational facilities at Addicks and Barker Reservoirs. Each recreation area is more specifically described in Chapter 5.

Table 2.16 Recreation Facilities at Addicks and Barker Reservoirs

Recreation Area	Managed	Showers	Picnic Areas	Playground	Trails
Addicks Dam & Visitor Area	O				B M
Barker Dam & Visitor Area	U		A		B Q H
Bear Creek Pioneer Park – Addicks	O		A GS	X	B Q H I
Bill Archer Park - Addicks	O		GS		M
Cinco Ranch Park - Barker	O	X		X	H
Cullen Park – Addicks	O		A GS	X	B H
George Bush Park - Barker	O	X	A GS	X	Q H

		Picnic		Trails	
U	USACE Managed	A	Picnic Area	H	Hiking Trails
O	Managed by Others	G	Group Picnic	I	Hiking Trails-Interpretive
X	Exists at Reservoir	GS	Group Picnic Shelter	B	Bike Trails
				M	Multipurpose Trails
				Q	Equestrian Trails

Source: USACE Corps Lakes Gateway

Trails

Addicks and Barker Reservoirs provides visitors with many miles of scenic trails with unlimited the opportunities for walking-hiking based recreation as well as horse riding trails.

Dogs

Dogs and their owners enjoy the Bill Archer Dog Park at Addicks Reservoir as well as the Millie Bush Dog Park located in George Bush Park at Barker Reservoir.

Sports Facilities

Parks at Addicks and Barker offer a wealth of recreational facilities including tennis and bocce ball courts, pickleball courts, and soccer, football, baseball, and softball fields.

Archery/Shooting

There are two ranges located in the reservoirs; Buffalo Archery range is located in Addicks Reservoir and the American Shooting Centers is located in Barker Reservoir in George Bush Park.

Fishing

Fishing lures city folk to the reservoir waters. Visitors can sit back and enjoy a relaxing moment on the banks of Buffalo Bayou and expect to catch perch, channel catfish, and carp.

Model Airplane Facility

Dick Scobee Field, George Bush Park, is the premier facility for model airplane flyers, enthusiasts and builders in the Houston area. It is also home to the Bayou City Flyers Club.

Picnicking

Picnic areas are maintained at the various park facilities and provide tables and charcoal grills, at choice locations for the public. In addition, picnic shelters are provided along with picnic tables and grills at Bear Creek, George Bush, and Cullen parks.

Wildlife Habitat/Aviary

Bear Creek Park offers visitors a chance to view and learn about various wildlife.

2.12.3 Recreation Analysis

The 2018 Texas Outdoor Recreation Plan (TORP) published by TPWD is a comprehensive recreational demand study that evaluates recreation trends and needs across Texas and in subdivided regions. Some of the information in the TORP was extracted from the National Survey on Recreation and the Environment (NSRE) and reports generated by the USFWS. Much of the data in the TORP was from a survey

conducted in 2017 titled Texas Residents' Participation in and Attitudes Toward Outdoor Recreation by Responsive Management (Survey) on behalf of TPWD. Addicks and Barker Reservoirs provide many recreation opportunities that help to meet the recreation needs identified in the TORP.

The TORP indicated the rates of participation for various outdoor activities in Texas, with Harris and Fort Bend Counties, and Addicks and Barker Reservoirs located in TORP Region 4. Across the entire state and in Region 4, walking for pleasure is the most popular outdoor activity, while the next most popular being picnicking, cookouts, and other gatherings. The top ten areas of participation for outdoor recreation are indicated in Figure 2.10.

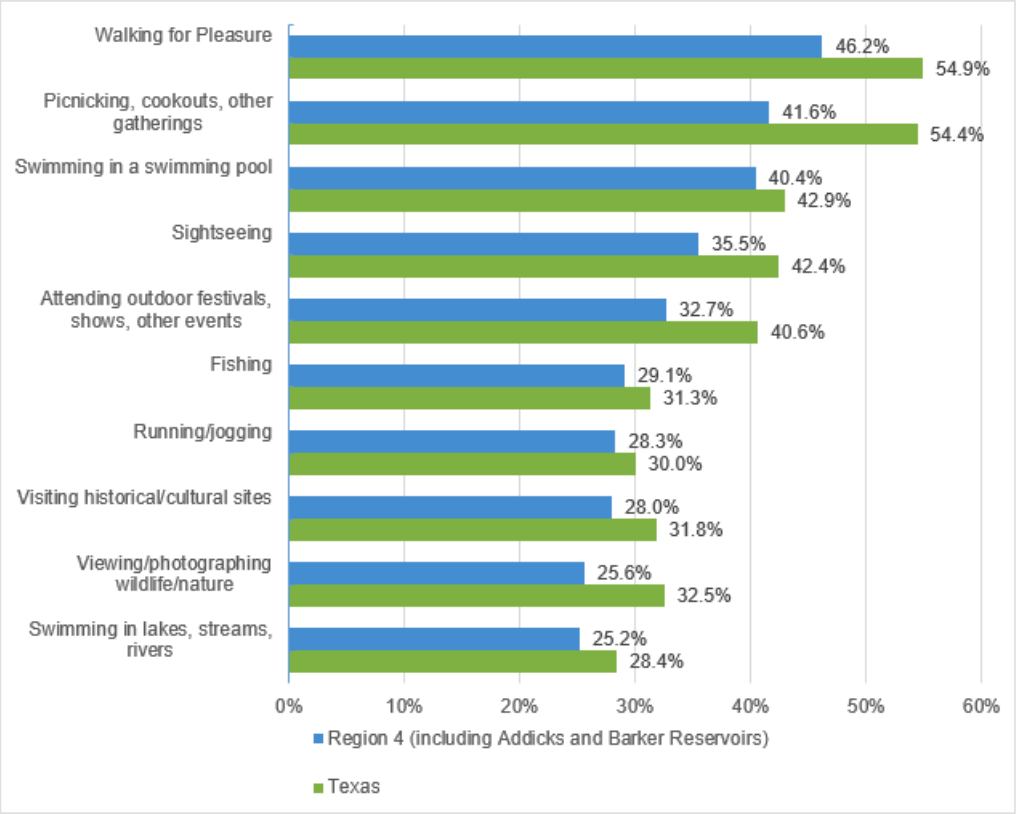


Figure 2.10 Top 10 Areas of Participation for Outdoor Recreation Activities
Source: TPWD TORP 2018

When asked "which outdoor recreation opportunities does your community currently lack or would like to see more of in your community," the top answer across the state was trails/places to hike/bike, and the next highest response was pools/swimming facilities (other than lakes). In Region 4, the second highest response was more parks/more park capacity. The top ten responses are indicated in Figure 2.11.

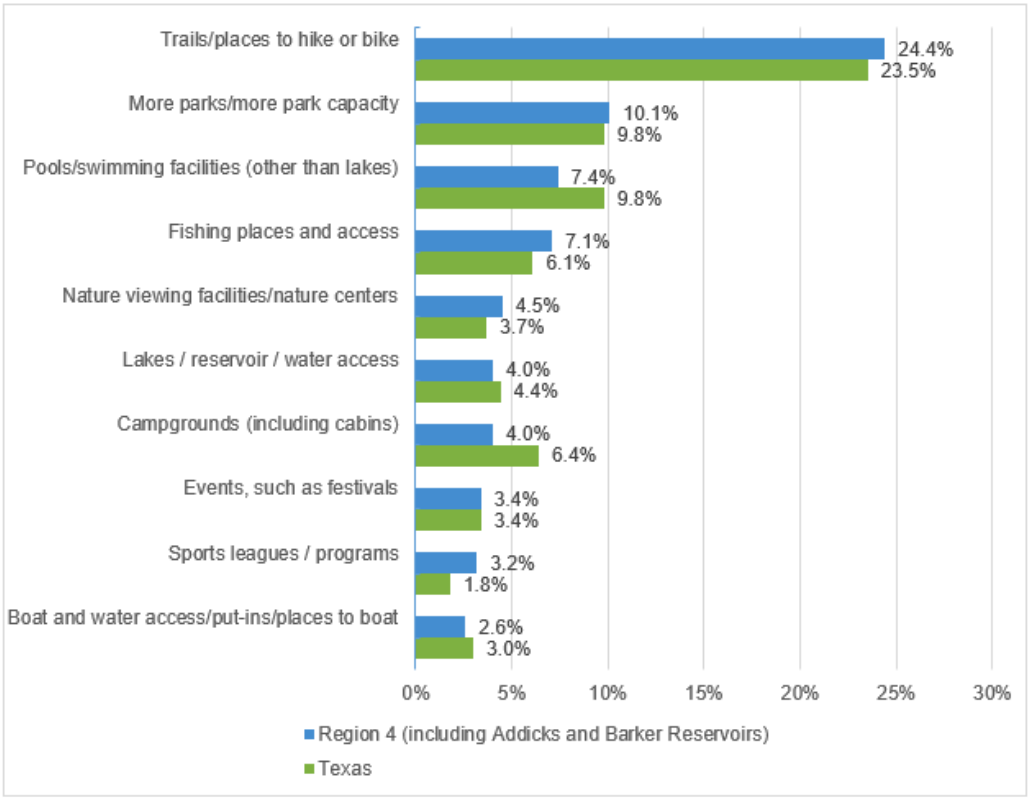


Figure 2.11 Top 10 Requested Outdoor Rec Opportunities
Source: TPWD TORP 2018

Additional findings from the Survey found that 34 percent of Texas residents and 34 percent of Region 4 residents have visited a state park during the past 12 months. Furthermore, 58 percent of Texas residents and 56 percent of Region 4 residents have visited a local park in the past 12 months (local park was defined as 30 minutes from respondents' home and not a state or national park). Within Region 4, 58 percent of survey respondents have visited a local park at least 5 times in the last 12 months, while 58 percent have visited a local park at least once in the past 12 months. Asked "which features, or facilities do your local parks currently lack, or would you like to see more of at your local parks," the overwhelming response was more restroom facilities at 28.0 percent across Region 4 and 20.5 percent across Texas. The top ten responses to that survey question are indicated in Figure 2.12.

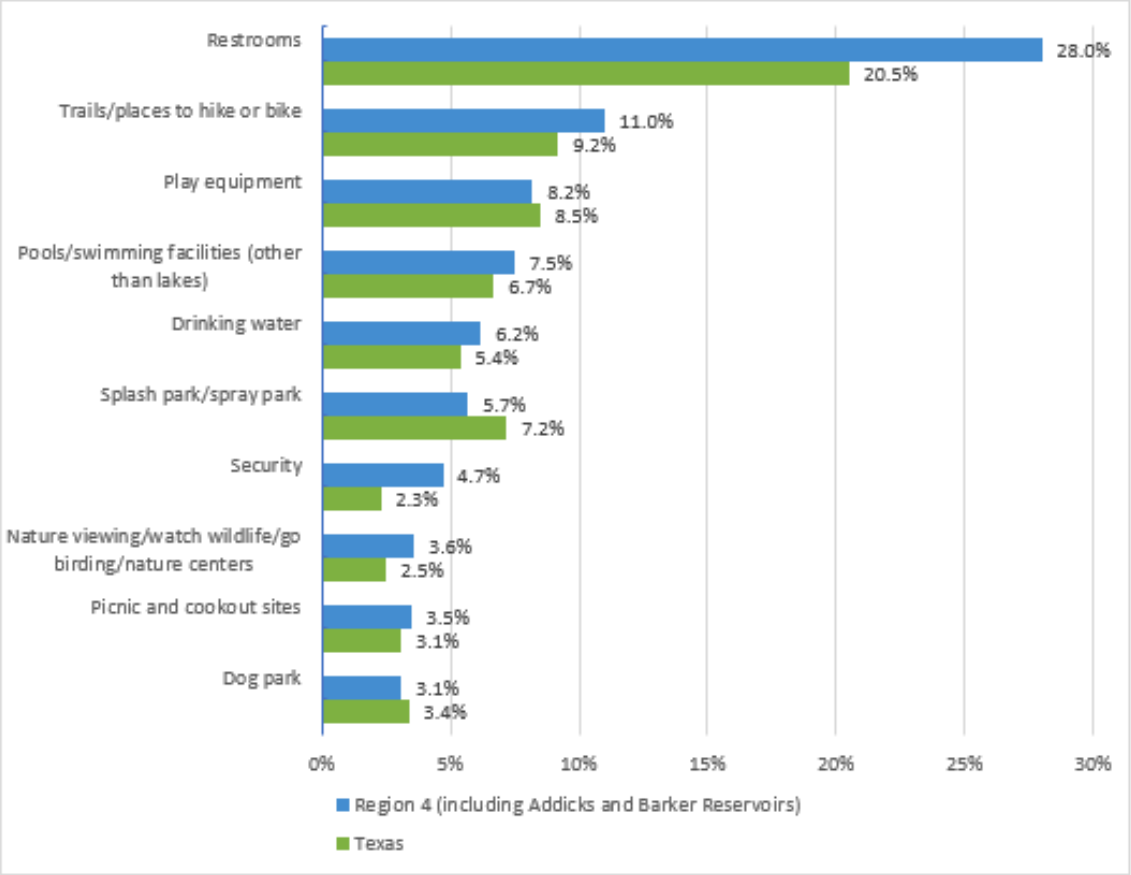


Figure 2.12 Top 10 Requested Features at Local Parks
Source: TPWD TORP 2018

In accordance with historical visitation rates and recent outdoor recreation trends documented in the 2012 and 2018 TORP, camping in developed and primitive settings has declined significantly since 2000. In contrast, the TORP documented an increase in demand for day trip activities including hiking/walking for pleasure; picnicking, cookouts, or other gatherings; sightseeing; swimming in pools; attending outdoor festivals, shows, or events; and viewing/photographing wildlife/nature. The recreation activity most people say their community lacks is hiking/biking trails, more park capacity, swimming pool facilities and fishing places and access; with the demand for fishing places and access being much higher in the Region 4 than the entire state. In response to trends documented in the TORP, the USACE will endeavor to improve fishing places and access and to develop trails in or adjacent to park areas as funding permits. The USACE encourages partnerships with agencies who lease and manage parks to respond to increasing demands and build on the current quality of USACE parks for present and future visitors. Comments from the public mirrored the demand published in the TORP, as there were many comments from the public showing interest in additional trails at lakes, including paddle trails.

2.12.4 Recreation Carrying Capacity

The plan formulated herein proposes to provide a variety of activities and to encourage optimal, safe use of present public use areas without causing irreparable harm to natural resources. The carrying capacity of the land is determined primarily by the distinct characteristics of the site including but not limited to soil type, steepness of topography and available moisture. These characteristics, both natural and manmade, are development constraints that often determine the type and number of facilities that should be provided.

No recreation carrying capacity studies have been conducted at Addicks and Barker Reservoirs. Presently, all recreation areas are managed by other agencies at both reservoirs. Current management of recreation areas uses historic visitation data combined with best professional judgment to address recreation areas, considered to be overcrowded, overused, underused, or well balanced. The USACE will continue to work with the City of Houston, Harris and Fort Bend Counties to identify possible causes and effects of overcrowding and overuse and apply appropriate best management practices including site management, regulating visitor behavior, and modifying visitor behavior as needed.

2.13 REAL ESTATE

The total project area at Addicks and Barker encompasses 25,049 acres acquired in fee simple title by USACE. In addition to the area acquired in fee simple title, USACE acquired a perpetual flowage easement on 131 acres. These are the official acres recorded in Real Estate records and may differ from those in other parts of this Master Plan due to better measurement technology.

Purchase of perpetual flowage easement by the Government constitutes payment for the right to flood and for the damage and expense to the landowner resulting from project operation. Construction of buildings or facilities for human habitation, or alteration of the existing terrain to the extent that storage of flood water is reduced, will not be permitted on flowage easement lands. Construction of most structures and improvements on flowage easement lands will require formal written authorization from USACE.

Individuals and companies interested in leases to provide services to the public on fee (public) lands should be aware that there are specific restrictions and procedures they must follow. In many cases, individuals or companies will be encouraged to pursue a sublease with an existing lessee. In general, new leases that provide recreational amenities and services require market studies and competitive bidding before an award can be made.

2.13.1 Outgrants

The term “outgrant” is a broad term used by USACE to describe a variety of real estate instruments wherein an interest in real property has been conveyed by USACE to another party. Outgrants at the Project includes leases, licenses, easements, consents,

permits, and others. At present, there are 182 recorded outgrants in effect on USACE lands and 131 acres of flowage easement at Addicks and Barker. The outgrants include the following:

Table 2.17 Outgrants

Type	Addicks	Barker
Lease, Recreation	5	2
Lease, Telecommunication	2	0
Easement	54	91
License	8	8
Permit	1	3
Consent	2	2
ROE	3	0
Other	0	1
Total	**75**	**107**

2.13.2 Trespass and Encroachment

Government property is monitored by USACE personnel to identify and correct instances of unauthorized use, including trespasses and encroachments. The term “trespass” includes unauthorized transient use and occupancy, such as mowing, tree cutting and removal, livestock grazing, cultivation and harvesting crops, and any other alteration to Government property done without the USACE approval. Unauthorized trespasses may result in a Title 36 citation requiring violators to appear in Federal Magistrate Court, which could subject the violator to fines or imprisonment (See 36 C.F.R. Part 327 Rules and Regulations Governing Public Use of Water Resources Development Projects Administered by the Chief of Engineers). More serious trespasses will be referred to the USACE Office of Counsel for enforcement under state and federal law, which may require restoration of the premises and collection of monetary damages.

The term “encroachment” pertains to an unauthorized structure or improvement on Government property. When encroachments are discovered, project personnel will attempt to resolve the issue at the project level. Where no resolution is reached, or where the encroachment is a permanent structure, the method of resolution will be determined by the USACE Real Estate Division, with recommendations from Operations

Division and Office of Counsel. The USACE's general policy is to require removal of encroachments, restoration of the premises, and collection of appropriate administrative costs and fair market value for the term of the unauthorized use.

The most common trespass are unauthorized mowing and paths, unauthorized structures such as fences and temporary structures, grazing, storage of personal property on USACE lands, and tree and vegetation removal. Trash dumping is an especially difficult and expensive problem at many USACE lakes. Encroachments can be prevented. Identifying the USACE fee boundary line and flowage easement designation are critical elements for the public who are planning for any type of activity near a USACE fee boundary.

CHAPTER 3 – RESOURCE GOALS AND OBJECTIVES

3.1 INTRODUCTION

This chapter sets forth goals and objectives necessary to achieve the USACE vision for the future of the Addicks and Barker Reservoirs. The terms “goals” and “objectives” are often defined as synonymous, but in the context of this Master Plan, goals express the overall desired end state of the cumulative land and recreation management programs at the Project. Resource objectives specify task-oriented actions necessary to achieve the master plan goals. The Master Plan resource objectives will be used as the basis for the OMP, which is the budget-linked, task-oriented 5-year plan that implements the concepts set forth in the Master Plan.

3.2 RESOURCE GOALS

The following statements, taken from EP 1130-2-550, Chapter 3, express the goals for the Addicks and Barker Master Plan:

GOAL A. Provide the best management practices to respond to regional needs, resource capabilities and suitability, and expressed public interests consistent with authorized project purposes.

GOAL B. Protect and manage the project’s natural and cultural resources through sustainable environmental stewardship programs.

GOAL C. Provide public outdoor recreation opportunities that support project purposes and public demands created by the project itself while sustaining the project’s natural resources.

GOAL D. Recognize the particular qualities, characteristics, and potentials of the project.

GOAL E. Provide consistency and compatibility with national objectives and other State and regional goals and programs.

In addition to the above goals, USACE management activities are guided by USACE-wide Environmental Operating Principles (EOPs) as follows:

- Foster sustainability as a way of life throughout the organization.
- Proactively consider environmental consequences of all USACE activities and act accordingly.
- Create mutually supporting economic and environmentally sustainable solutions.
- Continue to meet our corporate responsibility and accountability under the law for activities undertaken by USACE, which may impact human and natural environments.
- Consider the environment in employing a risk management and systems approach throughout the life cycles of projects and programs.
- Leverage scientific, economic and social knowledge to understand the environmental context and effects of USACE actions in a collaborative manner.

- Employ an open, transparent process that respects views of individuals and groups interested in USACE activities.

3.3 RESOURCE OBJECTIVES

Resource objectives are defined as clearly written statements that respond to identified issues and that specify measurable and attainable activities for resource development and/or management of the lands and waters under the jurisdiction of the Galveston District, Houston Project Office. The objectives stated in this Master Plan support the goals of the Master Plan, the USACE Environmental Operating Principles (EOPs), and applicable national performance measures. They are consistent with authorized project purposes, federal laws and directives, regional needs, resource capabilities, and they take public input into consideration. Recreational and natural resources carrying capacities are also accounted for during development of the objectives found in this Master Plan, as well as regional and state planning documents including: Texas Conservation Action Plan– Gulf Coast Prairies and Marshes.

The objectives in this Master Plan are intended to provide project benefits, meet public needs, and foster environmental sustainability for the Project to the greatest extent possible. They include recreational objectives; natural resource management objectives; visitor information; education, and outreach objectives; general management objectives; and cultural objectives, as detailed in Tables 3.1 – 3.5.

Table 3.1 Recreational Objectives

Recreational Objectives	Goals				
	A	B	C	D	E
In cooperation with Harris and Fort Bend Counties as well as TPWD, evaluate the demand for improved recreation facilities and increased public access on USACE-administered public lands for recreational activities (e.g., picnicking, bird watching) and facilities (e.g., campsites, picnic facilities, all types of trails, interpretive signs/exhibits, and parking lots).	*		*		
Monitor the condition and quality of day use facilities within USACE managed and leased areas including but not limited to roads, restrooms, trails, pavilions, and park entrances.	*		*		
Encourage an increase of universally accessible facilities at Addicks and Barker Reservoirs.	*		*		*
Ensure consistency with USACE Natural Resource Management Strategic Plan.					*
Monitor the TCAP and TORP to ensure that USACE is responsive to outdoor recreation trends, public needs, and resource protection within a regional framework. All plans by others will be evaluated considering USACE policy and operational aspects of the Addicks and Barker Reservoirs.					*

*Denotes that the objective helps to meet the specified goal.

Table 3.2 Natural Resource Management Objectives

Natural Resource Management Objectives	Goals				
	A	B	C	D	E
Actively manage and conserve wildlife resources, especially threatened and endangered species and Species of Greatest Conservation Need by implementing ecosystem management principles. Key among these principles is the use of native species adapted to the Level IV Northern Humid Gulf Coast Prairies in restoration and mitigation plans.	*	*		*	*
Manage high density and low density recreation lands in ways that enhance benefits to wildlife.					*
Optimize resources, labor, funds, and partnerships for protection and restoration of wildlife habitats.		*			*
Minimize activities which disturb the scenic beauty and aesthetics of the project.	*	*	*	*	
Ensure that adverse impacts resulting from land use actions, including outgrants, are appropriately mitigated to restore the value of the land to the nation.		*		*	*
Implement prescribed fire as a management tool to promote the vigor and health of the Coastal Plains and Piney Woods Forest, including woodlands and prairie. Efforts will involve interagency	*	*			*

Natural Resource Management Objectives	Goals				
	A	B	C	D	E
cooperation agreements to enhance fire management, coordinate efforts, and shared resources.					
Stop unauthorized uses of public lands such as off-road vehicle (ORV) use, trash dumping, unauthorized fires, fireworks, poaching, clearing of vegetation, agricultural trespass, timber theft, unauthorized trails and paths, and placement of advertising signs that create negative environmental impacts.	*	*	*	*	*
Monitor lands for invasive, non-native, and aggressively spreading native species and take action to prevent and/or reduce the spread of these species. Implement the Invasive Species Strategic Plan (ISSP) in the near future to address the growing concern of invasive species at the project. This approach will help safeguard the environment and maintain the health of native species and ecosystems at Addicks and Barker Reservoirs.	*	*		*	*
Protect and/or restore important native habitats such as grasslands where they occur or historically occurred on project lands. Emphasize actions that promote butterfly and /or pollinator habitat, migratory bird habitat, and habitat for birds listed by USFWS as Birds of Conservation Concern.	*	*		*	*
USACE will continue to work with county, city, local stakeholders to ensure dam safety policies are implemented and effective measures are carried out to prevent unauthorized access or use of the trails.					

*Denotes that the objective helps to meet the specified goal.

Table 3.3 Visitor Information, Education, and Outreach Objectives

Visitor Information, Education, and Outreach Objectives	Goals				
	A	B	C	D	E
Provide more opportunities (e.g., comment cards, updates to local municipalities, web page) for communication with agencies, special interest groups, and the general public. Utilize social media to inform visitors.	*			*	*
Implement more educational, interpretive, and outreach programs at the lake office and around the project. Include the following topics: history, dam operations, recreation, cultural resources, ecology, invasive species, and USACE missions.	*	*	*	*	*
Work closely with local interest groups.	*			*	*
Capture trends concerning accidents and other incidents on public lands and coordinate data collection with other public safety officials.	*		*	*	*

Visitor Information, Education, and Outreach Objectives	Goals				
	A	B	C	D	E
Educate adjacent landowners on policies and permit processes to reduce encroachment actions. Adjacent landowner guidelines will be further developed to ensure landowners, stakeholders, and USACE have a defined and standardized approach to boundary line management.	*	*	*	*	*

*Denotes that the objective helps to meet the specified goal

Table 3.4 General Management Objectives

Visitor Information, Education, and Outreach Objectives	Goals				
	A	B	C	D	E
Maintain the USACE boundary line to ensure it is clearly marked and recognizable in all areas to reduce habitat degradation and encroachment actions.	*	*		*	
Ensure best management practices in green design, construction, and operation practices, such as the Leadership in Energy and Environmental Design (LEED) criteria for government facilities, are considered as well as applicable Executive Orders.					*
Carefully manage non-recreation outgrants such as utility and road easements in accordance with national guidance set forth in ER 1130-2-550 and applicable chapters in ER 405-1-12.	*	*			*
Manage project lands and recreational programs to advance broad national climate change mitigation goals, including but not limited to climate change resilience and carbon sequestration, as set forth in applicable USACE policy and Executive Orders.					*

*Denotes that the objective helps to meet the specified goal.

Table 3.5 Cultural Resources Management Objectives

Cultural Resources Management Objectives	Goals				
	A	B	C	D	E
As funding permits, complete an inventory of cultural resources and implement the Cultural Resources Management Plan.	*	*		*	*
Increase public awareness and education of regional history.		*		*	*
Stop unauthorized excavation and removal of cultural resources.		*		*	*
Provide access by Tribal members to any cultural resources, sacred sites, or other Traditional Cultural Properties.	*	*			
Preserve and protect cultural resources sites in compliance with existing federal statutes and regulations.		*			

*Denotes that the objective helps to meet the specified goal.

CHAPTER 4 – LAND ALLOCATION, LAND CLASSIFICATION, WATER SURFACE, AND PROJECT EASEMENT LANDS

4.1 LAND ALLOCATION

All lands at USACE water resource development projects are allocated by USACE into one of four categories in accordance with the congressionally authorized purpose for which the project lands were acquired. There are four possible categories of allocation identified in USACE regulations, including Operations, Recreation, Fish and Wildlife, and Mitigation. At the Project, the only land allocation category that applies is Operations. Operations is defined as those lands that are required to operate the project for the primary authorized purposes of flood risk management and water conservation. The remaining allocations of Recreation, Fish and Wildlife, and Mitigation would apply only if lands had been acquired specifically for these purposes. The entire fee simple federal estate at Addicks Reservoir (13,547 acres) is allocated to Operations. The entire estate at Barker Reservoir (12,452 acres) is allocated to Operations.

4.2 LAND CLASSIFICATION

4.2.1 General

The objective of classifying project lands is to identify how a given parcel of land shall be used now and in the foreseeable future. Land classification is a central component of this plan, and once a particular classification is established any significant change to that classification would require a formal process including public review and comment.

4.2.2 Prior Land Classifications

The previous version of the Addicks and Barker Reservoir Master Plan included land classification criteria that were similar, but not identical to the current criteria. In the years since the previous Master Plan was published, wildlife habitat values, surrounding land use, and regional recreation trends have changed giving rise to the need for revised classifications. Tables 4.1 and 4.2 identify land and classification changes from the 2009 Master Plan to the 2026 Master Plan Revision.

Table 4.1 Addicks Reservoir – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	1,924	Project Operations (PO)	2,048	124
Recreation Areas	1,595	High Density Recreation (HDR)	1,217	(378)
Multiple Resources Management Lands (MRM)	5,610	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	9,174	3,564
Future and Inactive Recreation	101	Future or Inactive Recreation (MRML-FOIR)	443	342
Environmentally Sensitive Area (ESA)	4,317	Environmentally Sensitive Area (ESA)	665	(3,652)
LAND TOTAL	**13,547**	**LAND TOTAL**	**13,547**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

Table 4.2 Barker Reservoir – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	2,188	Project Operations (PO)	2,332	144
Recreation Areas	1,363	High Density Recreation (HDR)	1,431	68
Multiple Resources Management Lands (MRM)	5,655	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	8,390	2,735
Future and Inactive Recreation	336	Future or Inactive Recreation (MRML-FOIR)	0	(336)
Environmentally Sensitive Area (ESA)	2,910	Environmentally Sensitive Area (ESA)	299	(2,611)
LAND TOTAL	**12,452**	**LAND TOTAL**	**12,452**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

4.2.3 Land Classifications

USACE regulations require project lands and waters to be classified in accordance with the primary use for which project lands are managed. There are six categories of classification identified in USACE regulations, including:

- Project Operations
- High Density Recreation
- Mitigation
- Environmentally Sensitive Areas
- Multiple Resource Management Lands
- Water Surface

The land classifications for Addicks and Barker Reservoirs were established after considering public comments and input from key stakeholders, including elected officials, and city and county governments. Additionally, information from the 2018 TORP, including public comments, wildlife habitat values, and the trends analysis were used in decision making. Maps showing the various land classifications can be found in Appendix A. The following paragraphs provide acreages and descriptions of allowable uses for each of the land classifications.

Project Operations (PO)

The PO classification includes the lands managed for operation of the dam, project office, spillway, dikes, and maintenance yards, all of which must be maintained to carry out the authorized purpose of flood risk management. In addition to the operational activities taking place on these lands, limited recreational use may be allowed for activities such as public access to the shoreline for fishing. Regardless of any limited recreation use allowed on these lands, the primary classification of Project Operations will take precedent over other uses. There are 2,048 acres of at Addicks Reservoir and 2,332 acres at Barker Reservoir of Project Operations land specifically managed for this purpose.

High Density Recreation (HDR)

HDR lands are developed for intensive recreational activities for the visiting public, including day use areas, campgrounds, marinas, and related concession areas. Recreational areas operated by lessees on USACE lands must follow policy guidance contained in USACE regulations at ER 1130-2-550, Chapter 16. That policy includes the following statement:

> "*The primary rationale for any future recreation development must be dependent on the project's natural or other resources. This dependency is typically reflected in facilities that accommodate or support water-based activities, overnight use, and day use such as marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project's natural or other resources include theme parks or ride-type attractions, sports or concert*

stadiums, and standalone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Normally, the recreation facilities that are dependent on the project's natural or other resources, and accommodate or support water-based activities, overnight use, and day use, are approved first as primary facilities followed by those facilities that support them. Any support facilities (e.g., playgrounds, multipurpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, and boat repair facilities) must also enhance the recreation experience, be dependent on the resource-based facilities, [and] be secondary to the original intent of the recreation development…"

Lands classified for HDR are suitable for the development of comprehensive resorts. The regulation cited above defines Comprehensive Resort as follows:

"*Typically, multi-faceted developments with facilities such as marinas, lodging, conference centers, golf courses, tennis courts, restaurants, and other similar facilities."*

At Addicks and Barker, prior land classifications did not include high density recreation. Currently, there are 1,217 acres at Addicks and 1,431 acres at Barker classified as HDR. The brief description and resource management plan for each HDR area is described briefly in Chapter 5 and mapped in Appendix A.

Mitigation (MG)

The MG classification is used only for lands allocated by Congress for mitigation for the purpose of offsetting losses associated with the development of the project. There are no lands at Addicks and Barker Reservoirs with this classification.

Environmentally Sensitive Areas (ESA)

ESAs include scientific, ecological, cultural, and aesthetic features identified and in need of preservation. There are 665 acres at Addicks Reservoir and 299 acres at Barker Reservoir with this classification.

Multiple Resource Management Lands (MRML)

This land classification is divided into four sub-classifications: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. A given tract of MRML land is classified using one of these sub-classifications, with the primary sub-classification reflective of the dominant use of the land. Typically, MRMLs support only passive, non-intrusive uses with very limited facilities or infrastructure. Where needed, some areas may require basic facilities that include, but are not limited to, minimal parking spaces, a small boat launch, and/or primitive sanitary facilities. There are 9,617 acres of MRML lands at Addicks Reservoir and 8,390 acres of MRML at Barker Reservoir. The following sections describes each sub-classification, the number of acres, and primary uses for each designation.

Low Density Recreation (LDR)

LDR lands support passive public recreational use (e.g., fishing, hunting, wildlife viewing, natural surface trails, hiking, etc.). There are no acres under this land classification at Addicks and Barker Reservoirs.

Wildlife Management (WM)

The WM land classification applies to lands managed primarily for the conservation of fish and wildlife habitat. These lands generally include comparatively large contiguous parcels of land for passive recreation uses such as natural surface trails, fishing, hunting, and wildlife observation, unless restrictions are necessary to protect sensitive species or to promote public safety. There are no acres of land included in this classification at Addicks and Barker Reservoirs.

Vegetative Management (VM)

VM lands are designated for stewardship of forest, grassland and other native vegetative cover. Passive recreation activities previously described may be allowed in these areas. There are 9,174 acres of land at Addicks Reservoir and 8,390 acres of land at Barker Reservoir included in this classification.

Future or Inactive Recreation (FOIR)

FOIR lands have site characteristics compatible with HDR development. These are areas where HDR development was anticipated in prior land classifications, but the development either never took place or was minimal. These areas are typically closed to vehicular traffic and are managed as MRML until development takes place. There are 443 acres of land at Addicks Reservoir and none at Barker Reservoir included in this classification.

As the Project does not have a conservation pool, only land classification applies. The land classifications for the Project were established after considering public comments, input from key stakeholders, and subject matter experts from USACE personnel. Additionally, the trends analysis provided in the Texas SCORP were used in decision making. Maps showing the various land classifications can be found in Appendix A. Each of the land classifications, including the acreage and description of allowable uses, is described in the following paragraphs.

4.2.4 Project Easement Lands

Project Easement Lands are primarily lands on which easement interests were acquired. Fee title was not acquired on these lands, but the easement interests convey to the Federal government certain rights to use and/or restrict the use of the land for specific purposes. Easement lands are typically classified as Operations Easement, Flowage Easement, and/or Conservation Easement. A flowage easement, in general, grants to the government the perpetual right to occasionally flood/inundate land during flood risk management operations and to prohibit activities on the flowage easement

that would interfere with flood risk management operations such as placement of fill material, construction of habitable structures, or placement of other structures without prior written approval of the government.

CHAPTER 5 – RESOURCE PLAN

5.1 MANAGEMENT BY CLASSIFICATION

This chapter describes the management plans for each land use classification within the Master Plan. The classifications that exist at Addicks and Barker Reservoirs are Project Operations, High Density Recreation, Environmentally Sensitive Areas (ESA) and Multiple Resource Management Lands, which consist of Vegetative Management and Future or Inactive Recreation. The management plans describe how these project lands and water surface will be managed in broad terms.

5.2 PROJECT OPERATIONS

Project Operations is land associated with the dam, spillway, dikes, project office, maintenance facilities, and other areas solely for the operation of the project. There are 2,048 acres at Addicks Reservoir and 2,332 acres at Barker Reservoir of lands under this classification, all of which are managed by the USACE. The management plan for the Project Operations area is to continue providing physical security necessary to ensure sustained operations of the dam and related facilities, including restricting public access in hazardous locations near the dam. Limited and passive recreation use such as bank fishing and hiking is currently allowed within some areas classified as Project Operations, but USACE considers this use to be incidental and may prohibit such use without notice for project operational or security needs.

Recommended future actions for these areas include facility upgrades to meet USACE sustainability objectives as funding and personnel allow. Implementing low impact design into future building, parking and site developments will continue to be emphasized. Opportunities to incorporate environmental stewardship objectives for land management such as invasive species monitoring and control, and wildlife management will be implemented as appropriate.

5.3 HIGH DENSITY RECREATION

Addicks has 1,217 acres and Barker has 1,431 acres developed for intensive recreational activities for the visiting public, including day use areas, boat launches, and access points, which is all managed by the USACE. National USACE policy set forth in ER 1130-2-550, Chapter 16, adopted March 30, 2009, limits new recreation development within outgranted (leased) areas on USACE lands to those activities that are dependent on a project's natural resources and typically include water-based activities, overnight use, and day use (such as campgrounds, picnic areas, and boat launching ramps). Examples of activities that are not dependent on a lake's natural resources include stand-alone theme parks, sport or concert stadiums, restaurants, and hotels. Stand-alone golf courses are considered an example of these activities that cannot be developed following adoption of Chapter 16 of ER 1130-2-550.

USACE does not operate or manage any HDR areas at the Project. All recreation areas are operated and managed by other entities (see Appendix A for maps of

recreation areas and managing entities). The following is a description of recreational opportunities at Addicks and Barker Reservoirs.

The following is a description of the main recreation areas at Addicks and Barker Reservoirs. Maps showing existing parks and facilities can be found in Appendix A.

5.3.1 High Density Recreation Areas

Addicks Reservoir

Bear Creek Park

Located in Addicks Reservoir, leased by Harris County, and managed by Harris County Precinct 4, Bear Creek Park is a large, wooded park with many recreational facilities, including tennis courts, soccer fields, rugby, baseball. Bill Archer Dog Park is also included in the footprint of Bear Creek Park.

Bear Creek Park also includes the Bear Creek Pioneers Park, which covers approximately 2,155 acres and offers over 2 miles of hiking/biking trails and 3.5 miles of equestrian trails. Bear Creek Pioneers Park has baseball/softball fields, soccer fields, playgrounds, pavilions, picnic areas, exercise stations, an aviary, horseshoe courts and more. This park is also home to the Harris County War Memorial to honor Harris County residents who died in World War I. Scout camping reservations are also available in the park.

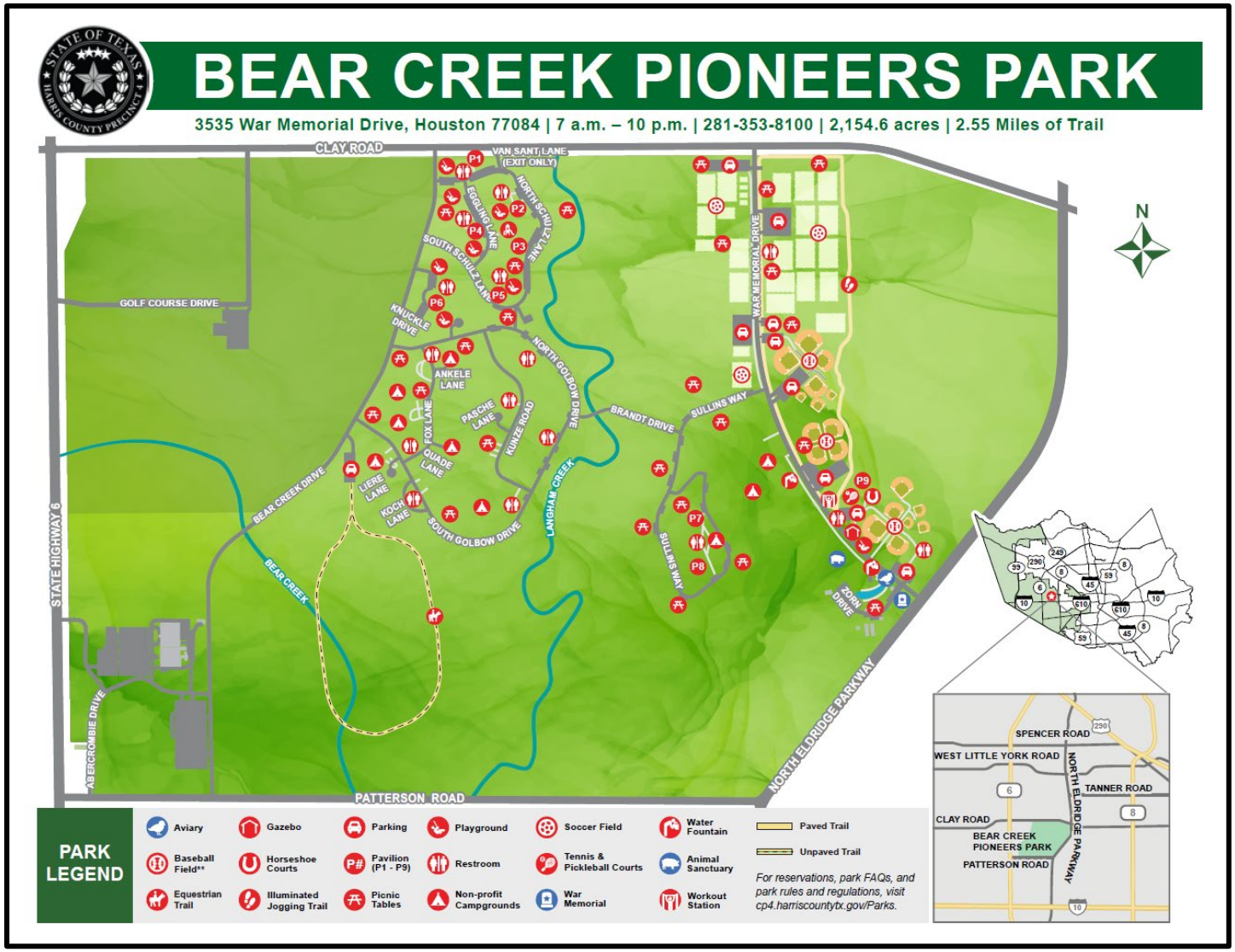


Figure 5.1 Bear Creek
Pioneers Park Map

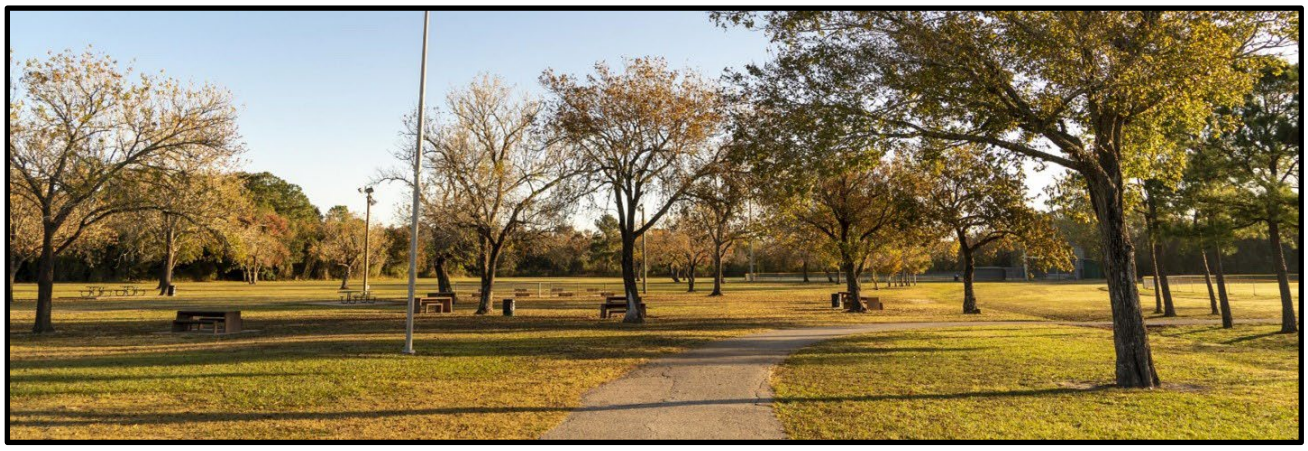


Photo 5.1 Bear Creek Pioneer Park at Addicks Reservoir
Source: Harris County Precinct 4

Cullen Park

Located in Addicks Reservoir and leased and managed by the City of Houston's Park and Recreation Department, Cullen Park is a large, multi-purpose park spanning approximately 9,270 acres, featuring 3.5 miles of hiking/biking trails. Amenities include hiking and biking trails, and three areas equipped with soccer fields, baseball fields, picnic pavilions, restrooms, and other day use facilities. Additionally, the park offers the Buffalo Archery Range and a velodrome (bicycle track).

Barker Reservoir

George Bush Park

Located in the Barker Reservoir, leased by Harris County, and managed by Harris County Precinct 4, the George Bush Park covers approximately 7,800 acres and offers a variety of activities. It features the American Shooting Range, a model airplane airport, soccer fields, baseball fields, equestrian trails, and the Millie Bush Bark Park for dogs. George Bush Park also offers 11.36 miles of hiking and biking trails, and three reservable pavilions near a playground. Scout reservations are available.



Figure 5.2 George Bush Park Map



Photo 5.2 George Bush Park at Barker Reservoir
Source: Harris County Precinct 4

Cinco Ranch Park

Cinco Ranch Park is located in the Barker Reservoir and is leased and managed by Fort Bend County. Freedom Park is a portion of Cinco Ranch Park and covers approximately 1,961 acres and offers various activities, including soccer fields, a playground, walking trails, and is home to the Armed Forces Memorial Tower.

5.4 MITIGATION

This classification is used for lands that were acquired specifically for the purpose of offsetting losses associated with development of the project. There are no acres at Addicks and Barker Reservoirs under this classification.

5.5 ENVIRONMENTALLY SENSITIVE AREAS

A total of 665 acres at Addicks Reservoir and 299 acres at Barker Reservoir are designated as Environmentally Sensitive Areas (ESA). These are areas where scientific, ecological, cultural, or aesthetic features have been identified. Designation of these lands is not limited to just lands that are otherwise protected by laws such as the Endangered Species Act, the NHPA, or applicable state statutes. The primary management objective for ESAs is to allow existing uses to continue but to protect sensitive resources from intensive development, use, or disturbance beyond that which currently exists. In general, these areas must be managed to ensure that they are not adversely impacted. With the exception of natural surface pedestrian trails and minimal visitor parking areas, limited or no development of public use facilities is allowed on these lands and no real estate outgrants for easements should be granted unless disturbance can be confined to the boundaries of existing easements. No agricultural or grazing uses are permitted on these lands unless necessary for a specific resource management benefit, such as habitat restoration and management. An ESA

classification provides the highest level of ecological protection among the various land use classifications.

5.6 MULTIPLE RESOURCE MANAGEMENT LANDS

MRML are organized into four sub-classifications. These sub-classifications are Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. The following is a description of each sub-classification's resource objectives, acreages, and description of use. There are 9,617 acres at Addicks Reservoir and 8,390 acres at Barker Reservoir classified as Multiple Resource Management Lands, subclassified as follows.

5.6.1 Vegetative Management (MRML-VM)

These are lands that have vegetative types considered to be sensitive and needing special classification to ensure success. There are 9,174 acres identified at Addicks Reservoir and 8,390 acres identified at Barker Reservoir for the primary purpose of vegetative management.

5.6.2 Future or Inactive Recreation (MRML-FOIR)

These are areas with site characteristics compatible with potential future recreational development or recreation areas that are closed. Until there is an opportunity to develop or reopen these areas, they will be managed for multiple resources. There are 443 acres at Addicks Reservoir and no acres at Barker Reservoir classified under this sub-classification.

5.7 SUSTAINABILITY

Sustainability is a multi-pronged aspect of responsible stewardship of USACE lands. The outcome of sustainability initiatives is to have a program that is able to adapt to fiscal challenges, safeguards the environment, and continues to provide high quality recreational opportunities for the public. As the nation's largest provider of outdoor recreation, managing 12 million acres of lands and waters across the country, USACE is committed to implementing initiatives that link people to water.

The recreational mission of USACE is to manage and conserve natural resources, while providing quality public outdoor recreation opportunities to serve the needs of the present and future generations. This is in line, and indeed the underpinning, of all the goals and objectives for Addicks and Barker Reservoirs resources and management. The national USACE 2021 Natural Resources Management Strategic Plan identifies several goals and related objectives designed to build a more robust environmental and recreational program on USACE managed lands. The four primary goals are Workforce Development; Improved Communication; Resourcing; and Program Delivery. Under the umbrella goal of Program Delivery, several objectives center specifically on promoting environmental sustainability in all aspects of natural resources management. This includes integrating environmental operating principles and other environmental regulations and initiatives into day-to-day

decision making and long-range planning. Other objectives include using Leadership in Energy and Environmental Design (LEED) certified personnel and projects in facility design and maintenance on land-based recreation areas and updating project Master Plans to include environmental sustainability elements.

Meeting the public's needs and continuing to provide a full range of outdoor recreation opportunities will require collaboration. In support of that, USACE will maintain and enhance existing rapports while seeking new and innovative types of relationships with federal, state, and local agencies, volunteers, non-government organizations, cooperators, and others to provide certain recreation services and opportunities to the public. Besides pursuing and maintaining partnerships, it is important to continue to identify, analyze, and evaluate authorities and policies such as fee collection and retention, and increased partnership capabilities. Areas identified for changes to meet the goals and objectives of this strategy include authorities for fee collection and retention without budgetary offset, and policies that pertain to funding schedules for partnership projects.

Through creativity, innovation, strong partnerships, and environmentally sustainable stewardship, quality recreational opportunities will continue to be available to the public. This will be done while simultaneously protecting the water, environment, and cultural resources for current and future generations.

CHAPTER 6 – SPECIAL TOPICS/ISSUES/CONSIDERATIONS

6.1 COMPETING INTERESTS OF NATURAL RESOURCES

6.1.1 Grazing

The 2009 Addicks and Barker Reservoir Master Plan identified twenty-four contracts for cattle grazing in the reservoirs. A determination by the Galveston District to no longer allow grazing as a land management tool was made and as a result grazing in the Addicks and Barker Reservoirs are no longer occurring as of 31 December 2018. There are no plans to allowing grazing in the future.

6.1.2 Water Control Plan

Management of flood waters in the reservoirs is described in detail in the Water Control Manual for the project. Changes to the water control management will occur through the water control manual.

6.1.3 Public Hunting

All lands not designated as operational land have been leased out to Harris County, Fort Bend County, and the City of Houston and USACE is not currently managing a public hunting program.

6.2 UTILITY CORRIDORS

USACE policy allows for the establishment of designated corridors on project lands, where feasible, to serve as the preferred location for future outgrants such as easements for roads or utility lines. After obtaining public input and examining the location of existing roads and utility lines on project lands, the USACE decided that the creation of utility corridors would not be necessary at the time of the MP revision. Any entity seeking a utility easement to cross USACE property must research alternate routes around USACE property and demonstrate that a feasible alternative does not exist. Additionally, an evaluation under NEPA would be required.

6.3 CULTURAL RESOURCES AND CONSULTATION WITH TRIBAL NATIONS

It is required for federal agencies to consult with affiliated Federally Recognized Tribes on various activities that take place on federal land under federal guidance including but not limited to Sections 106 and 110 of the National Historic Preservation Act (NHPA) of 1966 (as amended); Archaeological Resources Protection Act (ARPA) of 1979; Native American Graves Protection and Repatriation Act (NAGPRA); and 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections. Implementing regulations for Section 106 of the NHPA and NAGPRA are 36 CFR Part 800 and 43 CFR Part 10, respectively. All cultural resources laws and regulations should be addressed under the requirements of NEPA as amended. USACE summarizes the guidance provided in these laws in ER and EP 1130-2-540.

Additionally, Executive Order 13007 states that each federal agency with responsibility for the management of federal lands shall accommodate access to and ceremonial use of Native American sacred sites by religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

The Galveston District takes its responsibilities for consultation on a government-to-government basis very seriously and consulted extensively with federally recognized tribes on the Addicks and Barker Reservoirs Master Plan. The Tribes the USACE consults with are the Alabama-Coushatta Tribe of Texas, Comanche Nation of Oklahoma, Coushatta Tribe of Louisiana, Kickapoo Traditional Tribe of Texas, Kiowa Indian Tribe of Oklahoma, Mescalero Apache Tribe of the Mescalero Reservation, and the Tonkawa Tribe of Oklahoma.

The Galveston District consulted with Tribes primarily on developing best practices and ensuring areas of Tribal concern were addressed. This process has allowed Tribes to become more familiar with USACE property at Addicks and Barker Reservoirs, and has increased USACE staff awareness of Tribal histories, sites, and concerns in the area. This exchange of knowledge from developing the Master Plan will allow USACE staff to better engage with Tribes on future projects at Addicks and Barker Reservoirs and will likely lead to more efficient reviews and better outcomes meeting objectives for both parties. More information about the consultation can be found in Section 7.4.

CHAPTER 7 – PUBLIC AND AGENCY COORDINATION

7.1 PUBLIC, AGENCY, AND TRIBAL COORDINATION OVERVIEW

The USACE is dedicated to serving the public interests in support of the overall development of land uses related to land management of cultural, natural, and recreational resources of Addicks and Barker. An integral part of this effort is gathering public comment and engaging stakeholders in the process of planning. USACE policy guidance in ER and EP 1130-2-550 requires thorough public involvement and agency coordination throughout the Master Plan revision process including any associated NEPA process. Public involvement is especially important at Addicks and Barker Reservoirs to ensure that future management actions are environmentally sustainable and responsive to public outdoor recreation needs. The following milestones provide a brief look at the overall process of revising the Addicks and Barker Master Plan.

The USACE began planning to revise the Addicks and Barker Master Plan in December 2023. The objectives for the Mater Plan revision are to (1) revise land classifications to reflect changes in USACE land management policies since the 2009 Master Plan, (2) prepare new resource goals and objectives, and (3) revise the Master Plan to reflect new agency requirements for Master Plan documents in accordance with ER 1130-2-550, Change 7, January 30, 2013 and EP 1130-2-550, Change 5, January 30, 2013.

7.2 INITIAL STAKEHOLDER AND PUBLIC MEETINGS

A public open house was originally scheduled for 10 July 2024 at the Trini Mendenhall Community Center in Houston, Texas. Due to the impacts of hurricane Beryl on the region the meeting was rescheduled for 19 August 2024 at the Trini Mendenhall Community Center. The public comment period opened on 10 July 2024 and remained open until 18 September 2024 to ensure all members of the public had adequate time to comment on the Master Plan Revision. At the public information meeting a presentation was available that included the following topics:

- What is a Master Plan?
- What a Master Plan is Not
- Why Revise a Master Plan?
- Overview of the National Environmental Policy Act (NEPA) process
- Master Planning Process
- Instructions for submitting comments

Interested persons had the opportunity to comment about the project using a variety of methods, including the following:

- Filling out a comment form at the open house
- Taking a comment form home to be returned at a later date
- Submitting a comment using electronic mail
- Submitting a comment and mailing it in on letterhead or choice of paper

The USACE received twenty-five (25) comments during the initial 30-day comment period, and no additional comments were received during the additional 38-day comment period extension. Nineteen (19) comment were received from the public, five (5) comments from non-governmental agencies and one (1) was received from the City of Katy. Issues addressed in the comments included more natural area recreational and educational opportunities, concerns with flood management, protection of cultural and biological resources and many others. While not all of these topics are necessarily addressed as part of the Master Plan, all the public comments received were noted and will be addressed as future funds and development are considered.

Addicks and Barker Reservoirs are federally owned and managed public property, and USACE aspires to be a good neighbor, as well as steward for public interest as it concerns the Project. As such, USACE is bound to the equal enforcement of policies and fees for this publicly held national asset. Appendix E provides a summary list of the comments received during the initial scoping comment period for the Master Plan, followed by the USACE response.

7.3 PUBLIC AND AGENCY REVIEW OF DRAFT MP, EA, AND FONSI

This section will be completed after the public comment period for the Draft MP, EA, and FONSI.

7.4 TRIBAL CONSULTATION

In 2024, the USACE consulted with the appropriate Tribal Nations on the notice of availability for the scoping effort for this Master Plan and Environmental Assessment seeking their comments and confirmation of interest. A sample letter is included in Appendix B.

The following recognized Tribal Nations were consulted in 2024:

- Alabama-Coushatta Tribe of Texas
- Comanche Nation of Oklahoma
- Coushatta Tribe of Louisiana
- Kickapoo Traditional Tribe of Texas
- Kiowa Indian Tribe of Oklahoma
- Mescalero Apache Tribe of the Mescalero Reservation
- Tonkawa Tribe of Oklahoma

For the Draft Master Plan and Environmental Assessment, the same group of recognized Tribal Nations were consulted to notify of the Open House the availability of the draft documents.

CHAPTER 8 – SUMMARY OF RECOMMENDATIONS

8.1 SUMMARY OVERVIEW

The preparation of this Master Plan for Addicks and Barker Reservoirs followed the USACE master planning guidance in ER 1130-2-550 and EP 1130-2-550, both dated 30 January 2013. Three major requirements set forth in the guidance include the preparation of contemporary resource objectives, classification of project lands using the approved classification standards, and the preparation of a resource plan describing in broad terms how the land in each of the land classifications will be managed into the foreseeable future. Additional important requirements include rigorous public involvement throughout the process, consideration of regional recreation and natural resource management priorities identified by other federal, state, and municipal authorities, and consultation with local Tribal Nations.

The study team endeavored to follow this guidance to prepare a Master Plan that will provide for enhanced recreational opportunities for the public, improve environmental quality, and foster a management philosophy conducive to existing and projected USACE staffing levels at Addicks and Barker Reservoirs as also reflected in ER 1130-2-540 Change 2 dated July 2005. Factors considered in the Plan development were identified through public involvement and review of regional and statewide planning documents including the 2018 TORP prepared by the Recreation Grants Branch State Parks Division of TPWD, EPA Ecoregion Handbook and descriptions, the USFWS ICAP website. This Master Plan will guide the long-term sustainability of the outdoor recreation program and natural resources associated with Addicks and Barker Reservoirs.

8.2 LAND CLASSIFICATION

A key component in preparing this Master Plan was examining prior land classifications and addressing the needed transition to the updated land classification standards that reflect how lands are being managed now and will be managed in the foreseeable future. The updated land classification standards will also comply with current USACE standards. Public comment was solicited to assist in making these land reclassification decisions. Consultation was also conducted with Tribal Nations to provide input on cultural and natural resources to help inform the land classification decisions. Chapter 7 of this Plan describes the public involvement process and Appendix E provides a summary of public comments received. After analyzing public comment, examining recreational trends, and taking into account regional natural resource management priorities, USACE team members reclassified the federal lands for Addicks Reservoir as described in Table 8.1 and explained in Table 8.2 and Barker Reservoir as described in Table 8.3 and explained in Table 8.4. Maps are included in Appendix A to define the areas where proposed changes in land classification were implemented.

Table 8.1 Addicks Reservoir – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	1,924	Project Operations (PO)	2,048	124
Recreation Areas	1,595	High Density Recreation (HDR)	1,217	(378)
Multiple Resources Management Lands (MRM)	5,610	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	9,174	3,564
Future and Inactive Recreation	101	Future or Inactive Recreation (MRML-FOIR	443	342
Environmentally Sensitive Area (ESA)	4,317	Environmentally Sensitive Area (ESA)	665	(3,652)
LAND TOTAL	**13,547**	**LAND TOTAL**	**13,547**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

Table 8.2 Addicks Reservoir - Changes and Justifications for Proposed Land Classifications [1,2]

Land Classification	Description of Changes [2]	Justification
Project Operations (PO)	Net increase in PO lands from 1,924 to 2,048 acres.	All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary mission of flood risk management. Approximately 103 acres of Multiple Resource Management and 21 acres of Environmentally Sensitive were reclassified to PO. These changes place lands leased to the Harris County Flood Control District for flood risk mitigation and other operational areas in PO.
High Density Recreation (HDR)	Net decrease in HDR from 1,595 to 1,217 acres.	1,151 acres previously classified as Recreation Areas were reclassified as HDR to align with the updated name change. Approximately 66 acres previously classified as ESA were reclassified as HDR to capture areas currently managed as HDR.
Multiple Resource Management Lands – Vegetative Management (MRML-VM)	Net increase in MRML-VM from 5,610 to 9,174 acres.	MRML-VM was not utilized as a land classification in the 2009 MP. Approximately 5,506 acres were previously classified as MRM and are now reclassified as MRML-VM. This is due to the updated naming of the classification. 3,567 acres of ESA were classified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 101 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas are no longer considered for intensive recreation.
Future or Inactive Recreation (MRML-FOIR)	Net increase in MRML-FOIR from 101 to 443 acres.	443 acres previously classified as Recreation Area Lands, including the golf course, were reclassified as MRML-FOIR. These acres are no longer in-

Land Classification	Description of Changes (2)	Justification
		active recreation management but may be redeveloped in the future.
Environmentally Sensitive (ESA)	Net decrease in ESA of 3,652 acres.	ESA acres decreased in part due to the 2009 MP classification of all major wetlands and bottomland hardwood vegetation communities as ESAs. This diminished the flood risk management mission and led to development within ESA acres. To provide the project the most flexibility and centralize protection in the most critical areas, the 2026 MP classifies riparian and bottomlands areas within 150 feet linearly of named rivers and streams within the fee boundary. Of the ESA acres outside this 300-foot wide riparian zone, 3,567 were reclassified as MRML-VM, 66 as HDR, and 22 as PO.

(1) The land classification changes described in this table are the result of changes to individual parcels of land ranging from a few acres to several hundred acres. New acreages were measured using more accurate GIS technology, thus total changes will not equal individual changes. The acreage numbers provided are approximate.
(2) Acreages are based on GIS measurements and may vary from net difference detailed in Table 8.1.

Table 8.3 Barker Reservoir – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications[1,2]

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	2,188	Project Operations (PO)	2,332	144
Recreation Areas	1,363	High Density Recreation (HDR)	1,431	68
Multiple Resources Management Lands (MRM)	5,655	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	8,390	2,735
Future and Inactive Recreation	336	Future or Inactive Recreation (MRML-FOIR)	0	(336)
Environmentally Sensitive Area (ESA)	2,910	Environmentally Sensitive Area (ESA)	299	(2,611)
LAND TOTAL	**12,452**	**LAND TOTAL**	**12,452**	**0**

(1) 2009 aces are approximate based on digitizing the 2009 land classification map.
(2) Total fee acreage differences from the 2009 totals to the 2026 totals are due to improvements in measurement technology, deposition/siltation, and erosion. Totals also differ due to rounding while adding parcels.

Table 8.4 Barker Reservoir - Changes and Justifications for Proposed Land Classifications [1,2]

Land Classification	Description of Changes [2]	Justification
Project Operations (PO)	Net increase in PO lands from 2,188 to 2,332 acres.	All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary mission of flood risk management. Approximately 126 acres of Multiple Resource Management and 83 acres of Environmentally Sensitive were reclassified to PO. These changes place lands leased to the Fort Bend County Drainage District for flood risk mitigation and other operational areas in PO.
High Density Recreation (HDR)	Net increase in HDR from 1,363 to 1,431 acres.	The 2009 MP classified 1,363 acres as Recreation Areas. These acres were reclassified as HDR. Approximately 32 acres of Multiple Resources Management Lands and 9 acres of ESA were classified as HDR as well, expanding into areas already being used for intensive recreation.
Multiple Resource Management Lands – Vegetative Management (MRML-VM)	Net increase in MRML-VM from 5,655 (MRM) to 8,390 acres.	Approximately 5,497 acres previously classified as MRM were reclassified as MRML-VM. 2,520 acres previously classified as ESA were reclassified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 320 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas no longer are being considered for intensive recreation.
Future or Inactive Recreation (MRML-FOIR)	No change.	The 2009 MP included Future and Inactive Recreation as a land classification. While this land classification category no longer exists due to policy updates, the intent of the current FOIR classification is the same. The 2009 MP classified 320 acres of Future and Inactive Recreation which

Land Classification	Description of Changes [2]	Justification
		were reclassified as MRML-VM because they are no longer being considered for intensive recreation. 16 acres of Future and Inactive Recreation were reclassified as HDR as this area is now being used for intensive recreation.
Environmentally Sensitive (ESA)	Net decrease in ESA from 2,910 to 299 acres.	ESA acres decreased in part due to the 2009 MP classification of all major wetlands and bottomland hardwood vegetation communities as ESAs. This diminished the flood risk management mission and led to development within ESA acres. To provide the project the most flexibility and centralize protection in the most critical areas, the 2026 MP classifies riparian and bottomlands areas within 150 feet linearly of named rivers and streams within the fee boundary. Of the ESA acres outside this 300-foot wide riparian zone, 2,520 were reclassified as MRML-VM, 83 as HDR, and 9 as PO.

(1) The land classification changes described in this table are the result of changes to individual parcels of land ranging from a few acres to several hundred acres. New acreages were measured using more accurate GIS technology, thus total changes will not equal individual changes. The acreage numbers provided are approximate.
(2) Acreages are based on GIS measurements and may vary from net difference detailed in Table 8.3.

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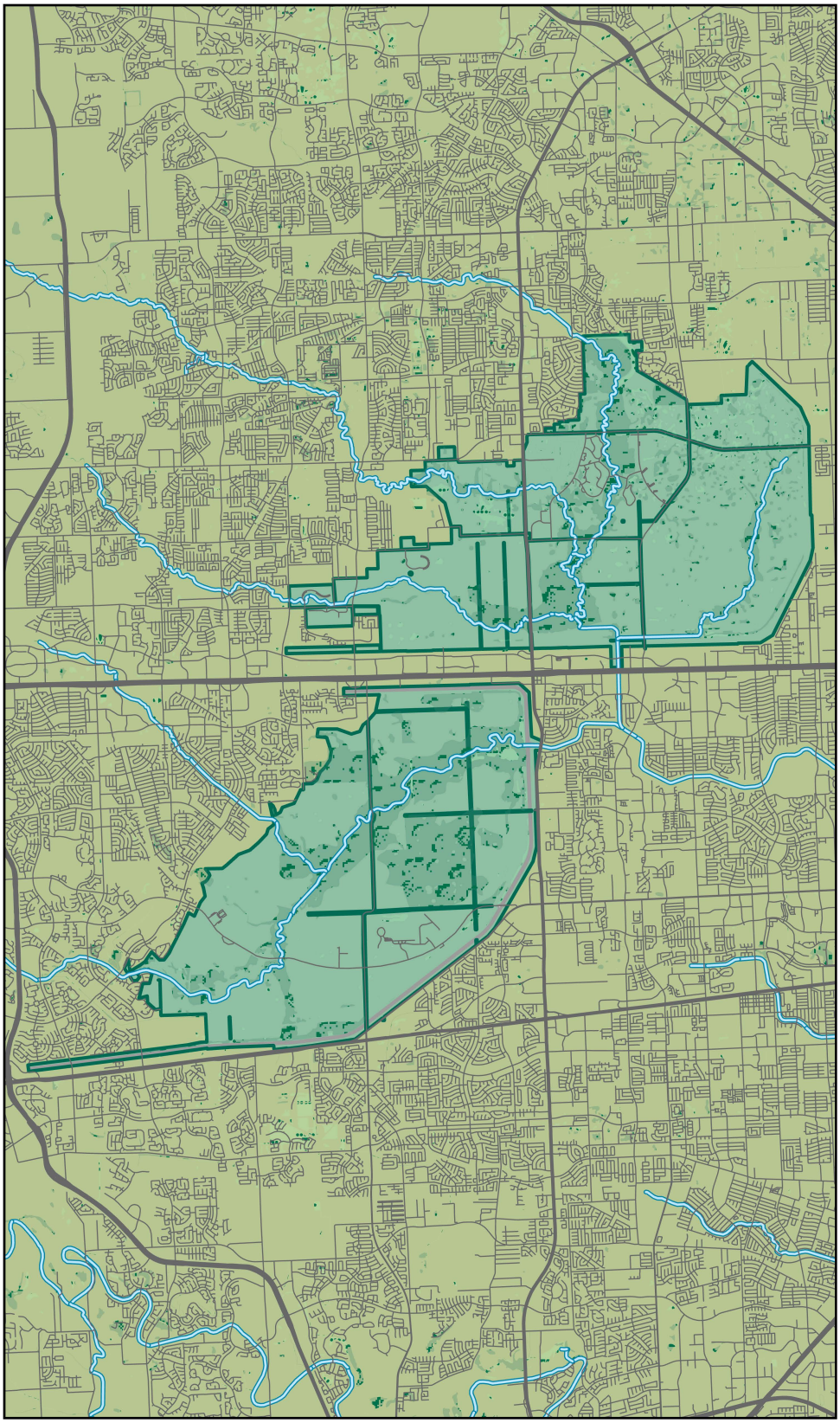
APPENDIX A – LAND CLASSIFICATION, MANAGING AGENCIES, AND RECREATION MAPS

US Army Corps of Engineers ®
Galveston District

ADDICKS & BARKER RESERVOIRS

2026 MASTER PLAN REVISION

SHEET INDEX (0.1)





Sheet Index

0.1 *Sheet Index*

1.1 *Proposed Land Classification*

2.1 *Land Classification Changes from 2009 Master Plan*

3.1 *Land Classification - Index Overview*

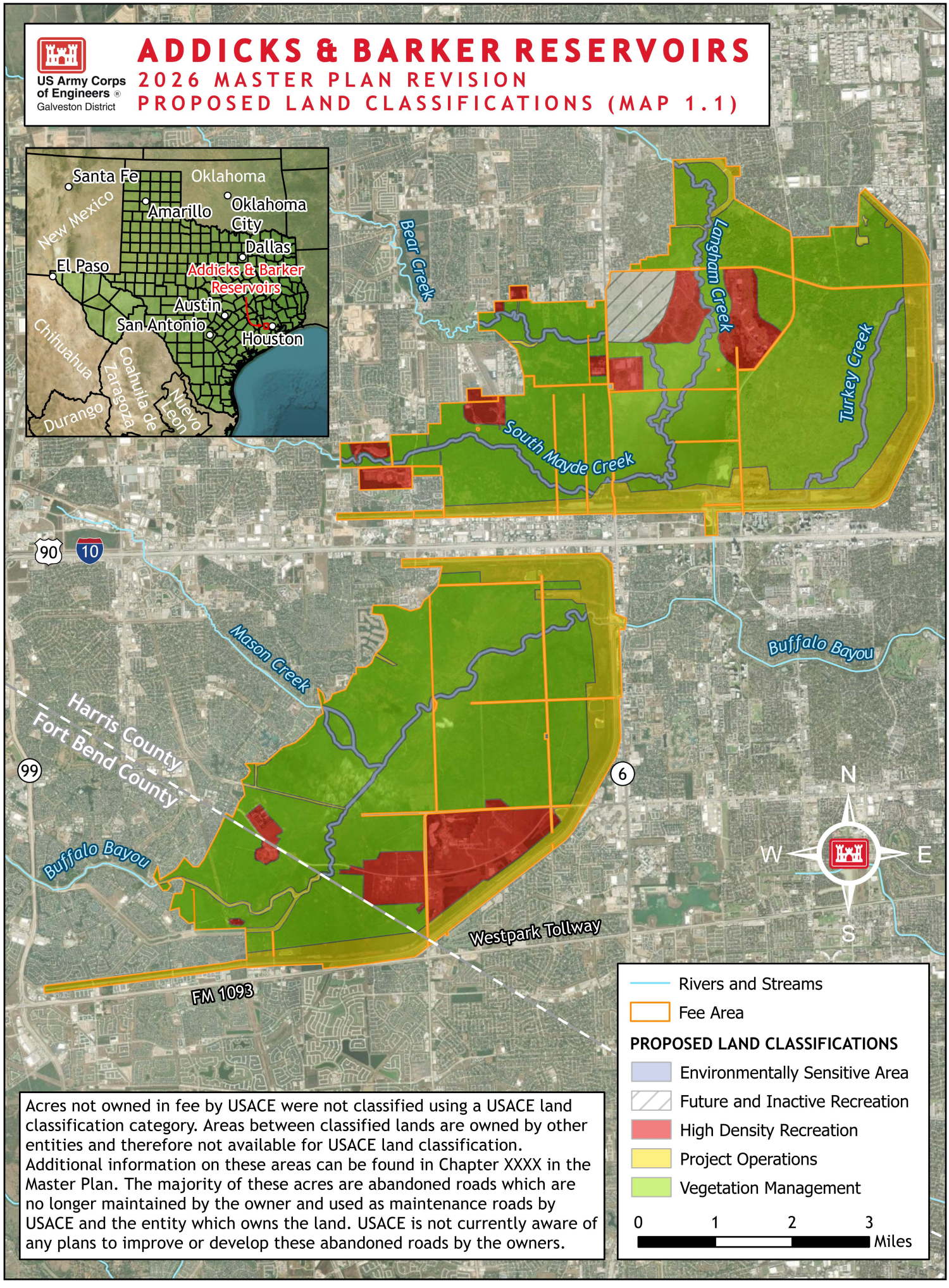
3.2 - 3.5 *Land Classification - Indices 1 - 4*

3.6 - 3.9 *Land Classification Changes - Indices 1-4*

4.1 *Addicks Recreation Areas - Overview*

4.2 *Barker Recreation Areas - Overview*

5.1 *Real Estate - Overview*


US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION
PROPOSED LAND CLASSIFICATIONS (MAP 1.1)
Santa Fe
Oklahoma
New Mexico
Amarillo
Oklahoma City
Dallas
El Paso
Addicks & Barker Reservoirs
Austin
San Antonio
Houston
Chihuahua
Coahuila de Zaragoza
Nuevo Leon
Durango
Bear Creek
Langham Creek
Turkey Creek
South Mayde Creek
90
10
Mason Creek
Buffalo Bayou
Harris County
Fort Bend County
99
6
Buffalo Bayou
Westpark Tollway
FM 1093
N
W
E
S
Rivers and Streams
Fee Area
PROPOSED LAND CLASSIFICATIONS
Environmentally Sensitive Area
Future and Inactive Recreation
High Density Recreation
Project Operations
Vegetation Management
0
1
2
3
Miles
Acres not owned in fee by USACE were not classified using a USACE land classification category. Areas between classified lands are owned by other entities and therefore not available for USACE land classification. Additional information on these areas can be found in Chapter XXXX in the Master Plan. The majority of these acres are abandoned roads which are no longer maintained by the owner and used as maintenance roads by USACE and the entity which owns the land. USACE is not currently aware of any plans to improve or develop these abandoned roads by the owners.

US Army Corps of Engineers ®
Galveston District

ADDICKS & BARKER RESERVOIRS

2026 MASTER PLAN PROPOSED LAND CLASSIFICATION CHANGES FROM 2009 MASTER PLAN (MAP 2.1)



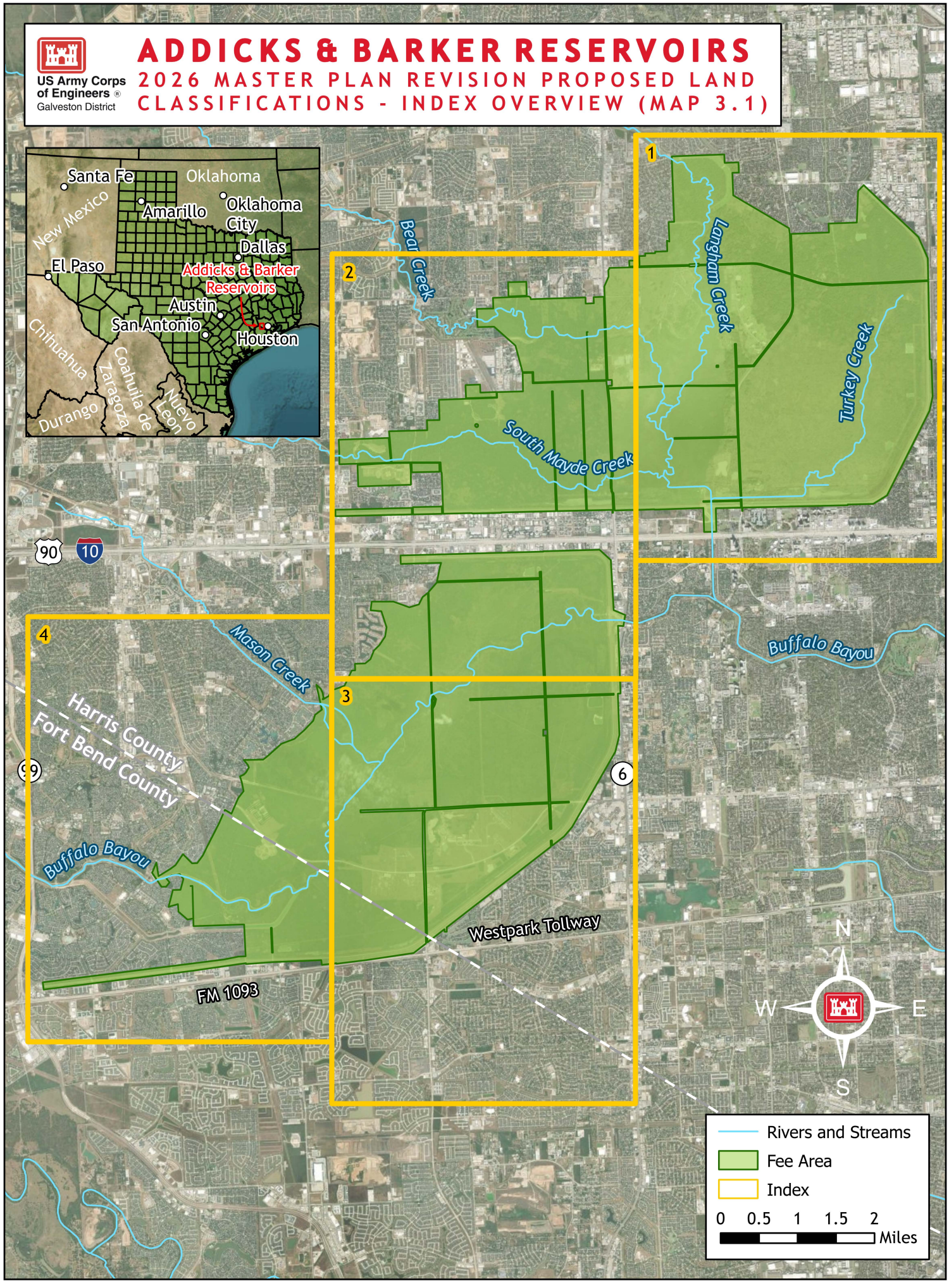
Bear Creek
Langham Creek
Turkey Creek
South Mayde Creek
Mason Creek
Harris County
Fort Bend County
Buffalo Bayou
Westpark Tollway
FM 1093
90
10
99
6

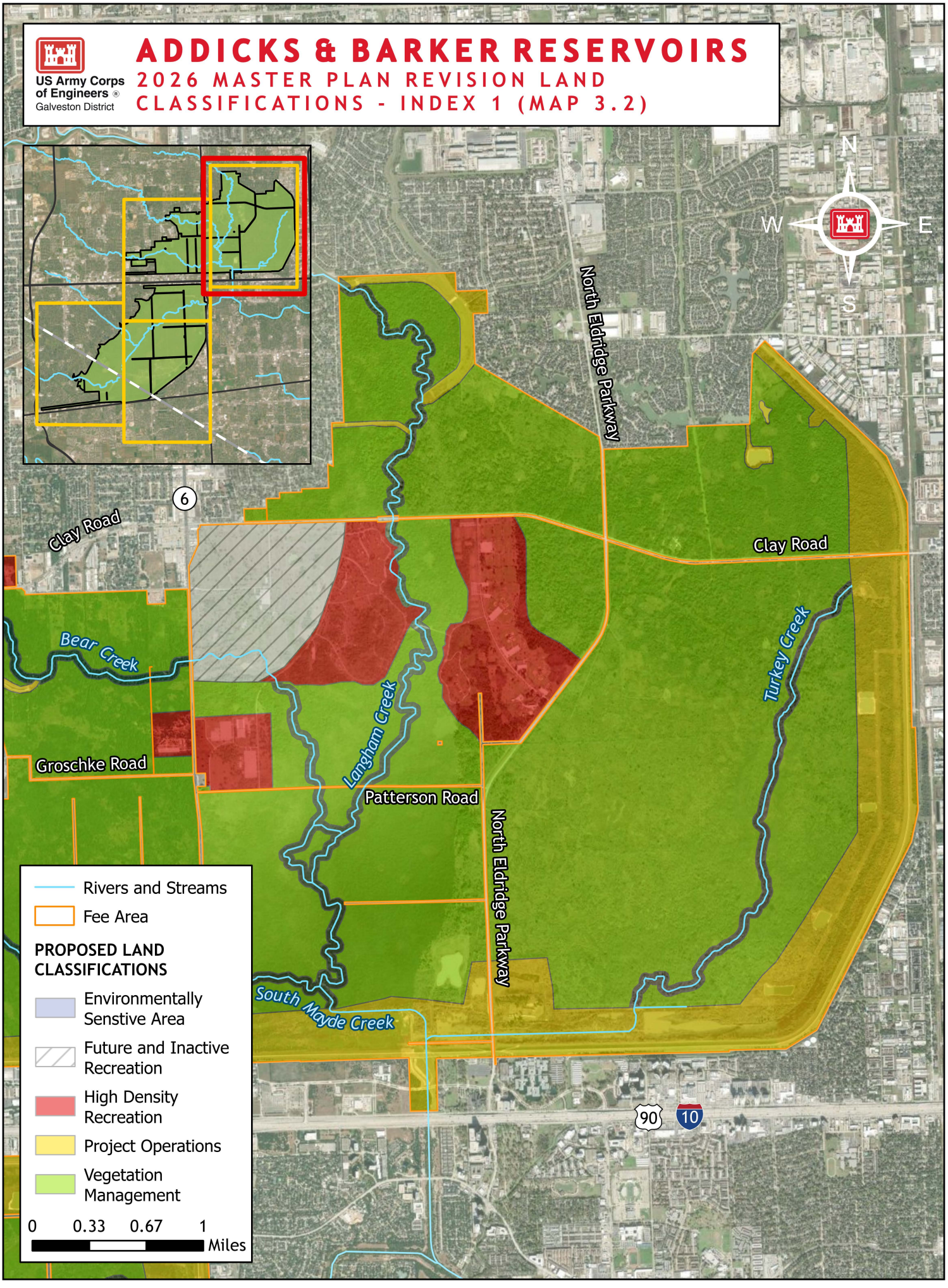
Change from 2009 Classification to Proposed Classification

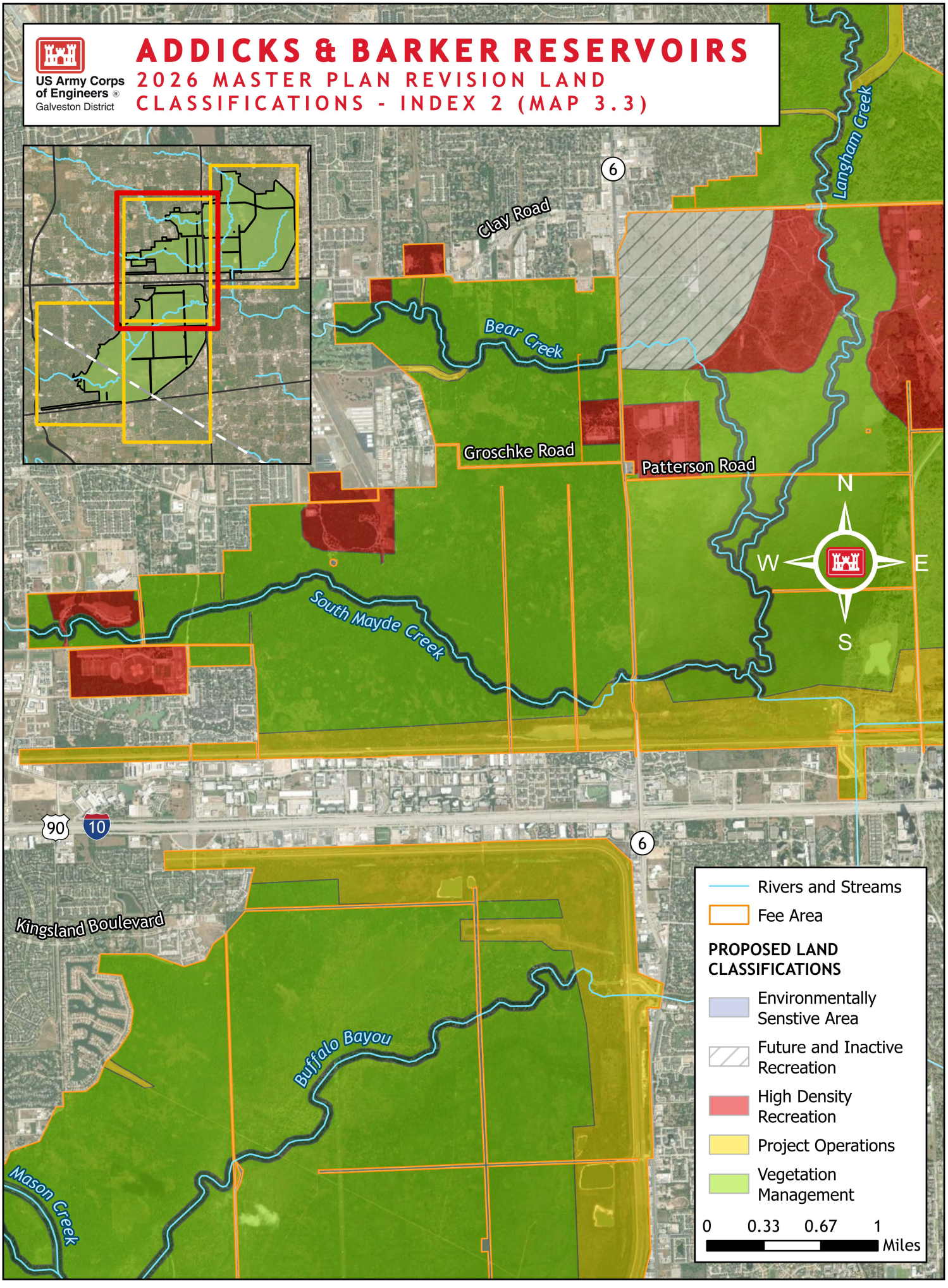
- Environmentally Senstive Area to Future or Inactive Recreation
- Environmentally Sensitive Area to High Density Recreation
- Environmentally Sensitive Area to Project Operations
- Environmentally Sensitive Area to Vegetation Management
- Multiple Resources Management to High Density Recreation
- Multiple Resources Management to Project Operations
- Multiple Resources Management to Vegetation Management
- Project Operations to High Density Recreation
- Project Operations to Vegetation Management
- Proposed Recreation to High Density Recreation
- Proposed Recreation to Vegetation Management
- Recreation Area to Environmentally Sensitive Area
- Recreation Area to Future and Inactive Recreation
- Recreation Area to High Density Recreation
- Recreation Area to Vegetation Management
- No Classification Change

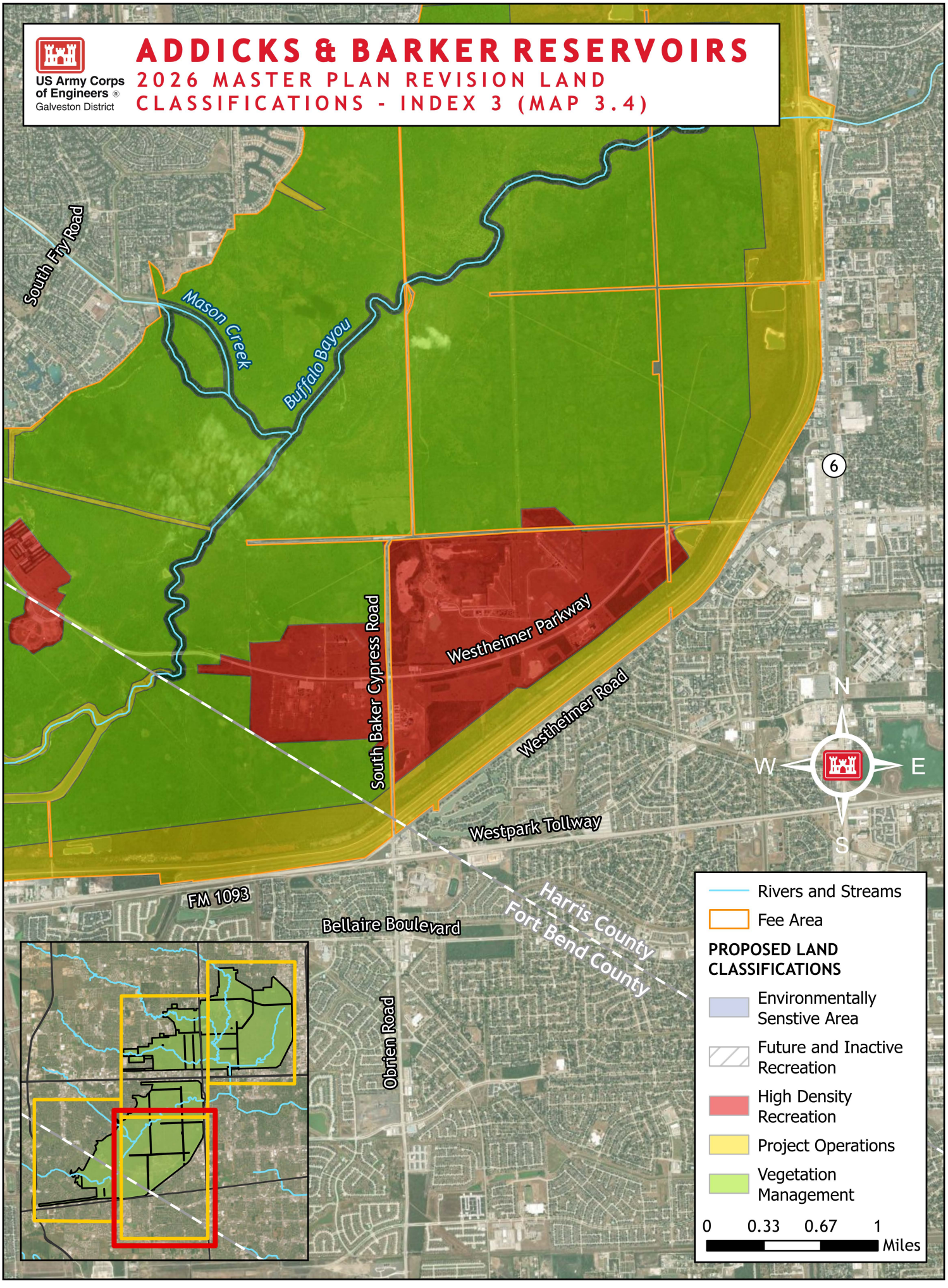
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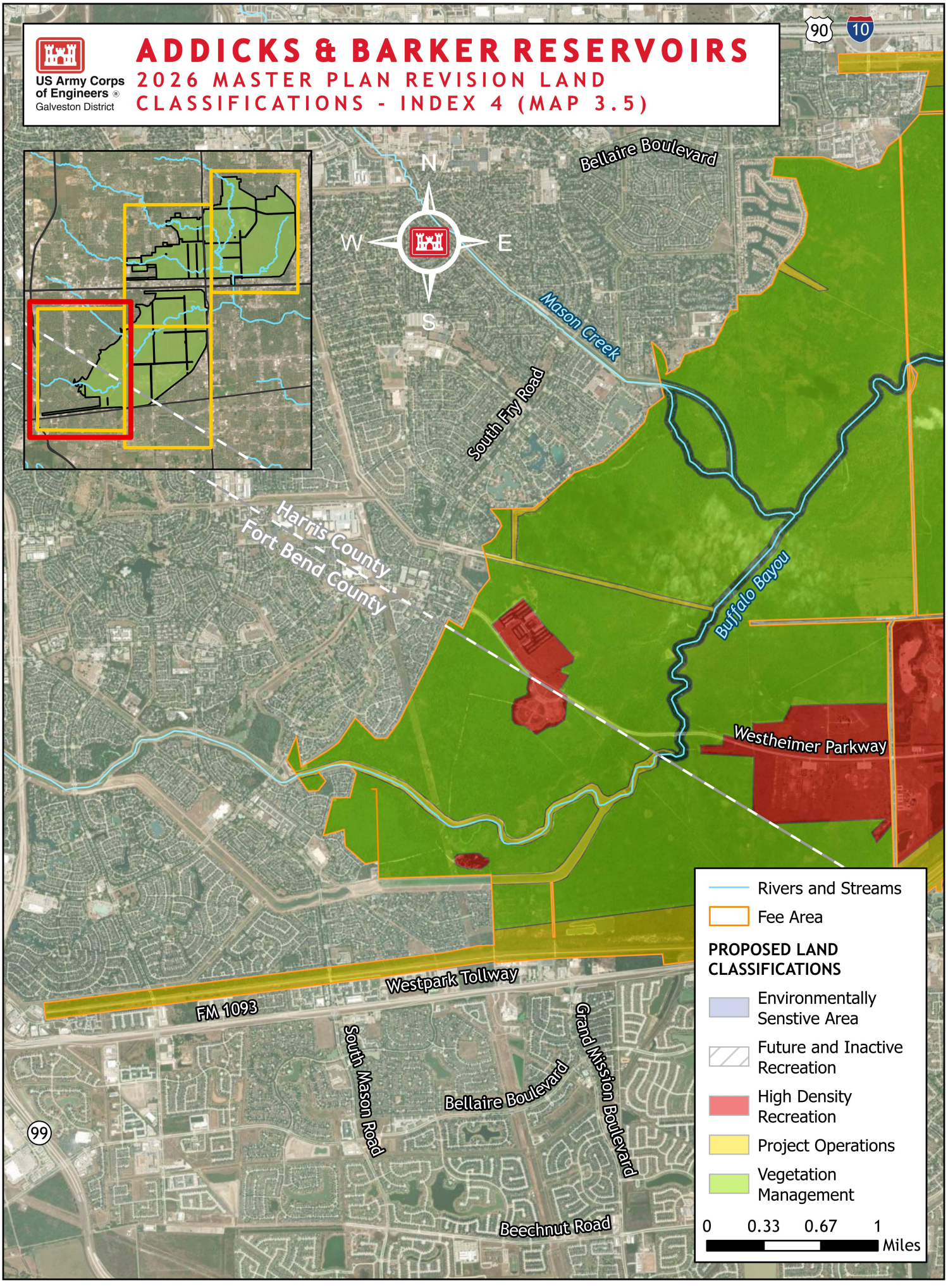
N
W
E
S

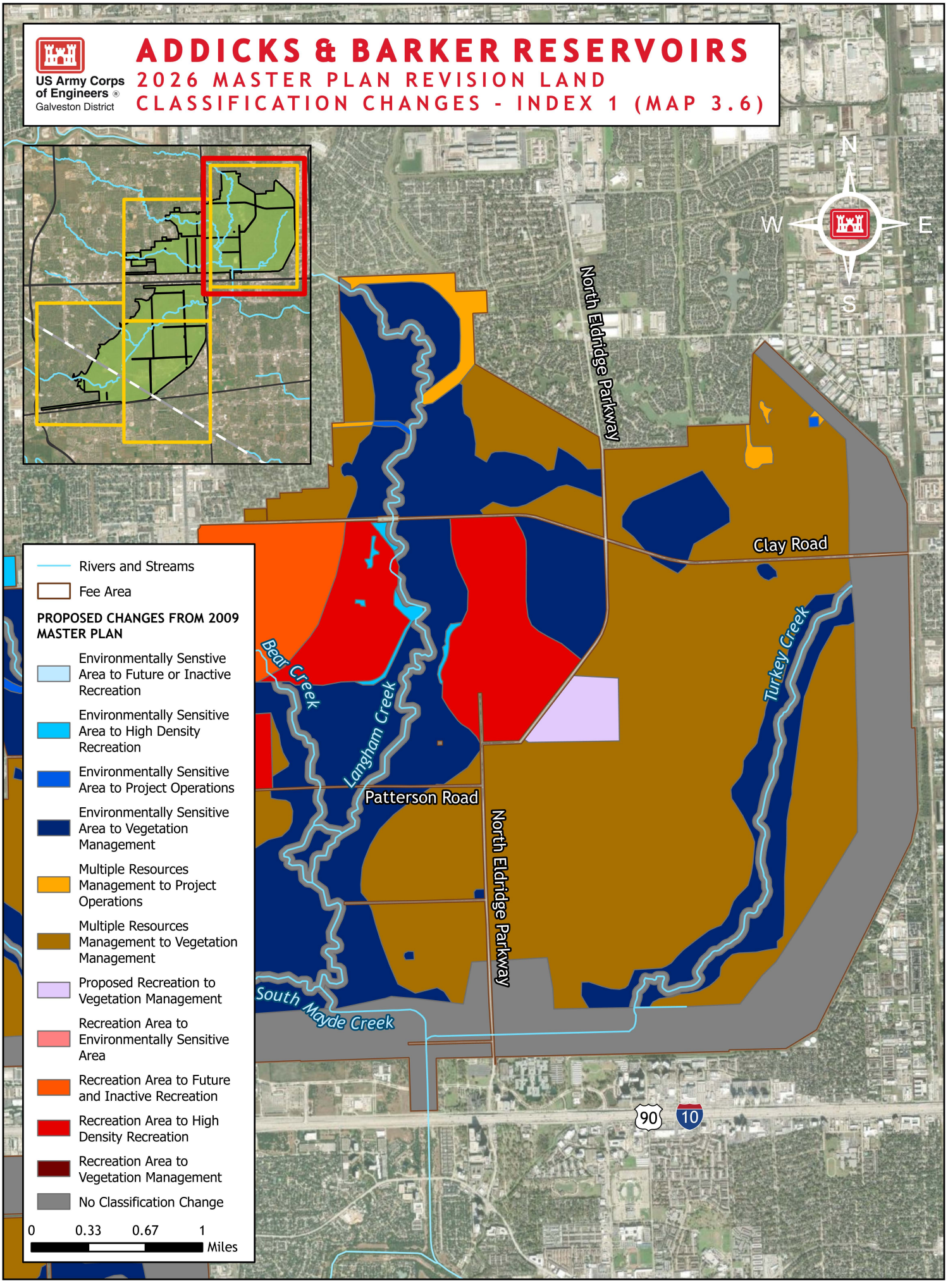

US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION PROPOSED LAND CLASSIFICATIONS - INDEX OVERVIEW (MAP 3.1)
Santa Fe
Oklahoma
New Mexico
Amarillo
Oklahoma City
Dallas
El Paso
Addicks & Barker Reservoirs
Austin
San Antonio
Houston
Chihuahua
Coahuila de Zaragoza
Nuevo Leon
Durango
1
2
3
4
Bear Creek
Langham Creek
Turkey Creek
South Mayde Creek
Buffalo Bayou
Mason Creek
Harris County
Fort Bend County
Westpark Tollway
FM 1093
90
10
9
6
N
W
E
S
Rivers and Streams
Fee Area
Index
0 0.5 1 1.5 2
Miles

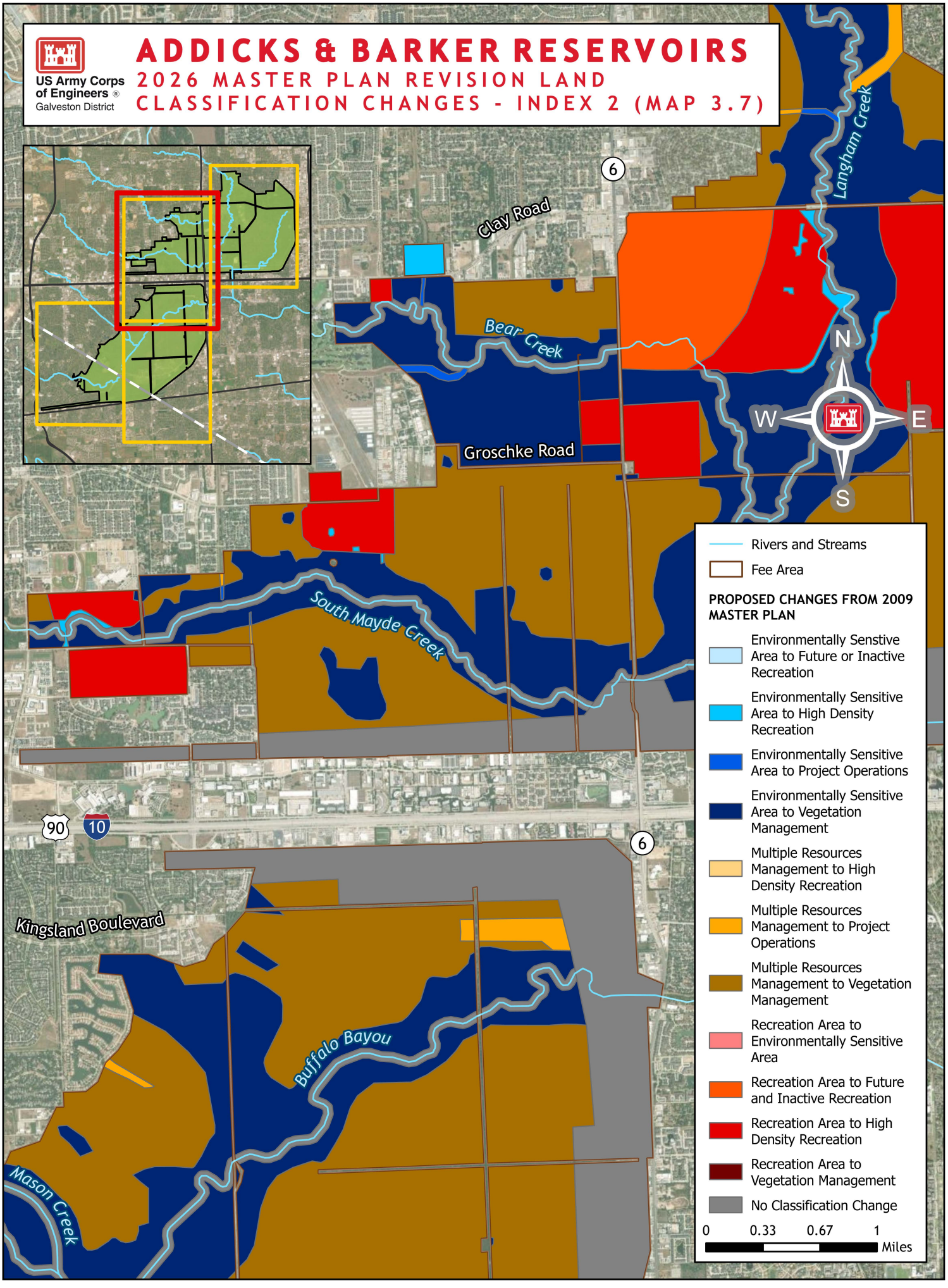

US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATIONS - INDEX 1 (MAP 3.2)
N
W
E
S
North Eldridge Parkway
6
Clay Road
Clay Road
Bear Creek
Turkey Creek
Langham Creek
Groschke Road
Patterson Road
North Eldridge Parkway
South Mayde Creek
90
10
Rivers and Streams
Fee Area
PROPOSED LAND CLASSIFICATIONS
Environmentally Senstive Area
Future and Inactive Recreation
High Density Recreation
Project Operations
Vegetation Management
0
0.33
0.67
1
Miles

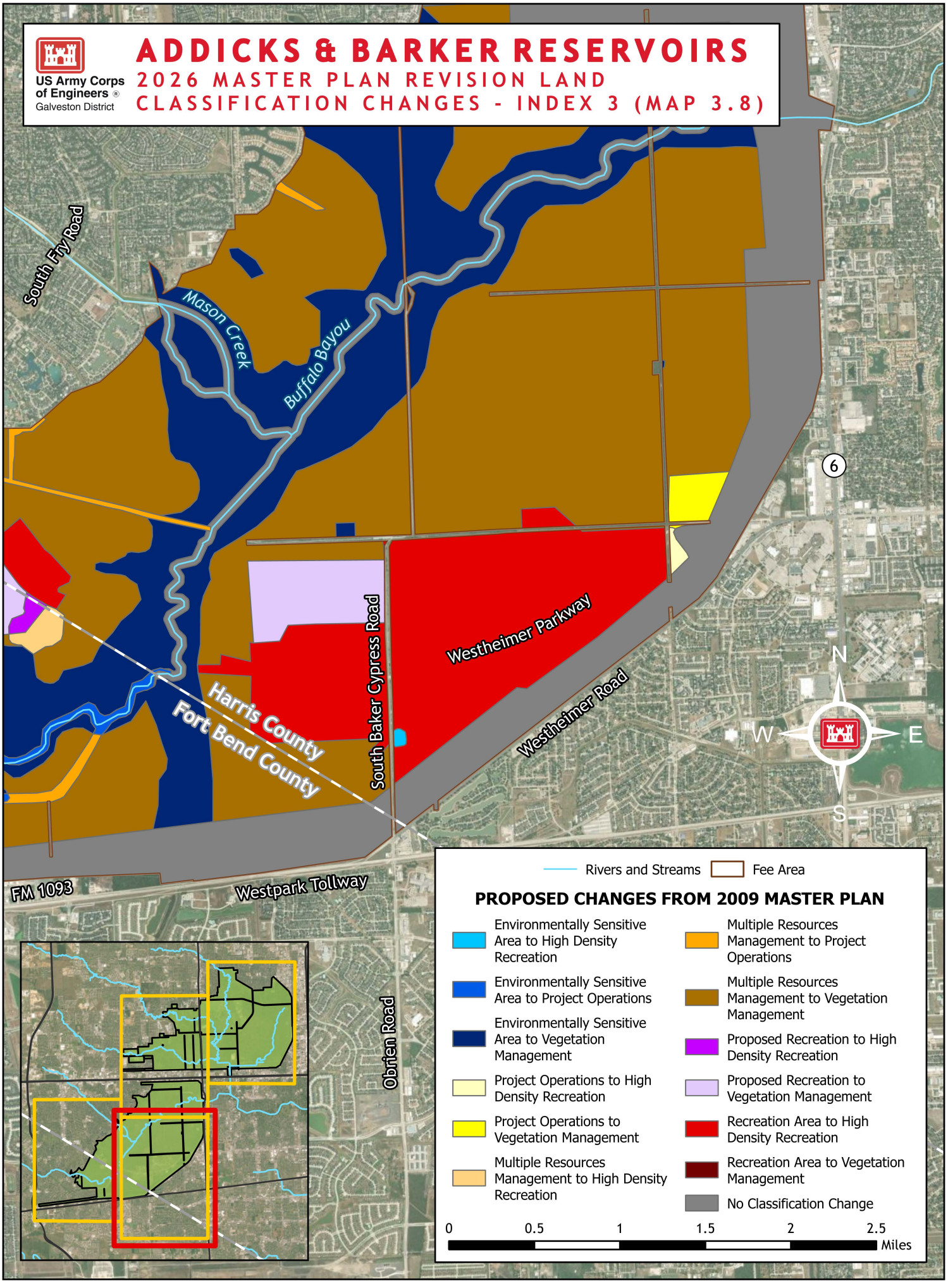

US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATIONS - INDEX 2 (MAP 3.3)
Clay Road
Langham Creek
Bear Creek
Groschke Road
Patterson Road
South Mayde Creek
Kingsland Boulevard
Buffalo Bayou
Mason Creek
90
10
6
N
W
E
S
Rivers and Streams
Fee Area
PROPOSED LAND CLASSIFICATIONS
Environmentally Senstive Area
Future and Inactive Recreation
High Density Recreation
Project Operations
Vegetation Management
0 0.33 0.67 1
Miles

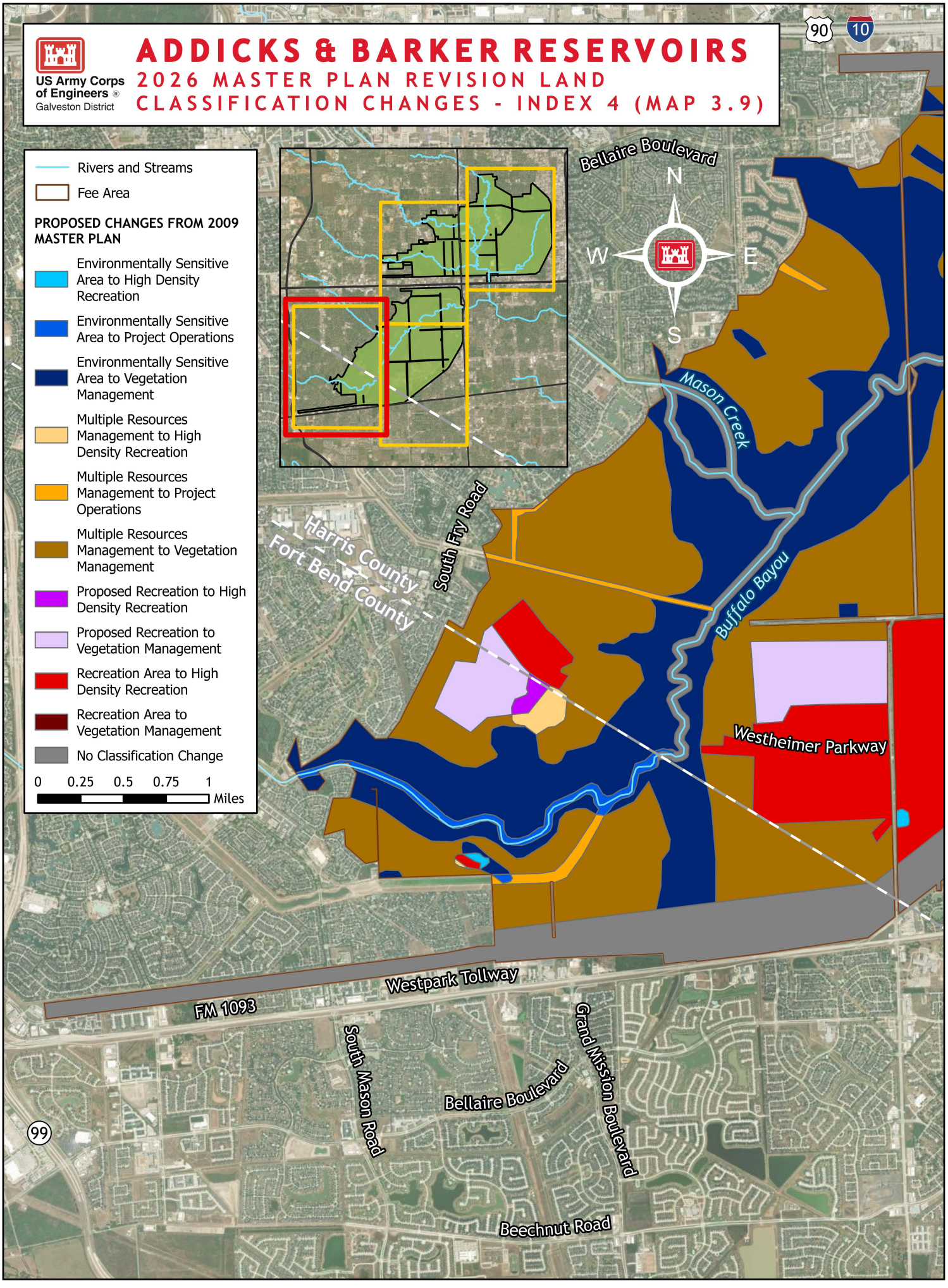

US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATIONS - INDEX 3 (MAP 3.4)
South Fry Road
Mason Creek
Buffalo Bayou
6
South Baker Cypress Road
Westheimer Parkway
Westheimer Road
N
W
E
S
Westpark Tollway
FM 1093
Bellaire Boulevard
Harris County
Fort Bend County
Obrien Road
Rivers and Streams
Fee Area
PROPOSED LAND CLASSIFICATIONS
Environmentally Senstive Area
Future and Inactive Recreation
High Density Recreation
Project Operations
Vegetation Management
0 0.33 0.67 1
Miles


US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATIONS - INDEX 4 (MAP 3.5)
90
10
N
W
E
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Bellaire Boulevard
Mason Creek
South Fry Road
Harris County
Fort Bend County
Buffalo Bayou
Westheimer Parkway
Westpark Tollway
FM 1093
South Mason Road
Bellaire Boulevard
Grand Mission Boulevard
Beechnut Road
99
Rivers and Streams
Fee Area
PROPOSED LAND CLASSIFICATIONS
Environmentally Senstive Area
Future and Inactive Recreation
High Density Recreation
Project Operations
Vegetation Management
0
0.33
0.67
1
Miles


US Army Corps of Engineers ®
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATION CHANGES - INDEX 1 (MAP 3.6)
N
W
E
S
North Eldridge Parkway
Clay Road
Turkey Creek
Bear Creek
Langham Creek
Patterson Road
North Eldridge Parkway
South Mayde Creek
90
10
Rivers and Streams
Fee Area
PROPOSED CHANGES FROM 2009 MASTER PLAN
Environmentally Senstive Area to Future or Inactive Recreation
Environmentally Sensitive Area to High Density Recreation
Environmentally Sensitive Area to Project Operations
Environmentally Sensitive Area to Vegetation Management
Multiple Resources Management to Project Operations
Multiple Resources Management to Vegetation Management
Proposed Recreation to Vegetation Management
Recreation Area to Environmentally Sensitive Area
Recreation Area to Future and Inactive Recreation
Recreation Area to High Density Recreation
Recreation Area to Vegetation Management
No Classification Change
0 0.33 0.67 1
Miles


US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATION CHANGES - INDEX 2 (MAP 3.7)
Clay Road
Bear Creek
Langham Creek
Groschke Road
South Mayde Creek
Kingsland Boulevard
Buffalo Bayou
Mason Creek
90
10
6
N
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S
Rivers and Streams
Fee Area
PROPOSED CHANGES FROM 2009 MASTER PLAN
Environmentally Senstive Area to Future or Inactive Recreation
Environmentally Sensitive Area to High Density Recreation
Environmentally Sensitive Area to Project Operations
Environmentally Sensitive Area to Vegetation Management
Multiple Resources Management to High Density Recreation
Multiple Resources Management to Project Operations
Multiple Resources Management to Vegetation Management
Recreation Area to Environmentally Sensitive Area
Recreation Area to Future and Inactive Recreation
Recreation Area to High Density Recreation
Recreation Area to Vegetation Management
No Classification Change
0 0.33 0.67 1
Miles


US Army Corps of Engineers ®
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATION CHANGES - INDEX 3 (MAP 3.8)
South Fry Road
Mason Creek
Buffalo Bayou
6
Westheimer Parkway
South Baker Cypress Road
Harris County
Fort Bend County
Westheimer Road
N
W
E
S
FM 1093
Westpark Tollway
Obrien Road
Rivers and Streams
Fee Area
PROPOSED CHANGES FROM 2009 MASTER PLAN
Environmentally Sensitive Area to High Density Recreation
Environmentally Sensitive Area to Project Operations
Environmentally Sensitive Area to Vegetation Management
Project Operations to High Density Recreation
Project Operations to Vegetation Management
Multiple Resources Management to High Density Recreation
Multiple Resources Management to Project Operations
Multiple Resources Management to Vegetation Management
Proposed Recreation to High Density Recreation
Proposed Recreation to Vegetation Management
Recreation Area to High Density Recreation
Recreation Area to Vegetation Management
No Classification Change
0
0.5
1
1.5
2
2.5
Miles


US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION LAND CLASSIFICATION CHANGES - INDEX 4 (MAP 3.9)
Rivers and Streams
Fee Area
PROPOSED CHANGES FROM 2009 MASTER PLAN
Environmentally Sensitive Area to High Density Recreation
Environmentally Sensitive Area to Project Operations
Environmentally Sensitive Area to Vegetation Management
Multiple Resources Management to High Density Recreation
Multiple Resources Management to Project Operations
Multiple Resources Management to Vegetation Management
Proposed Recreation to High Density Recreation
Proposed Recreation to Vegetation Management
Recreation Area to High Density Recreation
Recreation Area to Vegetation Management
No Classification Change
0 0.25 0.5 0.75 1 Miles
N
W
E
S
Bellaire Boulevard
Mason Creek
Harris County
Fort Bend County
South Fry Road
Buffalo Bayou
Westheimer Parkway
Westpark Tollway
FM 1093
South Mason Road
Bellaire Boulevard
Grand Mission Boulevard
Beechnut Road
90
10
99

US Army Corps of Engineers ®
Galveston District

ADDICKS RESERVOIR
2026 MASTER PLAN REVISION
RECREATION OVERVIEW (MAP 4.1)

Bear Creek Pioneer Park (Harris County)

"Bear Creek Pioneers Park is 2,154.6 acres in size, and offers over 2 miles of trails. Amenities include an 18 baseball/softball fields, benches, six exercise stations, a picnic area, 14 playgrounds, seven reservable pavilions, Scout camping, 26 soccer fields, three tennis courts, horseshoe courts, two fire pits, an aviary and wildlife habitat, an equestrian trail, 16 restrooms, and two pickleball courts. The park is also home to the Harris County War Memorial..."

Cullen Park (City of Houston)

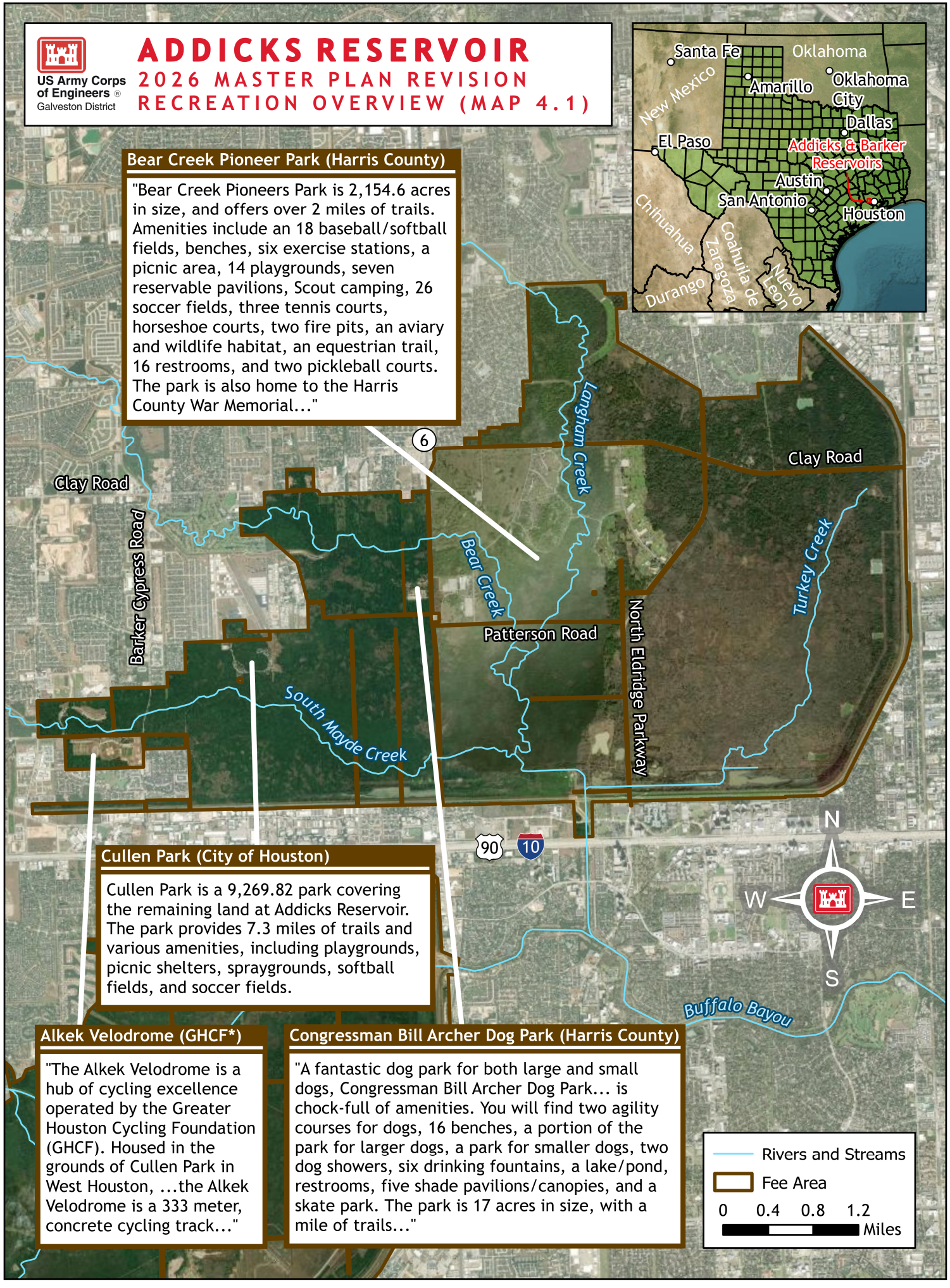
Cullen Park is a 9,269.82 park covering the remaining land at Addicks Reservoir. The park provides 7.3 miles of trails and various amenities, including playgrounds, picnic shelters, spraygrounds, softball fields, and soccer fields.

Alkek Velodrome (GHCF*)

"The Alkek Velodrome is a hub of cycling excellence operated by the Greater Houston Cycling Foundation (GHCF). Housed in the grounds of Cullen Park in West Houston, ...the Alkek Velodrome is a 333 meter, concrete cycling track..."

Congressman Bill Archer Dog Park (Harris County)

"A fantastic dog park for both large and small dogs, Congressman Bill Archer Dog Park... is chock-full of amenities. You will find two agility courses for dogs, 16 benches, a portion of the park for larger dogs, a park for smaller dogs, two dog showers, six drinking fountains, a lake/pond, restrooms, five shade pavilions/canopies, and a skate park. The park is 17 acres in size, with a mile of trails..."



BARKER RESERVOIR
2026 MASTER PLAN REVISION
RECREATION OVERVIEW (MAP 4.2)

US Army Corps of Engineers ®
Galveston District



South Mayde Creek

George Bush Park (Harris County)

"George Bush Park encompasses a whopping 7,800 acres inside the Barker Reservoir. The park hosts a large group of soccer fields, softball/baseball fields, beautiful dog parks for large and small dogs, an equestrian trail, a model airplane field, and 11.36 miles of hike and bike trails ranging over Buffalo Bayou. Additionally, there are three reservable pavilions adjacent to a delightful playground...."

90 10

Buffalo Bayou

Freedom Park (Fort Bend County)

Freedom Park is a 1,961 acre park. The park provides four baseball fields, three soccer fields, a concession stand, several restrooms, a playground, a walking trail, and the Armed Forces Memorial Tower.

South Fry Road

Mason Creek

6

N
W
E
S

Westheimer Parkway

Westheimer Road

Westpark Tollway

Bellaire Boulevard

FM 1093

99

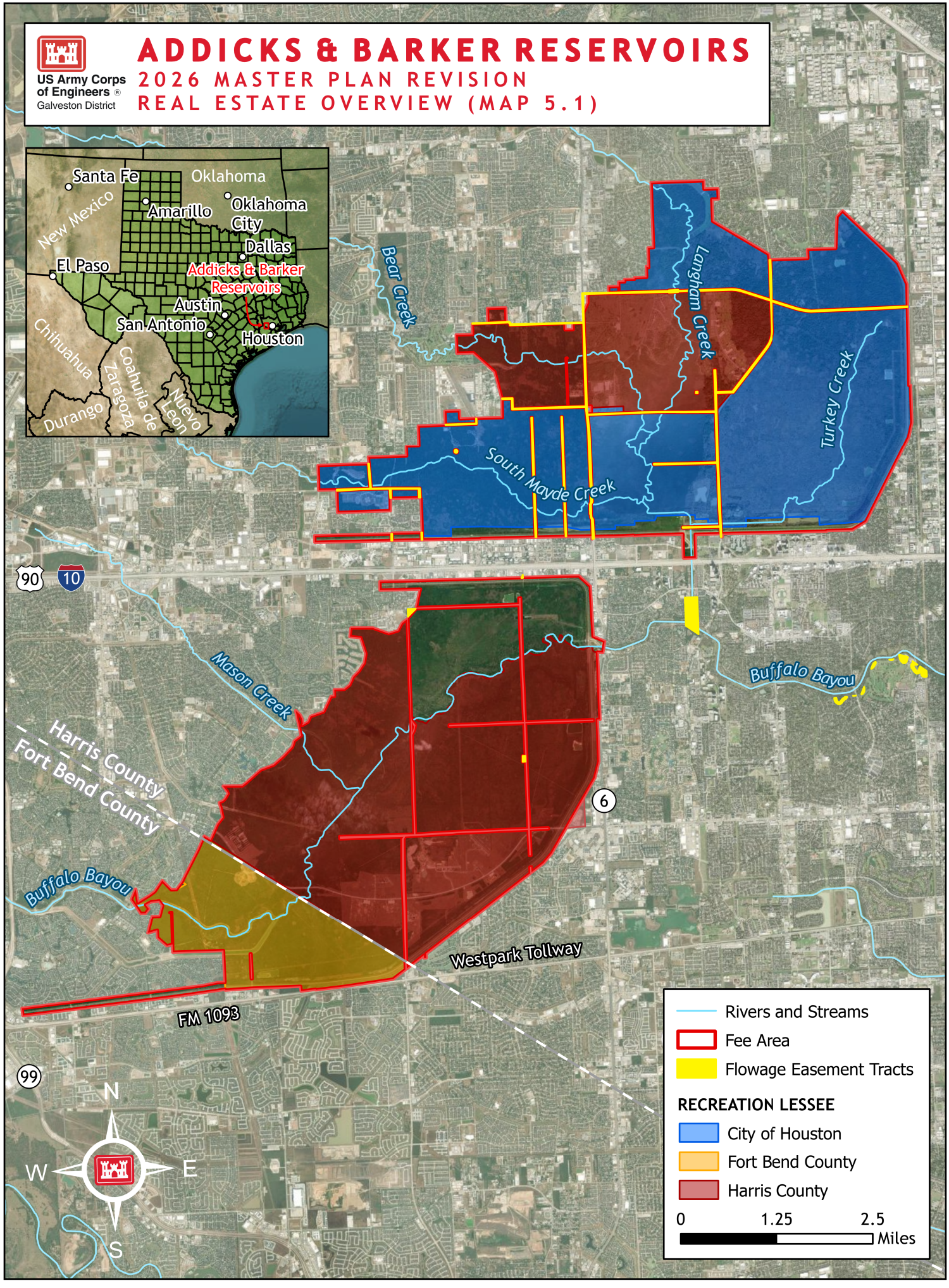
Harris County

Fort Bend County

American Shooting Centers

"American Shooting Centers (ASC) is Texas' largest public facility with trap, skeet, sporting clays, rifle and pistol ranges. ...[ASC's] expansive facility offers top-tier shooting ranges, world-class instruction, and an events center that is ideal for gatherings up to 800 people. Spanning over 563 acres in the iconic George Bush Park, ASC caters to a wide array of sporting disciplines..."

Rivers and Streams
Fee Area
0 0.4 0.8 1.2
Miles


US Army Corps of Engineers
Galveston District
ADDICKS & BARKER RESERVOIRS
2026 MASTER PLAN REVISION
REAL ESTATE OVERVIEW (MAP 5.1)
Santa Fe
Oklahoma
New Mexico
Amarillo
Oklahoma City
Dallas
El Paso
Addicks & Barker Reservoirs
Austin
San Antonio
Houston
Chihuahua
Coahuila de Zaragoza
Nuevo Leon
Durango
Bear Creek
Langham Creek
Turkey Creek
South Mayde Creek
90
10
Mason Creek
Buffalo Bayou
Harris County
Fort Bend County
6
Buffalo Bayou
Westpark Tollway
FM 1093
99
N
W
E
S
Rivers and Streams
Fee Area
Flowage Easement Tracts
RECREATION LESSEE
City of Houston
Fort Bend County
Harris County
0
1.25
2.5
Miles

APPENDIX B – NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION

DRAFT
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
2026 Addicks and Barker Master Plan Revision
Houston, Harris and Fort Bend Counties, Texas

In accordance with the National Environmental Policy Act of 1969, as amended, (42 United States Code [USC] § 4321 *t seq*.), as amended by the Fiscal Responsibility Act of 2023, and the Council on Environmental Quality (CEQ) implementing regulations published by the USACE (33 CFR 230) and associated implementation guidance (ER 200-2-2) (please see explanation of use in Section 1 of the environmental assessment), the Galveston District (Corps) and the Regional Planning and Environmental Center (RPEC) of the U.S. Army Corps of Engineers, have assessed the potential environmental impacts of implementing the Addicks and Barker 2026 Master Plan (MP) revision.

The EA, incorporated herein by reference, evaluated a no action and the proposed action alternatives. The proposed action alternative that would redefine land classification based on current information in the study area and is the preferred alternative. Land classifications were refined to meet authorized project purposes and current resource objectives that address a mix of natural resources and recreation management objectives that are compatible with regional goals, recognize outdoor recreation trends, and are responsive to public comments.

Under the Preferred Alternative, the USACE will adopt and implement the 2026 MP, which guides and articulates USACE responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. The 2026 MP will replace the 2009 MP and provide an up-to-date management plan that follows current Federal laws and regulations while sustaining the project's natural resources and providing recreational opportunities for the next 25 years through the planning horizon of 2050. The Preferred Alternative will meet regional goals associated with good stewardship of land, water, and recreational resources; address identified recreational trends; and allow for continued use and development of project lands without violating national policies or public laws.

The 2026 MP will classify all Federal land in the Addicks and Barker Reservoirs lying above elevation 290 feet NGVD29 and 300 feet horizontal or elevation 310 feet NGVD29 into management reclassification categories. These management reclassification categories will allow uses of Federal property that meet the definition of the assigned category and ensure the protection of natural resources and environmental stewardship while allowing maximum public enjoyment of the lake's resources.

For the alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1:

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Table 1: Summary of Potential Effects of the Recommended Plan

	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Aesthetic Resources	☒	☐	☐
Air quality	☒	☐	☐
Cultural, Historical, and Archaeological Resources	☐	☐	☒
Hazardous, Toxic, Radioactive, or Solid Waste (HTRW)	☐	☐	☒
Health and Safety	☐	☐	☒
Hydrometeorological Conditions and Greenhouse Gas	☒	☐	☐
Invasive Species	☒	☐	☐
Land Use	☒	☐	☐
Natural Resources	☒	☐	☐
Recreation	☒	☐	☐
Socioeconomics and Demographics	☐	☐	☒
Threatened and Endangered Species	☐	☐	☒
Topography, Geology, and Soils	☒	☐	☐
Water Resources	☒	☐	☐

All practicable and appropriate means to avoid or minimize adverse environmental effects have been analyzed and incorporated into the proposed plan. The proposed plan will not entail any ground-disturbing activities. Future ground-disturbing activities on USACE property will be subject to all necessary environmental evaluations and compliance regulations.

No compensatory mitigation is required as part of the recommended plan.

Public review of the draft Master Plan, Environmental Assessment, and Finding of No Significant Impact (FONSI) will be completed on February 20, 2026. All comments submitted during the public review period will be responded to in the final Master Plan.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers has determined that the proposed plan will have no effect on federally listed species or their designated critical habitat.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers has determined that the proposed plan will have no effect on historic properties.

All applicable environmental laws were considered and coordination with appropriate agencies and officials has been completed.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the draft report, the reviews by other Federal, State, and local agencies, Tribes, input of the public, and the review by my staff, it is my

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determination that the proposed plan would not cause significant adverse impacts on the quality of the human environment, therefore, preparation of an Environmental Impact Statement is not required.

_____ DRAFT _____

Date

David W. Dake
Colonel, Corps of Engineers
District Commander

DRAFT

Environmental Assessment for the 2026 Addicks and Barker Master Plan Revision

San Jacinto River Basin

Harris and Fort Bend Counties, Texas

January 2026



US Army Corps of Engineers
Galveston District

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental and socioeconomic impacts of the 2026 Addicks and Barker Master Plan Revision. This EA would facilitate the decision process regarding the Proposed Action and alternatives.

SECTION 1	*INTRODUCTION* of the Proposed Action summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.
SECTION 2	*PROPOSED ACTION AND ALTERNATIVES* examines alternatives for implementing the Proposed Action and describes the recommended alternative.
SECTION 3	*AFFECTED ENVIRONMENT* describes the existing environmental and socioeconomic setting. *ENVIRONMENTAL CONSEQUENCES* identifies the potential environmental and socioeconomic effects of implementing the Proposed Action and alternatives.
SECTION 4	*CUMULATIVE IMPACTS* describes the impact on the environment that may result from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions.
SECTION 5	*COMPLIANCE WITH ENVIRONMENTAL LAWS* provides a listing of environmental protection statutes and other environmental requirements.
SECTION 6	*IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES* identifies any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action
SECTION 7	*PUBLIC AND AGENCY COORDINATION* provides a listing of individuals and agencies consulted during preparation of the EA.
SECTION 8	*REFERENCES* provides bibliographical information for cited sources.
SECTION 9	*ACRONYMS/ABBREVIATIONS*
SECTION 10	*LIST OF PREPARERS* identifies persons who prepared the document and their areas of expertise.
ATTACHMENT A	National Environmental Policy Act (NEPA) Coordination and Scoping

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ENVIRONMENTAL ASSESSMENT

2026 Addicks and Barker Master Plan Revision

Addicks and Barker Reservoirs
Harris and Fort Bend Counties, Texas

SECTION 1: INTRODUCTION

This Environmental Assessment (EA) has been prepared by the United States Army Corps of Engineers (USACE) to evaluate the 2026 Addicks and Barker Master Plan (MP). The 2026 MP is a programmatic document that is subject to evaluation under the National Environmental Policy Act (NEPA) of 1969, (Public Law [PL] 91-190). This document provides an assessment of potential impacts that could result with the implementation of either the No Action or Proposed Action and has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] § 4321 *et seq*.), as amended by the Fiscal Responsibility Act of 2023, and the Council on Environmental Quality (CEQ) implementing regulations published by the USACE (33 CFR 230) and associated implementation guidance including Engineering Regulation (ER) 200-2-2: Procedures for Implementing NEPA (1988).

CEQ regulations implementing NEPA, first issued in 1978, were rescinded on April 11, 2025, pursuant to Executive Order 14154, Unleashing American Energy. However, the NEPA process for this EA began in 2023, prior to any revisions to CEQ's implementing regulations. USACE NEPA guidance issued 30 June 2025 noted any actions which were ongoing as of that date would continue to use the NEPA guidance at the time the action was started. This EA will continue to use NEPA implementing regulations in effect when this EA began, as well as incorporate other applicable Executive Orders, laws, regulations, and policies.

The 2026 MP is a strategic land use management plan that provides direction to the orderly development, administration, maintenance, preservation, enhancement, and management of all natural, cultural and recreational resources of a USACE water resource project, which includes all government-owned lands in and around a reservoir. It is a vital tool for responsible stewardship and sustainability of the project's natural and cultural resources, as well as the provision of outdoor recreation facilities and opportunities on Federal lands associated with Addicks and Barker reservoirs for the benefit of present and future generations. The 2026 MP identifies conceptual types and levels of activities, but does not include designs, project sites, or estimated costs. All actions carried out by the USACE, other agencies, and individuals granted leases to USACE lands must be consistent with the 2026 MP. Therefore, the MP must be revised in order to provide effective guidance in USACE decision-making. The revision of the Addicks and Barker Reservoirs Master Plan is a framework built collaboratively to serve as a guide toward appropriate stewardship of U.S. Army Corps of Engineers (USACE) administered resources at Addicks and Barker Reservoirs over the next 25 years. The 2009 Master Plan has served its intended planning horizon.

1.1 PROJECT LOCATION AND SETTING

Addicks and Barker are located in southeast Texas in the San Jacinto River basin approximately 17 miles west of downtown Houston. The reservoirs are strategically located above the confluence of the Buffalo Bayou and South Mayde Creek. Beyond this confluence, Buffalo Bayou continues east through downtown Houston, where it joins with White Oak Bayou and eventually becomes the Houston Ship Channel, which flows into the San Jacinto Bay. The majority of Addicks and Barker fall within Harris County; however, a small portion of Barker Reservoir crosses into Fort Bend County. Addicks Reservoir is situated on the north side of Interstate Highway 10 (I-10) with State Highway 6 (SH 6) bisecting the reservoir north to south. Barker Reservoir is situated on the south side of I-10, west of SH 6.

Addicks watershed is bound by West Little York Road on the north, West Beltway 8 on the east, IH 10 to the south, and Baker Cypress Road on the west. The watershed is roughly 15 miles long, 10 miles wide, and has a drainage area of approximately 136 square miles. Natural ground elevations in the basin vary from about 197 feet NAVD88 at the upstream divide to 68 feet NAVD88 at Addicks Dam. The main inflow contributors to Addicks are South Mayde Creek, Bear Creek, and their tributaries Horsepen Creek, Dinner Creek, and Langham Creek, during large events, Cypress Creek will overflow into Addicks.

Barker watershed is bounded by IH 10 on the north, SH 6 on the east, Westpark Tollway on the South, and Grand Parkway on the west. Barker watershed consists of Buffalo Bayou above Barker Dam and lies within Harris, Waller, and Fort Bend Counties. The watershed is a roughly trapezoidal area of approximately 130 square miles, is about 23 miles long with an average width of 6 miles. Natural ground elevations vary from 197 feet NAVD88 at the upstream divide to about 70 feet NAVD88 at the Barker Dam. Natural streamflow gradients in the basin are uniform at about 5 feet per mile sloping in a southerly direction.

The existing Land Classifications from the 2009 Addicks and Barker MP are presented alongside the proposed Land Classifications for the 2026 Addicks and Barker MP in Table 1. Descriptions of each Land Classification type are included at the beginning of Section 2 of this EA.

Table 1 – Proposed Changes from 2009 Land Classifications to 2026 Land Classifications – Addicks Reservoir

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	1,924	Project Operations (PO)	2,048	124
Recreation Areas	1,595	High Density Recreation (HDR)	1,217	(378)
Multiple Resources Management Lands (MRM)	5,610	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	9,174	3,564
Future and Inactive Recreation	101	Future or Inactive Recreation (MRML-FOIR)	443	342
Environmentally Sensitive Area (ESA)	4,317	Environmentally Sensitive Area (ESA)	665	(3,652)
LAND TOTAL	**13,547**	**LAND TOTAL**	**13,547**	**0**

* Total Acreage differences from the 2009 total to the 2026 totals are due to improvements in measurement technology, real estate actions, deposition/siltation, and erosion.

Table 2 - Proposed Changes from 2009 Land Classifications to 2026 Land Classifications – Barker Reservoir

Prior Land Classifications (2009)	Acres	Proposed Land Classifications (2026)	Acres	Net Difference
Project Operations	2,188	Project Operations (PO)	2,332	144
Recreation Areas	1,363	High Density Recreation (HDR)	1,431	68
Multiple Resources Management Lands (MRM)	5,655	Multiple Resource Management Lands (MRML) Vegetative Management (MRML-VM)	8,390	2,735
Future and Inactive Recreation	336	Future or Inactive Recreation (MRML-FOIR)	0	(336)
Environmentally Sensitive Area (ESA)	2,910	Environmentally Sensitive Area (ESA)	299	(2,611)
LAND TOTAL	**12,452**	**LAND TOTAL**	**12,452**	**0**

* Total Acreage differences from the 2009 total to the 2026 totals are due to improvements in measurement technology, real estate actions, deposition/siltation, and erosion.

1.2 PURPOSE AND NEED FOR THE ACTION

The revision of the *Addicks and Barker Master Plan* (hereafter Master Plan) is a framework built collaboratively to serve as a guide toward appropriate stewardship of U.S. Army Corps of Engineers (USACE) administered resources at Addicks and Barker over the next 25 years. The 2009 Master Plan has served its intended planning horizon. The Master Plan is primarily a land use and outdoor recreation strategic plan. The dam's primary purpose is flood risk management. Outdoor recreation and fish and wildlife conservation are also important missions. Environmental stewardship of Federal lands is an inherent mission at all USACE projects.

The 2009 Master Plan classifies a total of 26,100 acres of USACE fee land. Due to more advanced measurement technology these numbers have been revised and the boundaries adjusted based on mapping completed in that same time period. For planning purposes, Addicks and Barker encompasses 26,367 acres of total fee lands, based on Geographical Information System (GIS) mapping of the 2009 land use plan. Construction of the dams began in May 1946 and was formally completed and operational by 1948 to mitigate flooding in the Houston areas. This Master Plan revision and supporting documentation provides an inventory, analysis, goals, objectives, and recommendations for USACE lands at Addicks and Barker, Texas.

1.3 SCOPE OF THE ACTION

This EA was prepared to evaluate existing conditions and potential impacts of proposed alternatives associated with the implementation of the 2026 Master Plan (MP). The alternative considerations were formulated with special attention given to revised land classifications, new resource management objectives, and a conceptual resource plan for each land reclassification category. The 2026 MP is currently available and is incorporated into this EA by reference. This EA was prepared pursuant to the National Environmental Policy Act (NEPA), (Public Law 91-190) as amended. The application of NEPA to more strategic decisions not only meets the Council on Environmental Quality (CEQ) implementing regulations (CEQ 2005) and USACE regulations for implementing NEPA (USACE 1988), but also allows the USACE to consider the environmental consequences of its actions long before any physical activity is implemented.[1] Multiple benefits can be derived from such early consideration. Effective and early NEPA integration with the master planning process can significantly increase the usefulness of the 2026 MP to the decision maker.

[1] NEPA reviews for non-regulatory, non–Section 408 civil works actions ongoing as of the effective date of the NEPA rule change will continue under the rule in place at the time the action began. (90 FR 29463).

SECTION 2: PROPOSED ACTION AND ALTERNATIVES

During the alternative development process, the Project Delivery Team (PDT) utilized an iterative process to evaluate different land classes for each parcel of USACE land. This evaluation included consideration of the multiple Congressionally authorized missions of the Project, public and agency comments, USACE staff knowledge, and potential impacts to the social, cultural, and environmental resources, to determine the primary use for each parcel (i.e. land classification). USACE regulations specify five possible categories of land reclassification: Project Operations (PO), High Density Recreation (HDR), Mitigation, Environmentally Sensitive Areas (ESA), and Multiple Resource Managed Lands (MRML). MRML are divided into four subcategories: Low Density Recreation (MRML-LDR), Wildlife Management (MRML-WM), Vegetation Management (MRML-VM), and Inactive/Future Recreation (MRML-IFR) Areas.

Two alternatives were developed in detail and brought forward for evaluation, including a No Action Alternative and a Proposed Action Alternative. The Proposed Action Alternative is the culmination of the iterative evaluation process described above and best meets the Purpose and Need identified in Section 1.2 of this document and Section 1.3 of the 202 MP revision. The No Action Alternative, while it does not meet the purpose and need, serves as a benchmark of existing conditions against which Federal actions can be evaluated, and, therefore, is included in this EA pursuant to CEQ regulation 40 CFR § 1502.14(c)).

The goals for the 2026 MP include the following:

GOAL A. Provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes.

GOAL B. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs.

GOAL C. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources.

GOAL D. Recognize the project's unique qualities, characteristics, and potentials.

GOAL E. Provide consistency and compatibility with national objectives and other State and regional goals and programs.

In addition to the above goals, USACE management activities are guided by USACE-wide Environmental Operating Principles as follows:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse, and sustainable condition is necessary to support life.
- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of USACE programs and act accordingly in all appropriate circumstances.

- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seek ways and means to assess and mitigate cumulative impacts to the environment; bringing systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.
- Respect the views of individuals and groups interested in USACE activities; listen to them actively and learn from their perspective in the search to find innovative win-win solutions to the nation's problems that also protect and enhance the environment.

Specific resource objectives to accomplish these goals can be found in Chapter 3 of the 2026 MP.

The USACE will not address the flood risk management or water supply authorized purposes of Addicks and Barker Reservoirs under either the No Action or Proposed Action alternatives. Table 3 catalogs each change proposed by the 2026 MP and the associated justification for that change.

Table 3 - Changes and Justifications for Proposed Land Classifications – Addicks Reservoir

Land Classification	Description of Changes [2]	Justification
Project Operations (PO)	The net increase in Project Operations (PO) lands from 1,924 to 2,048 acres is due to the following: • 21 acres Environmentally Sensitive Area (ESA) reclassified to PO. • 103 acres MRML reclassified to PO.	All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary mission of flood risk management. Approximately 103 acres of Multiple Resource Management and 21 acres of Environmentally Sensitive Area were reclassified to PO. These changes place lands leased to the Harris County Flood Control District for flood risk mitigation and other operational areas in PO.

Land Classification	Description of Changes [2]	Justification
High Density Recreation (HDR)	The net increase in High Density Recreation lands from 0 to 1,217 acres is due to the following: • 66 acres of ESA reclassified to HDR. • 1,151 acres Recreation reclassified to HDR.	HDR was not utilized as a land classification in the 2009 MP. The increase in HDR acres is largely due to the updated land classification name for the previous classification of Recreation Areas. 1,151 acres previously classified as Recreation Areas were reclassified as HDR to align with the updated name change. Approximately 66 acres previously classified as ESA were reclassified as HDR to capture areas currently managed as HDR.
Multiple Resource Management Lands-Vegetation Management (MRML-VM)	The net increase in Vegetation Management from 5,610 acres to 9,174 acres resulted from the following: • 5,506 acres MRML reclassified to Vegetation Management • 101 acres of FOIR reclassified to Vegetation Management • 3,567 acres of ESA reclassified to Vegetation Management	MRML-VM was not utilized as a land classification in the 2009 MP. The increase in MRML-VM is largely due to the updated land class classification name. Approximately 5,506 acres were previously classified as MRM and are now reclassified as MRML-VM. This is due to the updated naming of the classification. 3,567 acres of ESA were classified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 101 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas are no longer considered for intensive recreation.

Land Classification	Description of Changes [2]	Justification
Future or Inactive Recreation (MRML-FOIR)	The net increase in MRML-FOIR from 101 acres to 443 acres is due to the following: • 443 acres of Recreation Areas reclassified to MRML-FOIR	443 acres previously classified as Recreation Area Lands, including the golf course, were reclassified as MRML-FOIR. These acres are no longer in active recreation management but may be redeveloped in the future.
Environmentally Sensitive Area (ESA)	The net decrease in Environmentally Sensitive Area from 4,317 acres to 665 acres is due to the following: • 66 acres ESA reclassified to HDR • 22 acres ESA reclassified to PO • 3,567 acres of ESA reclassified to Vegetation Management.	ESA acres decreased in part due to the 2009 MP classification of all major wetlands and bottomland hardwood vegetation communities as ESAs. This diminished the flood risk management mission and led to development within ESA acres. To provide the project the most flexibility and centralize protection in the most critical areas, the 202 MP classifies riparian and bottomlands areas within 150 feet linearly of named rivers and streams within the fee boundary. Of the ESA acres outside this 300-foot wide riparian zone, 3,567 were reclassified as MRML-VM, 66 as HDR, and 22 as PO.

(1) The land classification changes described in this table are the result of changes to individual parcels of land ranging from a few acres to several hundred acres. New acreages were measured using more accurate GIS technology, thus total changes will not equal individual changes. The acreage numbers provided are approximate.
(2) Acreages are based on GIS measurements and may vary from net difference detailed in Table 1.

Table 4 - Changes and Justifications for Proposed Land Classifications – Barker Reservoir

Land Classification	Description of Changes (2)	Justification
Project Operations (PO)	Net increase in PO lands from 2,188 to 2,332 acres due to the following: • 83 acres ESA reclassified to PO. • 126 acres MRML reclassified to PO.	All lands classified as PO are managed and used primarily in support of critical operational requirements related to the primary mission of flood risk management. Approximately 126 acres of Multiple Resource Management and 83 acres of Environmentally Sensitive were reclassified to PO. These changes place lands leased to the Fort Bend County Drainage District for flood risk mitigation and other operational areas in PO.
High Density Recreation (HDR)	Net increase in HDR from 1,363 to 1,431 acres due to the following: • 9 acres of ESA reclassified to HDR. • 1,363 acres Recreation reclassified to HDR. • 32 acres of MRML reclassified to HDR	The 2009 MP classified 1,363 acres as Recreation Areas. These acres were reclassified as HDR. Approximately 32 acres of Multiple Resources Management Lands and 9 acres of ESA were classified as HDR as well, expanding into areas already being used for intensive recreation.
Multiple Resource Management Lands – Vegetative Management (MRML-VM)	Net increase in MRML-VM from 5,655 to 8,390 acres due to the following: • 5,497 acres MRML reclassified to Vegetation Management • 320 acres of FOIR reclassified to Vegetation Management 2,520 acres of ESA reclassified to Vegetation Management	The increase in acres is largely due to the new naming of land classifications. Approximately 5,497 acres previously classified as MRM were reclassified as MRML-VM. 2,520 acres previously classified as ESA were reclassified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 320 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas no longer are being considered for intensive recreation.

Land Classification	Description of Changes [2]	Justification
Future or Inactive Recreation (MRML-FOIR)	No change.	The 2009 MP included Future and Inactive Recreation as a land classification. While this land classification category no longer exists due to policy updates, the intent of the current FOIR classification is the same. The 2009 MP classified 320 acres of Future and Inactive Recreation which were reclassified as MRML-VM because they are no longer being considered for intensive recreation. 16 acres of Future and Inactive Recreation were reclassified as HDR as this area is now being used for intensive recreation.
Environmentally Sensitive (ESA)	Net decrease in ESA from 2,910 to 299 acres due to the following: • 83 acres ESA reclassified to HDR • 9 acres ESA reclassified to PO • 2,520 acres of ESA reclassified to Vegetation Management.	ESA acres decreased in part due to the 2009 MP classification of all major wetlands and bottomland hardwood vegetation communities as ESAs. This diminished the flood risk management mission and led to development within ESA acres. To provide the project the most flexibility and centralize protection in the most critical areas, the 2026 MP classifies riparian and bottomlands areas within 150 feet linearly of named rivers and streams within the fee boundary. Of the ESA acres outside this 300-foot wide riparian zone, 2,520 were reclassified as MRML-VM, 83 as HDR, and 9 as PO.

2.1 ALTERNATIVE 1: NO ACTION ALTERNATIVE

The No Action Alternative serves as a basis for comparison to the anticipated effects of the other action alternatives, and its inclusion in this EA is required by NEPA and CEQ regulations (40 CFR § 1502.14(d)). Under the No Action Alternative, the USACE would not revise the 2009 MP or adopt the implementation of the 2026 MP. Instead, the USACE would continue to manage Addicks and Barker Reservoirs natural resources as set forth in the 2009 MP. The 2009 MP would continue to provide the only source of comprehensive management guidelines and philosophy.

2.2 ALTERNATIVE 2: PROPOSED ACTION

Under the Proposed Action, the USACE will adopt and implement the 2026 MP, which guides and articulates USACE responsibilities pursuant to Federal laws to preserve, conserve, restore, maintain, manage, and develop the land, water, and associated resources. The 2026 MP will replace the 2009 MP and provide an up-to-date management plan that follows current Federal laws and regulations while sustaining the

project's natural resources and providing recreational opportunities for the next 25 years through the planning horizon of 2050. The Proposed Action will meet regional goals associated with good stewardship of land, water, and recreational resources; address identified recreational trends; and allow for continued use and development of project lands without violating national policies or public laws.

The 202 MP will classify all Federal land lying above elevation 290 feet NGVD29 and 300 feet horizontal or elevation 310 feet NGVD29 into management reclassification categories. These management reclassification categories will allow uses of Federal property that meet the definition of the assigned category and ensure the protection of natural resources and environmental stewardship while allowing maximum public enjoyment of the lake's resources.

The land reclassification categories to be used are defined as follows:

- Project Operations: Lands required for the dam, spillway, switchyard, levees, dikes, offices, maintenance facilities, and other areas used solely for the operation of Addicks and Barker Reservoir.
- High Density Recreation: Lands developed for intensive recreational activities for the visiting public, including day use areas, campgrounds, marinas, and related concession areas.
- Environmentally Sensitive Areas: Areas where scientific, ecological, cultural, or aesthetic features have been identified.
- Multiple Resource Management Lands (MRML): Allows for the designation of a predominate use with the understanding that other compatible uses may also occur on these lands.
    - MRML Low Density Recreation: Lands with minimal development or infrastructure that support passive recreational use (primitive camping, fishing, hunting, trails, wildlife viewing, etc.)
    - MRML Wildlife Management: Lands designated for stewardship of fish and wildlife resources.
    - MRML Vegetation Management: Lands designated for stewardship of vegetative resources.
    - MRML Inactive/Future Recreation: Areas with site characteristics compatible with potential future recreational development or recreation areas that are closed. Until there is an opportunity to develop or reopen these areas, they will be managed for multiple resources.

- Surface Water: Allows for surface water zones.
    - Restricted: Water areas restricted for Addicks and Barker Reservoir operations, safety, and security.
    - Designated No-Wake: Water areas to protect environmentally sensitive shoreline areas and recreational water access areas from disturbance and areas to protect public safety.
    - Open Recreation: Water areas available for year-round or seasonal water-based recreational use

Table 1 and 2 shows the prior land classifications from the 2009 MP, the proposed land classifications from the 202 MP, and the net difference between the two.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

As previously discussed in this Section, other alternatives to the Proposed Action were initially considered as part of the alternative development process for the MP revision. However, none met the Purpose and Need for the Proposed Action, current USACE regulations and guidance, or addressed public and agency comments or concerns. Therefore, no other alternatives are being carried forward for analysis in this EA.

SECTION 3: AFFECTED ENVIRONMENT AND CONSEQUENCES

This section of the EA describes the potential impacts of the No Action and Proposed Action alternatives on the natural, cultural, and social resources found within the USACE Addicks and Barker Reservoirs Fee Boundary. A description of the existing conditions of resources can be found in Chapter 2 of the 2026 MP. Only those resources that have the potential to be affected by implementation of either alternative will be analyzed in this EA.

Impacts (consequence or effect) can be either beneficial or adverse and can be either directly related to the action or indirectly caused by the action. Direct effects are caused by the action and occur at the same time and place (40 CFR § 1508.1 [g]). Indirect effects are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable (40 CFR § 1508.1 [g]). As discussed in this section, the alternatives may create temporary (less than 1 year), short-term (up to 3 years), long-term (3 to 10 years following the master plan revision), or permanent effects.

In considering whether the effects of the Proposed Action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action (40 CFR § 1501.3). In considering the potentially affected environment, agencies should consider, as appropriate to the specific action, the affected area (national, regional, or local) and its resources, such as listed species and designated critical habitat under the Endangered Species Act (40 CFR § 1501.3[b](1)). In considering the degree of the effects, agencies should consider the following, as appropriate to the specific action: both short-and long-term effects, both beneficial and adverse effects, effects on public health and safety, effects that will violate Federal, State, Tribal, or local law protecting the environment (40 CFR § 1501.3[b](2)). For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. The intensity thresholds are defined as follows:

- Negligible: A resource would not be affected, or the effects would be at or below the level of detection, and changes would not be of any measurable or perceptible consequence.
- Minor: Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.
- Moderate: Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- Major: Effects on a resource would be obvious and long-term, and would have substantial consequences on a regional scale. Mitigation measures to offset the adverse effects would be required and extensive, and success of the mitigation measures would not be guaranteed.

3.1 LAND USE

Please refer to Sections 1.3 and 4.2 of the 2026 MP for existing land use information in and around Addicks and Barker Reservoirs.

3.1.1 Alternative 1: No Action Alternative

Under the No Action Alternative, USACE would not implement the 2026 MP, and existing land use management would not be updated to reflect current and projected future needs and demands. The operation and maintenance of USACE lands at Addicks and Barker Reservoirs would continue as outlined in the 2009 MP to the extent that current and future laws and regulations would permit. Management would have difficulty meeting the current and future recreational needs identified through scoping efforts and USACE Project staff experience and recommendations. If the 2009 MP is kept and implemented, this would not align with current and future operations and recreation trends or needs for the reservoirs. This divergence would create a patchwork of management requirements that would be inefficient for Addicks and Barker Reservoirs staff to implement. The management would also increasingly lack transparency to the public, or alternately create more of a burden to staff to communicate how the lake management differs from that in the 2009 MP. Implementation of the No Action Alternative would have moderate, adverse, long-term impacts on land use within and on fee-owned Addicks and Barker Reservoirs project lands due to conflicting guidance and management of USACE lands.

3.1.2 Alternative 2: Proposed Action

The objectives for revising the 2009 MP describe current and foreseeable land uses while considering expressed public opinion, regional trends, and USACE policies that have evolved to meet day-to-day operational needs. The reclassifications in the 2026 MP were developed to help fulfill regional goals associated with good stewardship of land and water resources that will allow for continued use and development of project lands.

The current and foreseeable land use demand and patterns for Addicks and Barker Reservoirs does not entail the need of utility corridors, therefore, none will be implemented in the 2026 MP. However, if needed, current USACE policy dictates that all utilities must go around USACE property unless no other feasible alternative exists. If a feasible alternative does not exist, then the utility must go through the NEPA permitting process prior to approval and implementation.

The majority of the land use reclassifications in the 2026 MP will maintain and improve the functional management that is currently occurring. While the terminology updates appear substantial, they have been implemented after considerable public input and seek to maintain the values the public holds highest at Addicks and Barker Reservoirs. Additionally, the land reclassifications provide a balance between public use, both intensive and passive, and natural resources conservation. Therefore, the implementation of the proposed action will have moderate, long-term beneficial impacts

to land use as the land reclassifications further refine areas for appropriate activities and provide more efficient land management.

3.1.2.1 Proposed Action – Addicks Reservoir

While HDR is a new management classification for Addicks Reservoir, the bulk of the 1,217 acres of HDR land is from areas previously classified as Recreation Areas. The increase in HDR acres is largely due to the updated land classification name for the previous classification of Recreation Areas. 1,151 acres previously classified as Recreation Areas were reclassified as HDR to align with the updated name change. Approximately 66 acres previously classified as ESA were reclassified as HDR to capture areas currently managed as HDR. The proposed change in HDR lands reflects current and foreseeable recreational trends for the area and would not impact recreational opportunities at Addicks Reservoir.

MRML-Vegetation Management lands designated for stewardship of forest, prairie, and other native vegetative cover total 9,174 acres. The increase in MRML-VM is largely due to the updated land class classification name. Approximately 5,506 acres were previously classified as MRM and are now reclassified as MRML-VM. This is due to the updated naming of the classification. 3,567 acres of ESA were classified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 101 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas are no longer considered for intensive recreation. Future uses may include designating additional natural surface hike/bike trails. Even though these areas are managed for recreational purposes, this designation provides more protection for wildlife and vegetation than HDR, but less than ESA.

Approximately 443 acres previously classified as Recreation Area Lands, including the golf course, were reclassified as MRML-FOIR. These acres are no longer in active recreation management but may be redeveloped in the future.

3.1.2.2 Proposed Action – Barker Reservoir

While HDR is a new management classification for Addicks and Barker Reservoirs, the bulk of the 1,431 acres of HDR land is from areas previously classified as Recreation Areas. The increase in HDR acres is largely due to the updated land classification name for the previous classification of Recreation Areas. 1,363 acres previously classified as Recreation Areas were reclassified as HDR to align with the updated name change. Approximately 32 acres of Multiple Resources Management Lands and 9 acres previously classified as ESA were reclassified as HDR to capture areas currently managed as HDR. The proposed change in HDR lands reflects current and foreseeable recreational trends for the area and would not impact recreational opportunities at Addicks Reservoir.

MRML-Vegetation Management lands designated for stewardship of forest, prairie, and other native vegetative cover total 8,390 acres. The increase in MRML-VM is largely due to the updated land class classification name. Approximately 5,497 acres

were previously classified as MRM and are now reclassified as MRML-VM. 2,520 acres of ESA were classified as MRML-VM to better align with bottomland hardwoods management objectives while allowing continued flood risk management improvement projects. 320 acres previously classified as Future and Inactive Recreation were reclassified as MRML-VM because those areas are no longer considered for intensive recreation. Future uses may include designating additional natural surface hike/bike trails. Even though these areas are managed for recreational purposes, this designation provides more protection for wildlife and vegetation than HDR, but less than ESA.

There was no change to MRML-FOIR lands. While this land classification category no longer exists due to policy updates, the intent of the current FOIR classification is the same. The 2009 MP classified 319 acres of Future and Inactive Recreation which were reclassified as MRML-VM because they are no longer being considered for intensive recreation. 16 acres of Future and Inactive Recreation were reclassified as HDR as this area is now being used for intensive recreation.

3.2 WATER RESOURCES

Please refer to 2.5 in the 2026 MP for more information on existing conditions for hydrology (including surface and ground water), water quality, and wetlands, respectively.

3.2.1 Alternative 1: No Action Alternative

There would be no impacts to any water resources as a result of implementing the No Action Alternative, since there would be no changes or additions to the existing 1975 MP that would affect any of these resources.

3.2.2 Alternative 2: Proposed Action

3.2.2.1 Proposed Action – Addicks Reservoir

The 2026 MP would present minor, long-term, positive benefits to water resources due to the net decrease in overall recreation lands from 1,595 acres to 1,217 acres (1,217 acres of HDR). The overall decrease in recreation areas would decrease anthropogenic disturbance to habitat and vegetation across the reservoir, which could decrease erosion. The 9,174 acres increase in vegetation management areas would help to conserve, protect, and manage habitat and vegetation that help to reduce erosion due to shoreline stabilization. Increased shoreline stabilization and decreased erosion may also help improve water clarity and therefore quality, also providing benefits to water resources.

3.2.2.2 Proposed Action – Barker Reservoir

The 2026 MP would present minor, long-term, benefits to water resources due to the net increase in overall recreation lands from 1,363 acres to 1,431 acres (1,431 acres of HDR). The overall increase in recreation areas would increase anthropogenic disturbances to habitat and vegetation across the reservoir, which could increase erosion. The 8,390 acres increase in vegetation management areas would help to

conserve, protect, and manage habitat and vegetation that help to reduce erosion due to shoreline stabilization. Increased shoreline stabilization and decreased erosion may also help improve water clarity and therefore quality, also providing benefits to water resources.

3.3 HYDROMETEOROLOGICAL CONDITIONS AND GREENHOUSE GAS

For more information on existing conditions for Climate, Hydrometeorological Conditions, and Greenhouse Gas, please refer to section 2.2 of the 202 MP.

3.3.1 Alternative 1: No Action Alternative

The No Action Alternative would not result in any changes in climate, climate change, or GHG management at Addicks and Barker Reservoirs. Implementation of the 2009 MP would have no impact (beneficial or adverse) on existing or future climate conditions. Current policy (Executive Orders [EO] 13834 and 13783, and related USACE policy) requires project lands and recreational programs be managed in a way that advances broad national natural changing conditions mitigation goals including, but not limited to, changing conditions resilience and carbon sequestration. Changing conditions and GHG policies were not evaluated in the 2009 MP, as such the 2009 MP does not align with current laws and regulations. This non-compliance has no impact on changing conditions and GHG because the 2009 MP does not have any action that impacts existing conditions.

3.3.2 Alternative 2: Proposed Action

The 2026 MP will have negligible, long-term, beneficial impacts to climate, changing conditions, and GHG emissions in the region. These benefits will come from the promotion of land management practices and design standards that promote sustainability. Management under the 2026 MP will follow current USACE policy to meet changing condition goals as described for the No Action Alternative. Any ground disturbing activities considered under the 2026 MP will be evaluated and analyzed for impacts to climate under NEPA and design processes prior to implementation. The 2026 MP does not entail any activities that would contribute to a detectable change in GHG emissions in the region.

3.4 AIR QUALITY

For more information on existing conditions for Air Quality at Addicks and Barker Reservoir and the surrounding area, please refer to Section 2.3 in the 2026 MP.

3.4.1 Alternative 1: No Action Alternative

The continued implementation of the 2009 MP would not result in any changes to current and reasonably foreseeable future air quality in the region. No new increase in vehicular traffic, mass permanent vegetation removal, or large construction activities would occur as result of implementing this alternative. The No Action Alternative would remain compliant with the Clean Air Act because the 2009 MP only includes guidelines

and does not incorporate actions which produce or contribute to criteria pollutants. The No Action Alternative will not produce any impacts on air quality.

The 2026 MP will result in an overall increase to the air quality in the region due to the increase of vegetation management areas. The Proposed Action will not implement any actions (i.e. ground disturbing activities) that directly or indirectly produce criteria pollutants (i.e. total emissions are 0); therefore, implementation of the Proposed Action will remain compliant with the Clean Air Act and State Implementation Plan and is not subject to a conformity determination.

3.4.2 Alternative 2: Proposed Action

3.4.2.1 Proposed Action – Addicks Reservoir

Long-term, negligible air quality benefits may be realized as a result of the recreational land and MRML-Vegetation Management increase from 7,205 acres to 10,391 acres (1,217 acres of HDR and 9,175 acres of vegetation management). The added protection these reclassifications provide will benefit native vegetation communities that filter and sequester air pollutants.

3.4.2.2 Proposed Action – Barker Reservoir

Long-term, negligible air quality benefits may be realized as a result of the recreational land and MRML-Vegetation Management increase from 7,018 acres to 9,821 acres (1,431 acres of HDR and 5,655 acres of vegetation management). The added protection these reclassifications provide will benefit native vegetation communities that filter and sequester air pollutants.

3.5 TOPOGRAPHY, GEOLOGY, AND SOILS

Please refer to Section 2.4 of the 2026 MP for more information on existing conditions for topography, geology, and soils at Addicks and Barker Reservoirs.

3.5.1 Alternative 1: No Action Alternative

The No Action Alternative would have minor, adverse, long-term impacts to topography, geology, or soils since the 2009 MP would not be revised. Continued implementation of the 2009 MP would not provide any benefits to topography, geology, and soils such as increased habitat protection, reduced erosion, or shoreline stabilization, since there would be no land reclassifications. No ground disturbing activities would take place that could potentially affect topography, geology, or soils resources, including the prime farmlands identified in Section 2.4.4 of the 2026 MP, therefore the No Action Alternative would have no impacts on this resource.

3.5.2 Alternative 2: Proposed Action

3.5.2.1 Proposed Action – Addicks Reservoir

The Proposed Action takes into consideration the various topographical, geological, and soils aspects of USACE Addicks and Barker Reservoirs project lands. The

decrease of recreational land from 1,595 acres to 1,217 acres (1,217 acres of HDR) will help increase the long-term preservation and stabilization of soils within USACE Addicks Reservoir. Implementation of the Proposed Action will have minor, positive, long-term impacts on soil conservation and topography, and geology at Addicks Reservoir.

3.5.2.2 Proposed Action – Barker Reservoir

The Proposed Action takes into consideration the various topographical, geological, and soils aspects of USACE Addicks and Barker Reservoirs project lands. The increase of recreational land from 1,363 acres to 1,431 acres (1,431 acres of HDR) will decrease the long-term preservation and stabilization of soils within USACE Addicks Reservoir. Implementation of the Proposed Action will have minor, beneficial, long-term impacts on soil conservation and topography, and geology at Addicks and Barker Reservoirs.

3.6 NATURAL RESOURCES

For more information on the existing conditions for natural resources (including fish and wildlife resources and vegetation resources), please refer to Section 2.8 of the 2026 MP.

3.6.1 Alternative 1: No Action Alternative

The No Action Alternative would not update land management policies, as well as not provide any updated land classifications that could affect natural resources at Addicks and Barker Reservoirs. The No Action Alternative would cause minor, long-term adverse impacts to natural resources since they would not be managed by current policies and needs at Addicks and Barker Reservoirs.

3.6.2 Alternative 2: Proposed Action

The Proposed Action would bring land management policies up to date with current needs and natural resource requirements at Addicks and Barker Reservoirs. The implementation of the proposed land classifications will allow project lands to further support the USACE missions for wildlife conservation, as well as implementation of operational procedures that will protect and enhance wildlife and fishery populations and habitat. The 2026 MP resource goals and objectives aim to further enhance, conserve, and protect natural resources at Addicks and Barker Reservoirs, including Species of Greatest Conservation Need (SGCN) and State and Federally Listed species.

3.6.2.1 Proposed Action – Addicks Reservoir

The decrease in ESA lands (-3,652 acres), the decrease of recreation lands (-378 acres) and increase of MRML-VM (+5,610 acres) will help protect and conserve natural resources from various types of adverse impacts such as disturbance and habitat fragmentation. While the decrease of ESA is not beneficial, the mass increase in MRML-VM and minor decrease of recreation is beneficial. Therefore, the Proposed Action would provide moderate short and long-term benefits to natural resources.

3.6.2.2 Proposed Action – Barker Reservoir

The decrease in ESA lands (-2,612 acres), the increase of recreation lands (+68 acres) and increase of MRML-VM (+5,655 acres) will help protect and conserve natural resources from various types of adverse impacts such as disturbance and habitat fragmentation. While the decrease of ESA and increase of recreation is not beneficial, the mass increase in MRML-VM is beneficial. Therefore, the Proposed Action would provide moderate short and long-term benefits to natural resources.

3.7 THREATENED AND ENDANGERED SPECIES

The Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq., as amended) defines an endangered species as a species “in danger of extinction throughout all or a significant portion of its range.” A threatened species is a species “likely to become endangered within the foreseeable future throughout all or a significant portion of its range.” Proposed species are those that have been proposed in the Federal Register (FR) to be listed under Section 4 of the Endangered Species Act. Species may be considered endangered or threatened “because of any of the following factors: (1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purpose; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or human-induced factors affecting continued existence.” USFWS has identified species that are candidates for listing as a result of identified threats to their continued existence. The candidate designation includes those species for which the USFWS has sufficient information to support proposals to list as endangered or threatened under the Endangered Species Act.

Section 7(a)(2) of the Endangered Species Act requires Federal agencies to ensure that any action authorized, funded, or carried out by such agency is not likely to 1) jeopardize the continued existence of any endangered or threatened species, or 2) result in the destruction or adverse modification of critical habitat. The term "jeopardize the continued existence of" means to appreciably reduce the likelihood of both the survival and recovery of listed species in the wild by reducing the species' reproduction, numbers, or distribution. Jeopardy opinions must present reasonable evidence that the project will jeopardize the continued existence of the listed species or result in destruction or adverse modification of critical habitat.

Using the Information for Planning and Consultation tool (IPaC), an official species list was obtained on July 28, 2025. A copy of this list is available in Appendix C. All Federally listed Threatened and Endangered species as well as Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Act (BGEA) species are reported on the official USFWS species list.

Table 5 - Federal and State Listed Conservation Species Potentially Occurring at the Addicks and Barker Reservoirs Project Area (TPWD, 2020; USFWS, 2025)

Species	Federal Status	State Status
Alligator Snapping Turtle (*Macrochelys temminckii*)	Proposed Threatened	Petitioned
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	None
Monarch Butterfly (*Danaus plexippus*)	Proposed Threatened	None
Eastern Black Rail (*Laterallus jamaicenis*)	Threatened	Proposed Threatened
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	Threatened
Piping Plover (*Charadrius melodus*)	Threatened	Threatened
Whooping Crane (*Grus americana*)	Endangered	Endangered
Texas Fawnsfoot (*Truncilla macrodon*)	Threatened	Candidate
Texas Prairie Dawn-flower (*Hymenoxys texana*)	Endangered	Endangered

3.7.1 Alternative 1: No Action Alternative

The No Action Alternative would have no effect on any Threatened and Endangered species that may occur at Addicks and Barker Reservoirs. Migratory bird species protected under the MBTA as well as the Bald and Golden Eagle Act protected species would not be adversely affected. Threatened and Endangered species and CNHI species would continue to be managed with existing USACE guidelines established under the 2009 MP, Section 7 of the ESA, the MBTA, the BGEA, and Texas State Law.

3.7.2 Alternative 2: Proposed Action

The implementation of the 2026 MP will allow for better cooperative management plans with the USFWS that will help to preserve, enhance, and protect vegetation and wildlife habitat resources that are essential to various endangered and threatened species that may be found within USACE Addicks and Barker Reservoirs project lands.

The resource objectives will require that threatened and endangered species are managed by various ecosystem management principles**,** which will further help those species. Any future activities that could potentially result in impacts to Federally listed species will be coordinated with USFWS through Section 7 of the Endangered Species

Act (ESA). Within the context of the ESA, the USACE has determined that the implementation of the Proposed Action will have No Effect on any federally listed or proposed threatened, endangered, or candidate species that may occur within the Addicks and Barker Reservoirs federal fee boundary.

3.7.2.1 Proposed Action – Addicks Reservoir

To strengthen management opportunities and beneficially impact habitat diversity, the reclassifications in the 2026 MP include a MRML-Vegetation and increase of MRML-VM (+5,610 acres) and the decrease of recreation lands (-378 acres). The decrease in ESA lands (-3,652 acres), will impact any federally listed species due to loss of habitat, while the net increase of vegetation management and decrease of recreation lands will increase potential habitat, providing long-term, minor benefits to these resources over the life of the 2026 MP.

3.7.2.2 Proposed Action – Barker Reservoir

To strengthen management opportunities and beneficially impact habitat diversity, the reclassifications in the 2026 MP include a recreational land and MRML-Vegetation and increase of MRML-VM (+5,655 acres). The decrease in ESA lands (-2,612 acres), and the increase of recreation lands (+68 acres) will impact any federally listed species due to loss of habitat, while the net increase of vegetation management and decrease of recreation lands will increase potential habitat, providing long-term, minor benefits to these resources over the life of the 2026 MP.

3.8 INVASIVE SPECIES

Please refer to Section 2.11 for information on the existing condition of invasive species at Addicks and Barker Reservoirs in the 2026 MP.

3.8.1 Alternative 1: No Action Alternative

The No Action Alternative would have no effect on invasive species. The 2009 MP would not be updated. No changes to policies or guidelines at Addicks and Barker Reservoirs concerning invasive species would occur as a result of the No Action Alternative.

3.8.2 Alternative 2: Proposed Action

The reclassifications of land classes, improvement of resource management objectives, and the overall improvement of the 2026 MP will hinder management of invasive species within USACE Addicks and Barker Reservoirs federal project lands.

3.8.2.1 Proposed Action – Addicks Reservoir

The increase of MRML-VM (+5,610 acres) and the decrease of recreation lands (-378 acres) would decrease effects to natural resources from various types of adverse impacts such as habitat fragmentation which increases the opportunity for the spread of invasive species. These areas will also receive updated invasive species management efforts. The resource goals and objectives will require monitoring and reporting of

invasive species, as well as action items to prevent and/or reduce the spread of these species. Therefore, under the Proposed Action, there will be long-term, minor, negative impacts on invasive species management as a result of implementing the 2026 MP.

3.8.2.2 Proposed Action – Barker Reservoir

While the increase of recreation lands (+68 acres) would be negative, the increase of MRML-VM (+5,610 acres) would decrease effects to natural resources from various types of adverse impacts such as habitat fragmentation which increases the opportunity for the spread of invasive species. These areas will also receive updated invasive species management efforts. The resource goals and objectives will require monitoring and reporting of invasive species, as well as action items to prevent and/or reduce the spread of these species. Therefore, under the Proposed Action, there will be long-term, minor, benefits on invasive species management as a result of implementing the 2026 MP.

3.9 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

The earliest evidence of anthropogenic occupation of the Addicks and Barker Reservoirs dates back to 12,000 BP, varying from indigenous populations to colonial Europeans and early Americans. Many artifacts have been found in the project area from both prehistoric and historic archaeological sites. Section 6.3 of the 2026 Master Plan provides prehistoric and historic background discussions for the Addicks and Barker Reservoirs as well as a summary regarding previous cultural resources investigations.

3.9.1 Alternative 1: No Action Alternative

The Addicks and Baker Reservoirs would continue to be managed according to the 2009 Master Plan. There is no Historic Properties Management Plan for Addicks and Barker Reservoirs. No direct or indirect impacts on cultural, historical, or archaeological resources is anticipated as a result of implementing the No Action Alternative.

3.9.2 Alternative 2: Proposed Action

Impacts to historic properties were considered during the refinement processes of land reclassifications. However, due to the sensitive nature of historic properties, the locations of these resources were not included in the land reclassification. Since the MP is primarily administrative, it does not supersede cultural resources compliance under Sections 106 and 110 of the NHPA, NAGPRA, ARPA, or the 1997 Historic Properties Management Plan. Furthermore, due to the nature of the MP, there are no ground disturbing activities or other proposed project activities associated with the revision of the MP. No direct or indirect impacts are expected to occur to historic properties at the Addicks and Barker Reservoirs because of the Proposed Action. Therefore, the USACE has determined that the Proposed Action has no potential to affect historic properties. The USACE invited the Alabama-Coushatta Tribe of Texas, Comanche Nation of Oklahoma, Coushatta Tribe of Louisiana, Kickapoo Traditional Tribe of Texas, Kiowa Indian Tribe of Oklahoma, Mescalero Apache Tribe of the Mescalero Reservation,

Tonkawa Tribe of Oklahoma, and the Texas State Historic Preservation Officer (SHPO) to participate in the scoping and review of this EA.

3.10 SOCIOECONOMICS AND DEMOGRAPHICS

For more information on the existing conditions of socioeconomics and demographics, please refer to Section 2.14 of the 2026 MP.

3.10.1 Alternative 1: No Action Alternative

The No Action Alternative would not have any impacts on socioeconomics or demographics. The 2026 MP would not be implemented, and Addicks and Barker Reservoir would continue to be managed based on the 2009 MP and subsequent updates.

3.10.2 Alternative 2: Proposed Action

The Proposed Action would implement the 2026 MP and would not have any impacts on socioeconomics or demographics since no construction or changes that could affect local socioeconomic/demographic factors would occur; the changes proposed in the 2026 MP would not affect the local economy or local populations in any perceivable way.

3.12 RECREATION

For information on the existing conditions of recreation and the zone of influence for Addicks and Barker Reservoirs, please refer to Section 2.15 of the 2026 MP.

3.12.1 Alternative 1: No Action Alternative

The No Action Alternative would keep the 2009 MP in place, which would cause moderate, long-term adverse impacts to recreation. These impacts would result from lack of updates in land management as well as land classifications related to recreation that would not reflect current recreation needs at Addicks and Barker Reservoirs.

3.12.2 Alternative 2: Proposed Action

The Proposed Action would implement the 2026 MP, which provides updates to both recreation policies and goals, as well as large-scale changes to recreation land classifications.

3.12.2.1 Proposed Action – Addicks Reservoir

The 2026 MP would cause recreational land decrease (-378 acres) of HDR. The overall updates and land classification changes presented by the 2026 MP would provide minor, long-term impacts to recreation at Addicks Reservoir.

3.12.2.2 Proposed Action – Barker Reservoir

The 2026 MP would cause recreational land increased (+68 acres) of HDR. The overall updates and land classification changes presented by the 2026 MP would provide minor, long-term benefits to recreation at Addicks Reservoir.

3.13 AESTHETIC RESOURCES

For information on the existing conditions of aesthetic resources at Addicks and Barker Reservoirs, please refer to Section 2.12 of the 2026 MP.

3.13.1 Alternative 1: No Action Alternative

There would be no impacts on aesthetic resources as a result of the No Action Alternative, as there would be no changes to the existing 2009 MP.

3.13.2 Alternative 2: Proposed Action

3.13.2.1 Proposed Action – Addicks Reservoir

The Proposed Action may have negligible, long-term, benefits to aesthetic resources due to a net increase in MRML-VM (+5,610 acres), and a decrease in HDR lands (-378 acres). Benefits to aesthetic resources may occur due to overall less disturbance of aesthetic nature areas such as the Vegetation Management.

3.13.2.2 Proposed Action – Barker Reservoir

The Proposed Action may have negligible, long-term, benefits to aesthetic resources due to a net increase in MRML-VM (+5,655 acres) and decrease in HDR lands (-68 acres). Benefits to aesthetic resources may occur due to overall less disturbance of aesthetic nature areas such as the Vegetation Management lands.

3.14 HAZARDOUS, TOXIC, RADIOACTIVE, OR SOLID WASTES (HTRW)

For information on the existing conditions of HTRW at Addicks and Barker Reservoirs, please refer to Section 2.6 of the 2026 MP.

3.14.1 Alternative 1: No Action Alternative

There would be no impacts to HTRW resources as a result of the No Action Alternative, as there would be no changes to the existing 2009 MP, and no known HTRW resources or facilities in the immediate vicinity of Addicks and Barker Reservoirs would be affected by keeping the 2009 MP implemented.

3.14.2 Alternative 2: Proposed Action

The Proposed Action seeks to implement the 2026 MP which is a land management document that does not involve construction or ground-disturbing activities. There would be no impacts to any HTRW facilities or resources identified in the vicinity of Addicks and Barker Reservoirs.

3.15 HEALTH AND SAFETY

For information on the existing conditions of health and safety at Addicks and Barker Reservoirs, please refer to Section 2.7 of the 2026 MP.

3.15.1 Alternative 1: No Action Alternative

There would be no impacts to health and safety as a result of implementing the No Action Alternative, as there would be no changes made to the 2009 MP. Health and safety would continue to be managed and follow guidelines from the 2009 MP.

3.15.2 Alternative 2: Proposed Action

The Proposed Action would adopt and implement the 2026 MP which would change land management policies and land classifications at Addicks and Barker Reservoirs. The Proposed Action does not involve any construction or ground-disturbing activities. No impacts to health and safety are anticipated as a result of implementing the Proposed Action.

3.16 SUMMARY OF CONSEQUENCES AND BENEFITS

Table 6 **- Summary of Consequences and Benefits – Addicks Reservoir** and *Table 7* **- Summary of Consequences and Benefits – Barker Reservoir** provide a tabular summary of the consequences and benefits for the No Action and Proposed Action alternatives for each of the assessed resource categories in Section 3.

Table 6 - Summary of Consequences and Benefits – Addicks Reservoir

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Land Use	Updates to land management policies and land reclassifications: • Net increase in PO lands from 1,924 to 2,048 acres. • The net increase in High Density Recreation lands from 0 to 1,217 acres. • The net increase in MRML-FOIR from 0 acres to 443 acres.	Moderate, long-term, adverse impacts due to outdated land management policies and land classifications.	Moderate, long-term beneficial impacts due to updated land management policies, updated land classifications, and updated resource goals and objectives.	Benefits caused by updated land management policies, land classifications, and updated resource goals and objectives that better align land management at Addicks Reservoir with current needs and trends, allowing for more effective and appropriate Land Use.
Water Resources Including Groundwater, Wetlands, and Water Quality	No change.	No effect.	Negligible, long-term impacts due to increase anthropogenic disturbance which will decrease water quality.	Impacts caused by the disturbance due to increased recreation lands may increase erosion by destabilizing soils. The increase in MRML-VM lands would decrease sediment runoff into the aquatic environment.
Hydrometeorological Conditions, and Greenhouse Gases	No change.	No effect.	Negligible, long-term beneficial impacts due to updated management practices and resource goals and objectives compliant with GHG's.	Benefits caused by updated management practices and resource goals and objectives that are conscious of GHG emissions, reflecting modern trends in resource management.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Air Quality	No change	No effect	Negligible, long-term beneficial impacts due to enhancement and preservation of native vegetation that may filter and sequester air pollutants.	Benefits occur from the preservation and enhancement of wildlife habitat (vegetation) increased MRML-VM lands. Vegetation can remove and sequester air pollutants over time, providing localized benefits to air quality.
Topography, Geology and Soils	No change	No effect	Minor, long-term beneficial impacts due to decreased erosion and soil disturbance.	Benefits occur from decreased erosion and soil disturbance due to decreased recreation lands and increased MRML-VM lands. Soil erosion is also decreased by the conservation and enhancement of vegetation that further stabilizes soils.
Natural Resources	Minor change to vegetation modification permits to allow mowing through the shoreline vegetation buffer in LDAs. • The net increase in Vegetation Management from 0 acres to 9,174 acres • The net decrease in Environmentally Sensitive Area from 4,317 acres to 665 acres.	Minor, long-term adverse impacts due to outdated land management policies and land classifications that do not reflect current needs for Natural Resources.	Moderate, short and long-term benefits due to updated land management policies and land classifications that align with current needs for Natural Resources.	Benefits occur due to updated land management policies and land classifications that would enhance and preserve wildlife habitat. Decreased recreation lands and increased MRML-VM lands would provide more managed wildlife habitat and less habitat disturbance due to anthropogenic activities.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Threatened and Endangered Species	No change	No effect	Minor, long-term beneficial impacts on T&E species habitat, no effects on T&E species in the context of Section 7 of the ESA.	Benefits would occur due to updated land management policies and land classifications that would enhance and conserve wildlife habitat, including potential T&E species' habitat. Decreased recreation lands and increased MRML-VM lands provides less potential disturbance to any of the listed species and their habitat. Additionally, there would be no effect to any federally listed species.
Invasive Species	No change	No effect	Minor, long-term beneficial impacts due to update land management policies and land classifications allowing for updated and more effective invasive species management.	Benefits occur from updated land management and land classifications allowing invasive species to be more effectively managed based on current needs at Addicks Reservoir.
Cultural Resources	Updated long-term goals and objectives for Cultural Resources.	No effect	Minor, long-term benefits due to updated goals and objectives.	Benefits would occur due to updated long-term goals and objectives that would provide updates to Cultural Resource management at Addicks Reservoir.
Socioeconomics and Demographics	No change	No effect	No effect	No added benefit
Recreation	No change	Moderate, long-term adverse impacts since there would be no updates to reflect current recreation trends and needs at Addicks Reservoir.	Moderate, long-term adverse impacts due to slight decrease in recreation lands at Addicks Reservoir.	Impacts occur from updates to land classifications (decreased HDR lands) These changes allow recreation to be more effectively managed.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Aesthetic Resources	No change	No effect	Negligible, long-term benefits due to increased MRML-VM lands and decreased recreation lands that may enhance aesthetic areas.	Benefits occur from increased MRML-VM and decreased recreation lands that may provide more opportunities for less disturbed natural areas to become aesthetic.
Hazardous, Toxic, and Radioactive Waste	No change	No effect	No effect	No added benefit.
Health and Safety	No change	No effect	No effect	No added benefit

Table 7 - Summary of Consequences and Benefits – Barker Reservoir

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Land Use	Updates to land management policies and land reclassifications: • Net increase in PO lands from 2,188 to 2,332 acres. • Net increase in HDR from 0 to 1,431 acres. •	Moderate, long-term, adverse impacts due to outdated land management policies and land classifications.	Moderate, long-term beneficial impacts due to updated land management policies, updated land classifications, and updated resource goals and objectives.	Benefits caused by updated land management policies, land classifications, and updated resource goals and objectives that better align land management at Barker Reservoir with current needs and trends, allowing for more effective and appropriate Land Use.
Water Resources Including Groundwater, Wetlands, and Water Quality	No change.	No effect.	Negligible, long-term impacts due to increase anthropogenic disturbance which will decrease water quality.	Impacts caused by the disturbance due to increased recreation lands may increase erosion by destabilizing soils. The increase in MRML-VM lands would decrease sediment runoff into the aquatic environment.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Hydrometeorological Conditions, and Greenhouse Gases	No change.	No effect.	Negligible, long-term beneficial impacts due to updated management practices and resource goals and objectives compliant with GHG's.	Benefits caused by updated management practices and resource goals and objectives that are conscious of GHG emissions, reflecting modern trends in resource management.
Air Quality	No change	No effect	Negligible, long-term beneficial impacts due to enhancement and preservation of native vegetation that may filter and sequester air pollutants.	Benefits occur from the preservation and enhancement of wildlife habitat (vegetation) increased MRML-VM lands. Vegetation can remove and sequester air pollutants over time, providing localized benefits to air quality.
Topography, Geology and Soils	No change	No effect	Minor, long-term beneficial impacts due to decreased erosion and soil disturbance.	Benefits occur from decreased erosion and soil disturbance due to increased MRML-VM lands. Soil erosion is also decreased by the conservation and enhancement of vegetation that further stabilizes soils.
Natural Resources	Minor change to vegetation modification permits to allow mowing through the shoreline vegetation buffer in LDAs. • Net increase in MRML-VM from 0 to 8,390 acres. • Net decrease in ESA from 2,910 to 299 acres	Minor, long-term adverse impacts due to outdated land management policies and land classifications that do not reflect current needs for Natural Resources.	Moderate, short and long-term benefits due to updated land management policies and land classifications that align with current needs for Natural Resources.	Benefits occur due to updated land management policies and land classifications that would enhance and preserve wildlife habitat. Increased MRML-VM lands would provide more managed wildlife habitat and less habitat disturbance due to anthropogenic activities.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Threatened and Endangered Species	No change	No effect	Minor, long-term beneficial impacts on T&E species habitat, no effects on T&E species in the context of Section 7 of the ESA.	Benefits would occur due to updated land management policies and land classifications that would enhance and conserve wildlife habitat, including potential T&E species' habitat. Increased MRML-VM lands provides less potential disturbance to any of the listed species and their habitat. Additionally, there would be no effect to any federally listed species.
Invasive Species	No change	No effect	Minor, long-term beneficial impacts due to update land management policies and land classifications allowing for updated and more effective invasive species management.	Benefits occur from updated land management and land classifications allowing invasive species to be more effectively managed based on current needs at Barker Reservoir.
Cultural Resources	Updated long-term goals and objectives for Cultural Resources.	No effect	Minor, long-term benefits due to updated goals and objectives.	Benefits would occur due to updated long-term goals and objectives that would provide updates to Cultural Resource management at Barker Reservoir.
Socioeconomics and Demographics	No change	No effect	No effect	No added benefit
Recreation	No change	Moderate, long-term adverse impacts since there would be no updates to reflect current recreation trends and needs at Barker Reservoir.	Moderate, long-term beneficial impacts due to slight increase in recreation lands at the Barker Reservoir.	Impacts occur from updates to land classifications (increased HDR lands). These changes allow recreation to be more effectively managed.

Resource	Change Resulting from 2026 MP (Proposed Action)	Environmental Consequences: No Action Alternative	Environmental Consequences: Proposed Action	Benefits Summary
Aesthetic Resources	No change	No effect	Negligible, long-term benefits due to increased MRML-VM and recreation lands that may enhance aesthetic areas.	Benefits occur from increased MRML-VM that may provide more opportunities for less disturbed natural areas to become aesthetic.
Hazardous, Toxic, and Radioactive Waste	No change	No effect	No effect	No added benefit.
Health and Safety	No change	No effect	No effect	No added benefit

SECTION 4: CUMULATIVE IMPACTS

NEPA regulations updated May 20, 2023, require that cumulative impacts of a Proposed Action be assessed and disclosed in an EA. Council on Environmental Quality (CEQ) regulations define a cumulative impact as “the impact on the environment which results from the incremental impact of the Action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR 1508.7). Impacts can be positive or negative.

By Memorandum dated June 24, 2005 from the Chairman of the CEQ to the Heads of Federal Agencies entitled “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis”, CEQ made clear its interpretation that “…generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions…” and that the “…CEQ regulations do not require agencies to catalogue or exhaustively list and analyze all individual past actions.” CEQ guidance also recommends narrowing the focus of cumulative impacts analysis to important issues of national, regional, or local significance.

The initial step of the cumulative impact analysis uses information from the evaluation of direct and indirect impacts in the selection of environmental resources that should be evaluated for cumulative impacts. A Proposed Action would not contribute to a cumulative impact if it would not have a direct or indirect effect on the resource.

Based on a review of the likely environmental impacts analyzed in Section 3 (Affected Environment and Consequences) the USACE determined that the analysis of cumulative impacts will not include the following resources: socioeconomics and demographics, health and safety, or HTRW. With respect to these resource topics in Section 3, both the No Action and Proposed Action alternatives will either:

1. Not result in any direct or indirect impacts and therefore will not contribute to a cumulative impact; or,

2. That the nature of the resource is such that impacts do not have the potential to cumulate. For example, impacts related to geology are site specific and do not cumulate; or,

3. That the future with or future without project condition analysis is a cumulative analysis and no further evaluation is required.

For each resource topic carried forward for cumulative impact analysis, the timeframe for analysis is the time since the 2009 MP. The zone of interest for all resources are the Harris and Fort Bend counties of Addicks and Barker Reservoirs defined in Section 2.1 of the 2026 MP.

4.1 PAST IMPACTS WITHIN THE ZONE OF INTEREST

The Addicks and Barker Reservoirs were authorized as part of the Buffalo Bayou and Tributaries Project (BBTP) by the Rivers and Harbors Act, approved June 30, 1938. The BBTP was subsequently modified by the Flood Control Acts of August 11, 1939, and September 3, 1954. The BBTP provides for improvements to Buffalo Bayou and its principal tributaries, White Oak Bayou and Brays Bayou. The purpose of the project is to protect urban development in the downstream floodplain of Buffalo Bayou through the City of Houston. The sole authorized purpose of Addicks and Barker Reservoirs is to reduce potential flood damages within the downstream floodplain of Buffalo Bayou. Accordingly, all project lands are allocated to Operations, meaning the safe and effective operations of the reservoirs take precedence over all other uses.

4.2 CURRENT AND REASONABLY FORESEEABLE PROJECTS WITHIN AND NEAR THE ZONE OF INTEREST

There are no foreseeable proposed future projects with USACE. However, at the time of this publication, there are many foreseeable road projects within the zone of interest by the Texas Departments of Transportation.

National USACE policy set forth in ER 1130-2-550, states that USACE lands will, in most cases, only be made available for roads that are regional arterials or freeways (as defined in ER 1130-2-550). All other types of proposed roads, including driveways and alleys, are generally not permitted on USACE lands. Any proposed expansion or widening of existing roadways on USACE lands will be considered on a case-by-case basis.

4.3 ANALYSIS OF CUMULATIVE IMPACTS

Impacts on each resource were analyzed according to how other actions and projects within the zone of interest might be affected by the No Action Alternative and Proposed Action. Impacts can vary in degree or magnitude from a slightly noticeable change to a total change in the environment. For the purpose of this analysis the intensity of impacts will be classified as negligible, minor, moderate, or major. These intensity thresholds were previously defined in Section 3.0. Moderate growth and development are expected to continue in the vicinity of Addicks and Barker Reservoirs and cumulative adverse impacts on resources will not be expected when added to the impacts of activities associated with the Proposed Action or No Action Alternative. A summary of the anticipated cumulative impacts on each resource is presented below.

4.3.1 Land Use

A major impact would occur if any action were inconsistent with adopted land use plans or if an action would substantially alter those resources required for, supporting, or benefiting the current use. Land use around Addicks and Barker Reservoirs and within their respected watersheds is primarily urban areas, parks, a small airport, industrial areas, forests, and open spaces. Historically there were farms within these two watersheds but have been practically eliminated due to urbanization. There are very few forested areas in the Addicks and Barker Watersheds, with most being within the

Addicks and Barker Reservoirs which are owned by the City of Houston, and the USACE. Forested areas have been steadily declining due to increased residential and commercial developments. Most wooded areas along streams and bottomlands have been cleared over time for development. Under the No Action Alternative, land use would not change. The Proposed Action will result in the reclassification of project lands, the reclassifications were developed to help fulfill regional goals associated with good stewardship of land resources that would allow for continued use of project lands.

Therefore, cumulative impacts on land use within the area surrounding Addicks and Barker Reservoirs, when combined with past and future actions in the region, are anticipated to be negligible.

4.3.2 Water Resources

A major impact would occur if any action were inconsistent with adopted surface water classifications or water use plans, or if an action would substantially alter those resources required for, supporting, or benefiting the current use. Addicks and Barker Reservoirs were developed for flood control and low flow augmentation purposes and is secondarily authorized for recreation and water quality control. The reclassifications and resource objectives required to revise the 2009 MP are compatible with water use plans and surface water classification; further, they were developed to help fulfill regional goals associated with good stewardship of water resources that will allow for continued use of water resources associated with Addicks and Barker Reservoirs. Therefore, cumulative impacts on water resources within the area surrounding Addicks and Barker Reservoirs, when combined with past and proposed actions in the region, are anticipated to be negligible.

4.3.3 Hydrometeorological and GHG’s

Under the Proposed Action, current management plans and monitoring programs for Addicks and Barker Reservoirs will not be changed. In the event that GHG emission issues become significant enough to impact the current operations at Addicks and Barker Reservoirs, the 2026 MP and all associated documents will be reviewed and revised as necessary. Therefore, implementation of the 2026 MP, when combined with other existing and proposed projects in the region, will result in negligible reasonably foreseeable future impacts on climate or GHG’s.

4.3.4 Air Quality

There are many highway projects in the zone of interest for Addicks and Barker Reservoirs and many potential proposed projects that may contribute to the amount of new emissions that could potentially affect air quality within the region. The Proposed Action will only have negligible, beneficial impacts to air quality localized to Addicks and Barker Reservoirs. Vehicle traffic along park and area roadways and routine daily activities in nearby communities contribute to current and future emission sources; however, the impacts associated with the Proposed Action will be negligible in comparison. The use of gas-powered equipment by the USACE to manage vegetation already occurs at Addicks and Barker Reservoirs, and the Proposed Action would not

contribute to a regional increase in emissions that would degrade air quality. Therefore, there would be negligible cumulative impacts to air quality resulting from the Proposed Action when combined with past and future proposed action in the area.

4.3.5 Topography, Geology, and Soils

A major impact could occur if a proposed future Action exacerbates or promotes long-term erosion, if the soils are inappropriate for the proposed construction and would create a risk to life or property, or if there would be a substantial reduction in agricultural production or loss of Prime Farmland soils. The Proposed Action does not include any construction or ground-disturbing activities. The potential repeated removal or mowing of vegetation at Addicks and Barker Reservoirs consistent with current use and as a result of the Proposed Action may contribute to negligible amounts of soil loss in the forecasted 25-year period of analysis. The Proposed Action is also expected to provide minor, long-term benefits to these resources by stabilizing the soil and reducing erosion due to enhanced vegetative habitat. Cumulative impacts on topography, geology, and soils within the area surrounding Addicks and Barker Reservoirs, when combined with past and proposed actions in the region, are anticipated to be negligible.

4.3.6 Natural Resources

The significance threshold for natural resources would include a substantial reduction in ecological processes, communities, or populations that would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. Past, present, and future projects are not anticipated to impact the viability of any plant species or community, rare or sensitive habitats, or wildlife. The Proposed Action is expected to have moderate, short and long-term impacts due to enhanced preservation and conservation of natural resources. The Proposed Action would not threaten viability of any natural resources or contribute to any substantial losses of communities. Therefore, there would be negligible cumulative impacts as a result of the Proposed Action when combined with past and future proposed actions in the area.

4.3.7 Threatened and Endangered Species

The Proposed Action is not expected to affect any Threatened and Endangered species within the context of Section 7 of the ESA. The Proposed Action is expected to provide minor, long-term benefits to wildlife habitat that Threatened and Endangered species may utilize the Addicks and Barker Reservoirs.

Should Federally listed species change in the future (delisting of species or listing of new species), associated requirements will be reflected in revised land management practices in coordination with the USFWS. The USACE will continue cooperative management plans with the USFWS and TPWD to preserve, enhance, and protect critical wildlife resources. Therefore, there would be negligible cumulative impacts as a result of the Proposed Action when combined with past and future proposed actions in the area.

4.3.8 Invasive Species

The land reclassifications required to revise the 2009 MP are compatible with invasive species management practices proposed for Addicks and Barker Reservoirs. Therefore, there will be minor long-term beneficial impacts on reducing and preventing invasive species within the area surrounding Addicks and Barker Reservoir, resulting in negligible cumulative impacts when combined with past and future actions in the area.

4.3.10 Recreation

Addicks and Barker Reservoirs provide regionally significant outdoor recreation benefits including a variety of recreation opportunities. The Proposed Action is expected to provide moderate, long-term benefits to recreation due to updated land classifications that reflect current recreation trends and needs at Addicks and Barker Reservoirs. Cumulative impacts to recreation are expected to be negligible as a result of the Proposed Action combined with past and future actions in the area.

4.3.11 Aesthetic Resources

The Proposed Action is expected to have negligible, long-term benefits to aesthetic resources due to conservation and enhancement of natural environments across Addicks and Barker Reservoirs as a result of increased Vegetation Management lands. Cumulative impacts to aesthetic resources are expected to be negligible as a result of the Proposed Action combined with past and future actions in the area.

SECTION 5: COMPLIANCE WITH ENVIRONMENTAL LAWS

This EA has been prepared to satisfy the requirements of all applicable environmental laws and regulations and has been prepared in accordance with the CEQ's implementing regulations for NEPA, 40 CFR Parts 1500 – 1508, and the USACE ER 200-2-2, Environmental Quality: Procedures for Implementing NEPA. The proposed revision of the 2009 MP is consistent with the USACE's Environmental Operating Principles. The following is a list of applicable environmental laws and regulations that were considered in the planning of this project and the status of compliance with each:

Fish and Wildlife Coordination Act of 1958, as amended – The USACE initiated public involvement and agency scoping activities to solicit input on the 2026 MP EA, and to identify significant issues related to the Proposed Action. Information provided by USFWS and TPWD on fish and wildlife resources has been utilized in the development of the 2026 MP.

Endangered Species Act of 1973, as amended – Current lists of threatened or endangered species were compiled for the 2026 MP. The USACE has determined that no Federally Listed Species, State Listed Species, Species of Greatest Conservation Need, or species reported by the TPWD would be affected by either the No Action Alternative or The Proposed Action.

Executive Order 13186 (Migratory Bird Habitat Protection) – Sections 3a and 3e of EO 13186 direct Federal agencies to evaluate the impacts of their Actions on migratory birds, with emphasis on species of concern, and inform the USFWS of potential negative impacts on migratory birds. The 2026 MP would not result in adverse impacts on migratory birds or their habitat.

Migratory Bird Treaty Act, as amended – The Migratory Bird Treaty Act of 1918 extends Federal protection to migratory bird species. The nonregulated "take" of migratory birds is prohibited under this act in a manner similar to the prohibition of "take" of threatened and endangered species under the Endangered Species Act. The timing of resource management activities at Addicks and Barker Reservoirs would be coordinated to avoid impacts on migratory and nesting birds.

CWA of 1977, as amended – The Proposed Action will comply with all state and Federal CWA regulations and requirements and is regularly monitored by the USACE and the Texas Commission on Environmental Quality. A state water quality certification pursuant to Section 401 of the CWA is not required for the 2026 MP. There will be no change in the existing management of the reservoirs that will impact water quality, but minor, long-term benefits to water quality are expected from the Proposed Action.

National Historic Preservation Act (NHPA) of 1966, as amended – Compliance with the NHPA of 1966, as amended, requires identification of all properties in the project area listed in, or eligible for listing in, the NRHP. All previous surveys, site testing, and excavations will be coordinated with the Texas State Historic Preservation Officer and Native American Tribes with interest in the project area. Known sites are mapped and avoided by maintenance activities with review and approval from District Archeologist. Areas that have not undergone cultural resources surveys or evaluations will need to do

so prior to any earthmoving or other potentially impacting activities, as determined by the District Archeologist during review of the project.

Clean Air Act of 1977, as amended – The USEPA established nationwide air quality standards to protect public health and welfare. Existing operation and management of the reservoirs is compliant with the Clean Air Act and will not change with the 2026 MP. A General Conformity Determination is not required since the emissions of either alternative are negligible at best and are otherwise de minimis.

Farmland Protection Policy Act (FPPA) of 1980 and 1995 – The FPPA's purpose is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. There are Prime Farmland and farmland of state importance on Addicks and Barker Reservoirs project lands, but these will not be impacted.

Executive Order 11990, Protection of Wetlands, as amended – EO 11990 requires Federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in executing Federal projects. The Proposed Action complies with EO 11990.

Executive Order 11988, Floodplain Management, as amended – This EO directs Federal agencies to evaluate the potential impacts of proposed actions in floodplains. Both alternatives comply with EO 11988, as neither will have impacts to the existing floodplain at Addicks and Barker Reservoirs.

CEQ Memorandum dated August 11, 1980, Prime or Unique Farmlands – Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. The Proposed Action will not impact Prime Farmland present on Addicks and Barker Reservoirs project land.

SECTION 6: IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES

NEPA requires that Federal agencies identify “any irreversible and irretrievable commitments of resources which will be involved in the Proposed Action should it be implemented” (42 U.S.C. § 4332). An irreversible commitment of resources occurs when the primary or secondary impacts of an Action result in the loss of future options for a resource. Usually, this is when the Action affects the use of a nonrenewable resource, or it affects a renewable resource that takes a long time to regenerate. An irretrievable commitment of resources is typically associated with the loss of productivity or use of a natural resource (e.g., loss of production or harvest). No irreversible or irretrievable impacts on Federally protected species or their habitat is anticipated from implementing the 2026 MP.

SECTION 7: PUBLIC AND AGENCY COORDINATION

In accordance with 40 CFR §§1501.7, 1503, and 1506.6, the USACE initiated public involvement and agency scoping activities to solicit input on the proposed revision of the 2009 MP, as well as identifying any issues related to the Proposed Action. A public open house was originally scheduled for 10 July 2024 at the Trini Mendenhall Community Center in Houston, Texas. Due to the impacts of hurricane Beryl on the region the meeting was rescheduled for 19 August 2024 at the Trini Mendenhall Community Center. The public comment period opened on 10 July 2024 and remained open until 18 September 2024 to ensure all members of the public had adequate time to comment on the Master Plan Revision. The USACE received twenty-five (25) comments during the initial 30-day comment period, and no additional comments were received during the additional 38-day comment period extension, which can be found in Appendix E of the 2026 MP.

Attachment A to this EA includes the news release, agency coordination letters, and the distribution list for all coordination letters. The EA has been coordinated with agencies having legislative and administrative responsibilities for environmental protection.

SECTION 8: REFERENCES

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SECTION 9: ACRONYMS AND ABBREVIATIONS

%	Percent
°	Degrees
§	Section
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO_2	Carbon Dioxide
CO2e	CO2-equivalent
CRMP	Cultural Resources Management Plan
CWA	Clean Water Act
DOE	Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EP	Engineer Pamphlet
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ER	Engineer Regulation
F	Fahrenheit
Ft	Feet
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection and Policy Act
FY	Fiscal Year
GHG	Greenhouse Gas
GPM	Gallons Per Minute
HPMP	Historic Properties Management Plan
HTRW	Hazardous, Toxic, Radioactive Wastes
IPaC	Information for Planning and Consultation (USFWS)
LDA	Limited Development Area
LDR	Low Density Recreation
MBTA	Migratory Bird Treaty Act
MP	Master Plan
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NHPA	National Historic Preservation Act
NO_2	Nitrogen Dioxide
NOX	Nitrogen Oxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRM	Natural Resources Management tool
NWI	National Wetlands Inventory (USFWS)
NWS	National Weather Service
Pb	Lead

PBO	Programmatic Biological Opinion
PL	Public Law
$PM_{2.5}$	Particulate Matter Less than 2.5 Microns
PM_{10}	Particulate Matter Less than 10 Microns
RPEC	Regional Planning and Environmental Center
SGCN	Species of Greatest Conservation Need
SHPO	Texas State Historic Preservation Office
SO_2	Sulfur Dioxide
TCP	Traditional Cultural Properties
TDS	Total Dissolved Solids
TSI	Trophic State Index
TMDL	Total Maximum Daily Load
TPWD	Texas Parks and Wildlife Department
TX	Texas
U.S.	United States
U.S.C.	U.S. Code
USCB	United States Census Bureau
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Service
VOC	Volatile Organic Compound
WMA	Wildlife Management Area
WSST	Web Soil Survey Tool

SECTION 10: LIST OF PREPARERS

Justin Tirpak: USACE Regional Planning and Environmental Center, 3 Years of Experience

Blake Westmoreland: USACE Regional Planning and Environmental Center, 7 Years of Experience

Attachment A: Public and Agency Coordination

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
P.O. BOX 1229
GALVESTON, TX 77553-1229

June 27, 2024

PUBLIC NOTICE

ADDICKS AND BARKER MASTER PLAN REVISION OPEN HOUSE

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Addicks and Barker Reservoirs Master Plan (MP). The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. It defines "how" the USACE will manage the resources for public use and conservation. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. Key topics to be discussed in the revised MP include revised land use classifications, new natural and recreational resource management objectives, recreation facility needs, and special issues such as invasive species management and threatened and endangered species habitat.

Revision of the MP will not address in detail the technical and operational aspects of the project related to flood risk management. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

An open house will be held from **4:00 pm to 6:00 pm on July 10, 2024, in the Trini Mendenhall Community Center, 1414 Wirt Road, Houston, TX 77055**. The USACE will provide attendees with the revision content, process, and a general schedule. Attendees can view the 2009 Master Plan and current land use classification maps and ask USACE staff questions.

The 30-day public comment period will begin July 10, 2024, and end August 09, 2024. The public can send comments, suggestions, and concerns during this time. **Public participation is critical to successfully revising the 2009 MP.** Information provided at the open house, including the 2009 Master Plan, may be viewed on the USACE website at the following link:

https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/

Comments must be submitted in writing either at the scheduled open house, mailed to the USACE: David Mackintosh – Chief, Houston Project Office, 1011 Highway 6 South, Suite 101, Houston, Texas 77077 or emailed to: **ceswg-addicksandbarkermp@usace.army.mil**. The public may call the Lake Office to ask questions regarding the MP revision at 281-752-2600.

Sincerely,

Robert Morrow, PMP

Robert Morrow
Chief, Environmental Branch
Regional Planning and Environmental Center

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
P.O. BOX 1229
GALVESTON, TX 77553-1229

August 5, 2024

PUBLIC NOTICE

ADDICKS AND BARKER MASTER PLAN REVISION OPEN HOUSE

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Sincerely,

Robert Morrow, PMP

Robert Morrow, PMP
Chief, Environmental Branch
Regional Planning and Environmental Center

US Army Corps of Engineers

News Release

USACE to host in-person public open house review of Addicks and Barker Master Plan revision

Published June 10, 2024 /
Updated: June 10, 2024

GALVESTON, Texas --

The U.S. Army Corps of Engineers (USACE) Galveston District (SWG) will host a public open house from 4 to 6 p.m., July 10, 2024, at the Trini Mendenhall Community Center (1414 Wirt Road, Houston, Texas 77055) to provide information and receive public input on the Addicks and Barker Master Plan and Environmental Assessment.

The meeting will be an open house format for the public to view the current land use maps, ask questions, and provide comments about the project. For those unable to attend the in-person meeting, documents will be available for comment at https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/.

Documents posted for online public review include:

- 2009 Master Plan for Addicks and Barker
- 2009 Land Classification Map
- Comment Form
- Downloadable Presentation

USACE defines the master plan as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. Public participation is critical to the successful revision of the master plan.

The master plan study area includes Addicks and Barker proper and all adjacent recreational and natural resource properties under USACE administration. Addicks and Barker Reservoirs are a multipurpose reservoir constructed and managed for flood control. The current master plan for Addicks and Barker is dated 2009. The revision is needed to address changes in regional land use, population, outdoor recreation trends, and USACE management policy.

Key topics addressed in the master plan include updated land classifications, new natural and recreational resource management objectives, recreation facility needs, and special topics such as utility corridors and public hunting. The master plan **does not** address in detail the technical operational aspects of the reservoir related to the flood risk management of the project.

Comments may be submitted online by filling out the comment form and clicking on the link provided on the comment form or mailing comments to the address below. Only written comments will be accepted. The comment period begins July 10, 2024, and ends August 9, 2024.

Questions pertaining to the master plan or public meeting can be addressed to:

U.S. Army Corps of Engineers

ATTN: David Mackintosh – Houston Project Office Chief

1011 Highway 6 South, Suite 101

Houston, Texas 77077

Questions can also be sent via email to addicksandbarkermp@usace.army.mil.

Contact
Carlos Gomez
(409) 766-3004
carlos.m.gomez@usace.army.mil
2000 Fort Point Road, Galveston, TX 77550

Release no. 24-009

U.S. Army Corps of Engineers Galveston District

Addicks and Barker dams and reservoirs Master Plan Revision open house

ADDICKS AND BARKER MASTER PLAN REVISION

Public Involvement Presentation
August 19, 2024



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PURPOSE OF THE PRESENTATION

- **Inform the public and stakeholders** that a master plan revision has started
- **Define** a master plan
- **Describe** the master plan **revision process**
- **Provide instructions** on how to participate in the revision process
- **Encourage** participation
- **Provide links** to documents

The Corps defines a Master Plan as…

> "The strategic land use management document that guides the comprehensive management and development of all project recreational, natural and cultural resources throughout the life of the water resource development project."

Source: Chapter 3 of EP 1130-2-550 available at www.usace.army.mil/library/publications

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PRESENTATION TOPICS

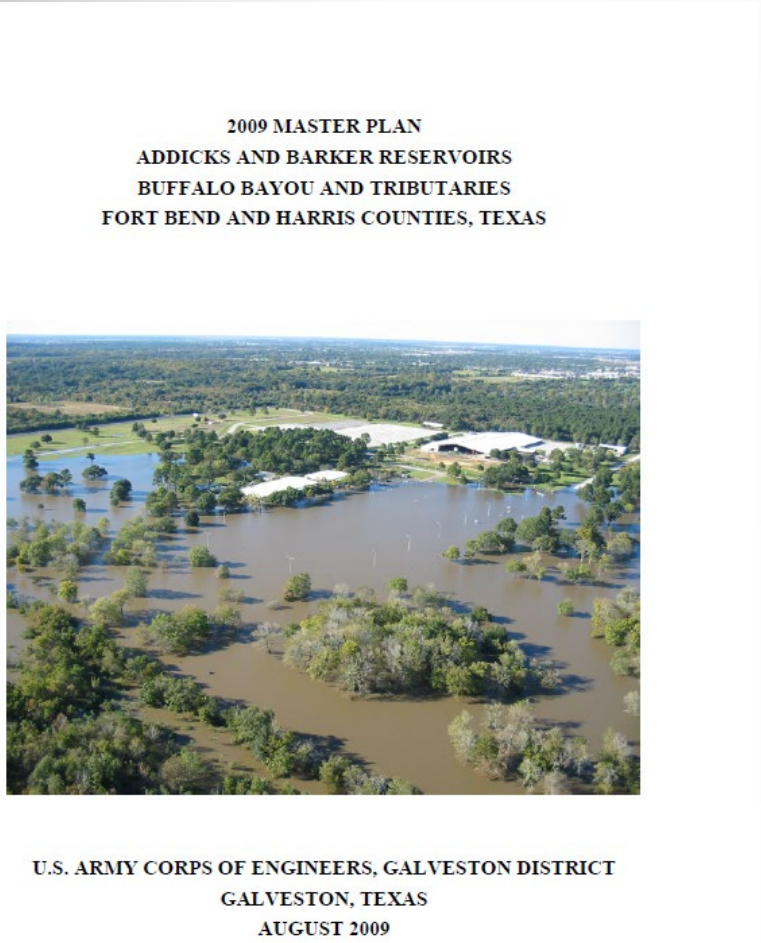
- What is a *Master Plan*?
- Why do a revision?
- What is the revision process?
- What about the current (2009) Master Plan?
- What about NEPA compliance?
- What is NOT part of a Master Plan?
- What is changing in the Master Plan?
- How can I participate?
- Who can I talk to about the plan?
- When will the Master Plan be completed?



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WHAT IS A MASTER PLAN?



- The Master Plan (MP) is a **25-year comprehensive land use management guide** for recreational, natural, and cultural resources
- **Adheres to Federal laws** to preserve, conserve, restore, maintain, manage, and develop project lands, waters, and associated resources, including the National Environmental Policy Act (NEPA) for environmental stewardship and outdoor recreation
- Provides **land classifications** and **resource management objectives** that are broad and adaptive over time
- Requires and encourages **public involvement**

See Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550 for regulations and policy guidance related to the MP

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WHY DO A REVISION?

- The current master plan is **out of date** and is **no longer compliant** with existing regulations
- **Changes in** environmental, cultural, social, and recreational **conditions have occurred** since the current master plan was approved
- **Re-examine land classification** due to these substantial changes
- The master plan **provides long-term goals** and **consistent management objectives** to guide balanced management of resources and public recreation



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WHAT IS THE REVISION PROCESS?



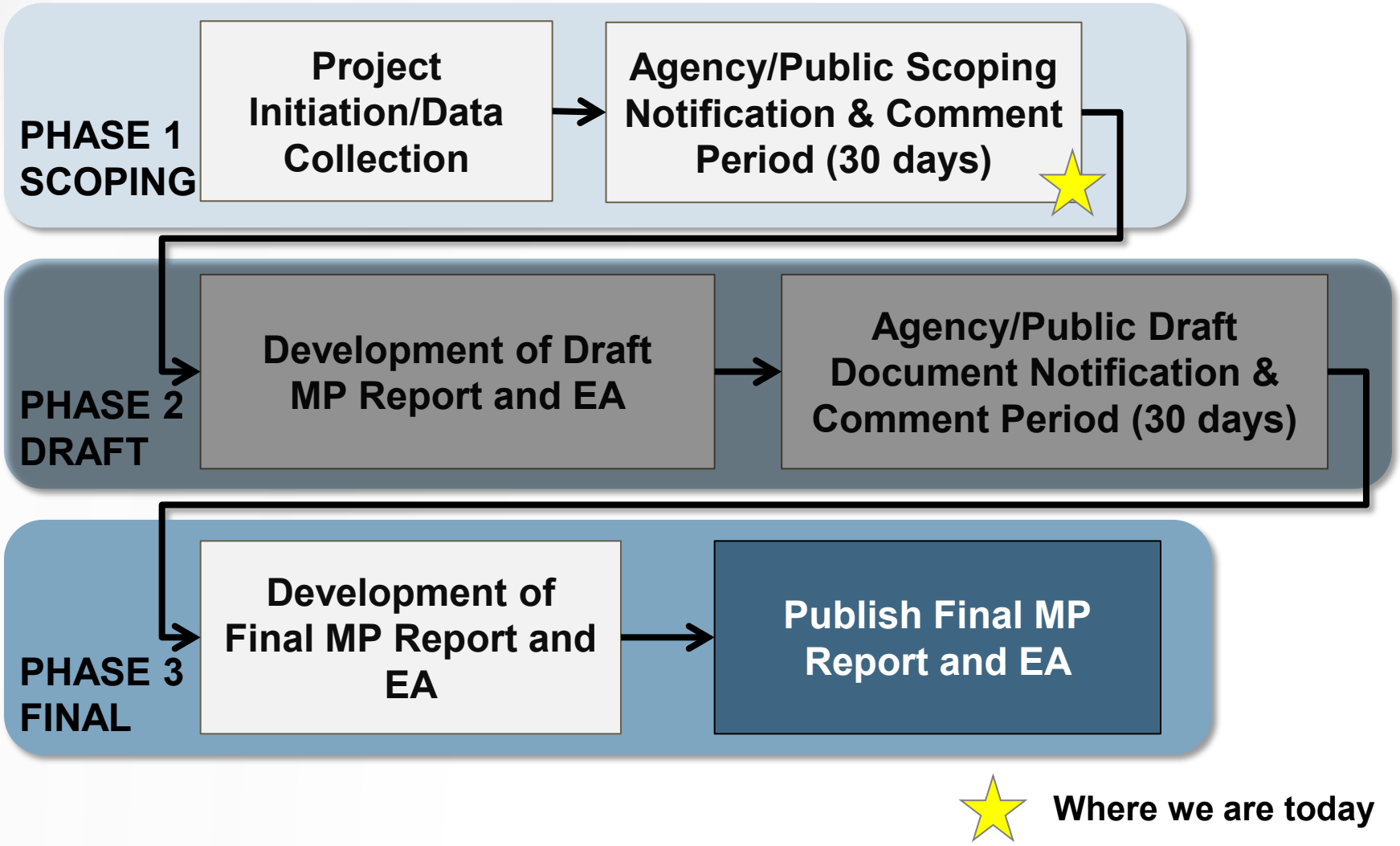
The process is a cover-to-cover **review and revision of the entire plan** and is accomplished by:

- **A team of Corps employees** including Operations, Real Estate, Master Planning, and Environmental Compliance subject matter experts
- **Receive input from** and **collaboration with** partners, neighbors, stakeholders, elected officials, resource agencies, and the public
- A thorough review and update of **land classifications**
- Developing appropriate **NEPA compliance** documents

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WHERE ARE WE IN THE REVISION PROCESS?



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WHAT IS THE REVISION PROCESS?

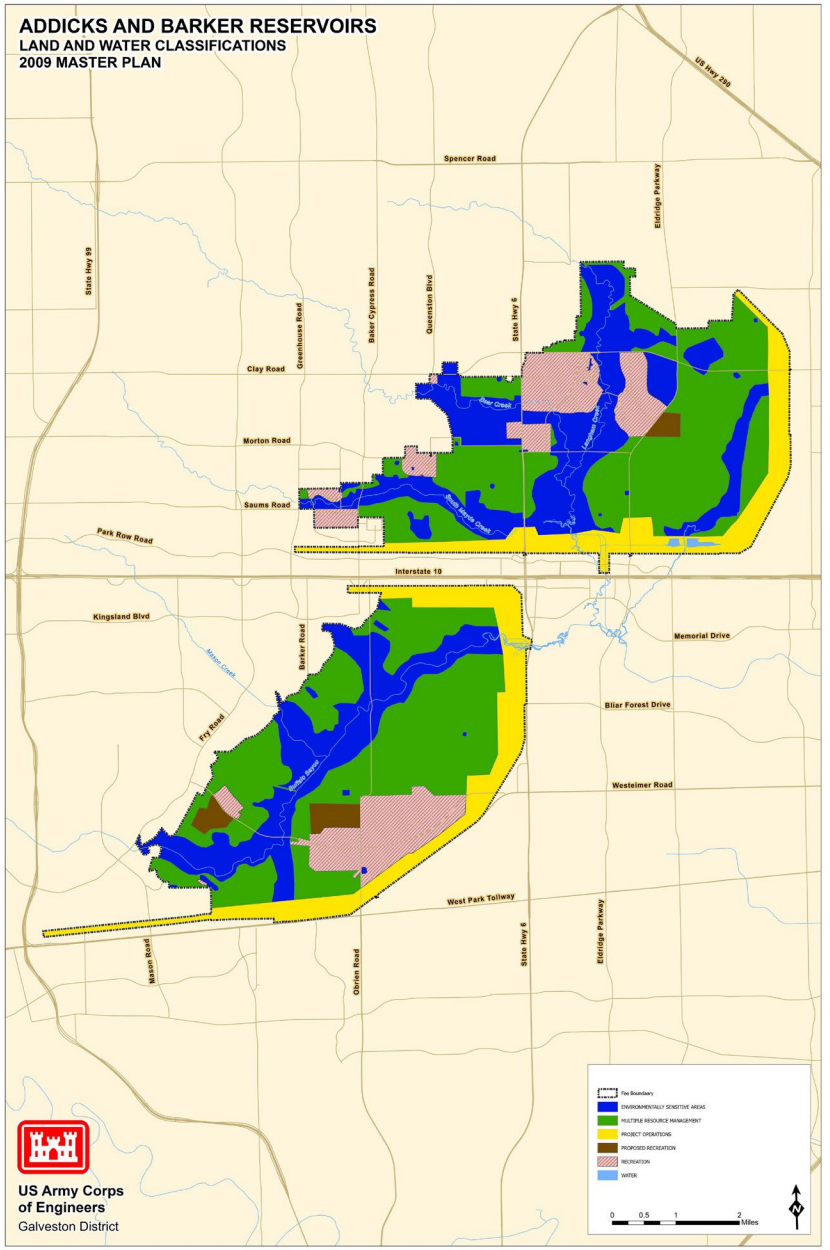
LAND CLASSIFICATIONS

Source: Engineering Pamphlet (EP) 1130-2-550

Land Classification	Definition
Project Operations	Lands required for the dam, spillway, levees, office, maintenance facilities and other areas that are used solely for project operations.
High Density Recreation	Land developed for intensive recreational activities for the visiting public, including day use areas and campground areas for commercial concessions, and quasi-public development.
Multiple Resource Management Lands	**Low Density Recreation**: Lands with minimal development or infrastructure that support passive public recreational use (e.g., trails, primitive camping, wildlife observation, fishing and hunting).
	Wildlife Management: Lands designated for the stewardship of fish and wildlife resources.
	Vegetative Management: Lands designated for the stewardship of forest, prairie, and other native vegetative cover.
	Inactive and/or Future Recreation Areas: Recreation areas planned for the future or that have been temporarily closed.
Environmentally Sensitive Areas	Areas where scientific, ecological, cultural or aesthetic features have been identified. These areas must be considered by management to ensure they are not adversely impacted.
Mitigation	Lands acquired or designated specifically for offsetting losses associated with development of the project. Lands allocated as separable mitigation lands can only be given this classification.

WHAT IS IN THE CURRENT MASTER PLAN?

- The most recent **approved** Master Plan was in **2009** with land classifications.
- The Master Plan and map can be **downloaded from the website** at the link provided.
- The plan includes a site history and description, natural and cultural resources, and **factors affecting management** in 2009.



WHAT ABOUT NEPA COMPLIANCE? THE ENVIRONMENTAL ASSESSMENT

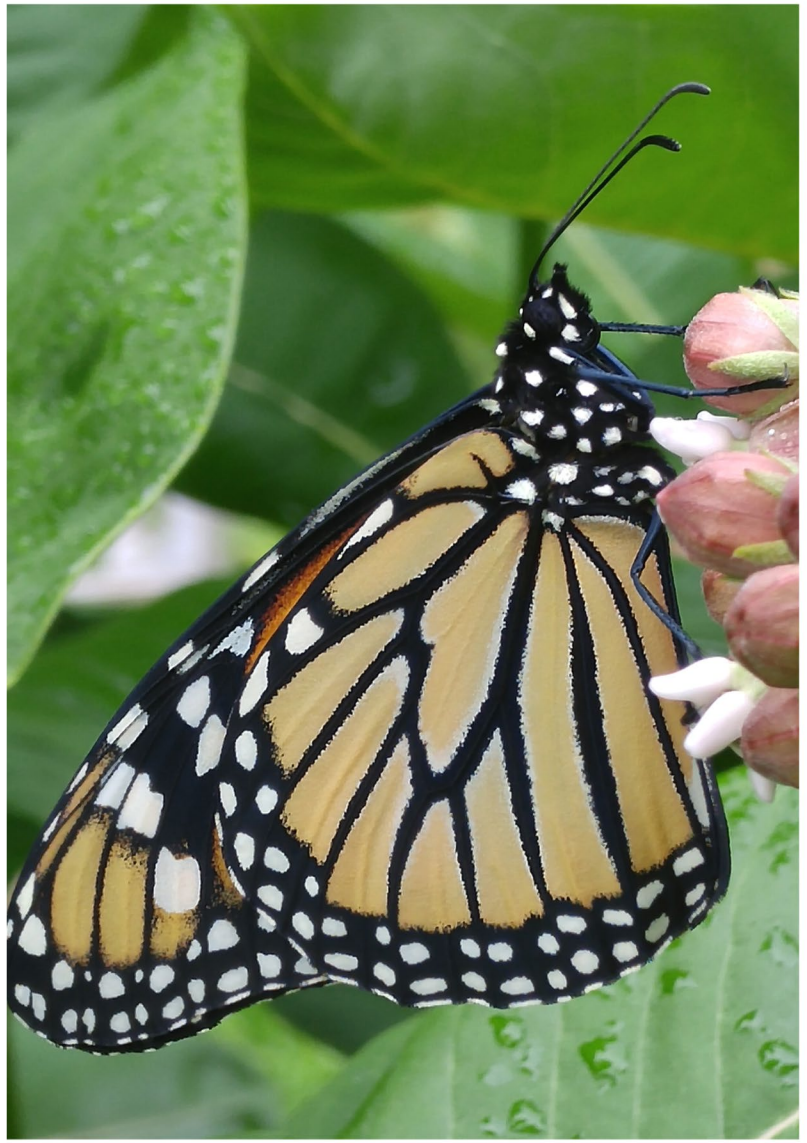
National Environmental Policy Act (NEPA)

Purpose of NEPA is to:

- Ensure federal agencies give proper **consideration to the environmental and cultural resources** prior to undertaking a federal action
- **Involve the Public** and stakeholders in the decision-making process
- **Document the process** by which agencies make informed decisions

NEPA **Process**:

- Opportunity for **public comments and questions** on the potential impacts of proposed federal actions
- Includes comments from other federal, state, and local governments, and Tribal Nations



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WHAT IS NOT PART OF A MASTER PLAN?



- Facility **design details**
- Details of **daily project administration**
- Technical aspects of:
  - Water management for **flood risk management**
  - Regional **water quality**
  - **Dam Operations**
  - **Water Releases**
  - **Dam Safety**
- Management of **Flowage Easement** lands

See Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550 for regulations and policy guidance related to the MP

WHAT IS CHANGING OR PROPOSED IN THE MP?

At this point in the revision process **there are no proposed changes**

The Corps is **requesting written comments for RECOMMENDED changes** to the existing master plan

Possible Changes to the Revised Master Plan Could Include:

- Change Land Classification
- Change Resource Goals and Objectives
- Create Utility Corridors



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HOW CAN I PARTICIPATE?

Submit written comments!

Review all documents available on the USACE website:

https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/

Documents available on the website include:

- Previous Master Plan
- Project map
- Comment form
- Copy of this presentation

Spread the word by telling your colleagues, friends, and neighbors to participate

SCAN QR CODE

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HOW CAN I PARTICIPATE?

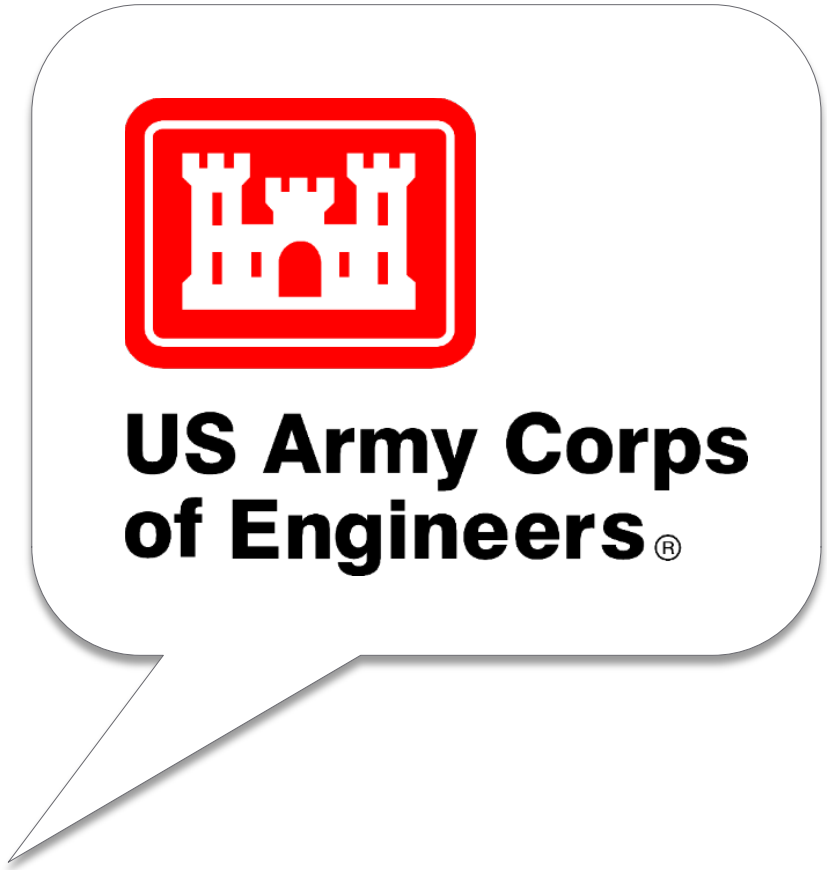
Comments will be accepted **only in writing**, some of the methods for submitting a comment include:

- You may **download the comment form** provided on the website, fill it out electronically, and email it to the Corps
- Or you may **print the comment form** provided on the website, fill it out by hand, and mail it to the Corps at the address on the comment form
- Or you may **write a comment or send an email without using the comment form**, and mail or email it to the Corps at the address provided on the website
- **Comments are due** by close of business on **September 18, 2024**

WHO CAN I TALK TO ABOUT THE PLAN?

Talk to **anyone from the USACE at the meeting** to answer your questions.

- **Call** the Addicks and Barker Office at: 281-752-2600
- **Email** us your questions or comments at: ceswg-addicksandbarkermp@usace.army.mil



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WHEN WILL THE FINAL MP BE COMPLETED?

- The Master Plan typically take **18-24 months** to complete
- Projected milestones/schedule

Milestones	Schedule
Public Notification for Scoping	**August 19, 2024 (today)**
Public Comment Period (30 days)	August 19– September 18, 2024
Draft Master Plan/EA Public Notification	July 2025 (projected)
Public Comment Period (30 days)	August 2025 (projected)
Final Master Plan/EA Approved	April 2026 (projected)

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THANK YOU!

Thank you for viewing this presentation and participating in the master plan revision process for Addicks and Barker.

Website address: https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/

Email: ceswg-addicksandbarkermp@usace.army.mil

Mail:

U.S. Army Corps of Engineers
David Mackintosh
1011 Highway 6 South
Suite 101
Houston, Texas 77077

SCAN QR CODE

US Army Corps of Engineers®

Comment Form Instructions

Addicks and Barker, Texas

Master Plan Revision

30 Day Comment Period

Comments Due By: 18 September 2024

The U.S. Army Corps of Engineers is in the process of revising the Addicks and Barker Master Plan. The master plan revision will guide the land and recreational management of the federally owned property that make up its flood storage area for the next 25 years. Management activities include protecting natural and cultural resources, providing public land and water recreation, protecting the public, and ensuring reservoir and dam operations. Pertinent information and a copy of the current land use map can be found on the USACE website below.

To add your comments, ideas, or concerns about the future land and recreational management for the master plan, please submit comments using any of the following methods:

• Fill out and return a comment form available below or at:

https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/

• Provide comments in an email message or use comment form and send to:

ceswg-addicksandbarkermp@usace.army.mil

• Provide comments in a letter or use comment form and mail to:

U.S. Army Corps of Engineers
David Mackintosh
1011 Highway 6 South
Suite 101
Houston, Texas 77077

Thank you for your participation in helping develop the Master Plan for Addicks and Barker.

US Army Corps of Engineers®

Comment Form

Addicks and Barker, Texas

Master Plan Revision

Comments Due By: 18 September 2024

Questions, comments, or suggestions?

Your input on the proposed Master Plan revision and any related environmental comments under the National Environmental Policy Act (NEPA) is valuable. Your participation is key to our success! 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 workshop or within 30 days, to the address below no later than the date listed on this form. Thank you for your participation!

_____

_____

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_____

_____

Optional Information (used for mailing list to keep you informed and will not be used for any other purpose):

Name:_____ Affiliation:_____

Address:_____ City:_____ State:_____

Zip code:_____ Phone: ____/_____ Email:_____

Mail or email comment sheet to the following Point of Contact:

U.S. Army Corps of Engineers
David Mackintosh
1011 Highway 6 South, Suite 101
Houston, Texas 77077
ceswg-addicksandbarkermp@usace.army.mil

Additional information and comment sheets can be found at the following:
https://www.swg.usace.army.mil/Projects/Addicks-and-Barker-Master-Plan/

From: NoResponse@thc.state.tx.us
To: Campbell, John A CIV USARMY CESWF (USA)
Subject: [Non-DoD Source] Project Review Submission
Date: Tuesday, August 6, 2024 3:00:43 PM

Thank you for submitting project: Addicks and Barker Reservoirs Master Plan Revision

Tracking Number: 202413075

Due Date: 9/5/2024 2:59:13 PM (30 days)

TEXAS HISTORICAL COMMISSION

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
P.O. BOX 1229
GALVESTON, TX 77553-1229

August 5, 2024

PUBLIC NOTICE

ADDICKS AND BARKER MASTER PLAN REVISION OPEN HOUSE

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Sincerely,

Robert Morrow, PMP

Robert Morrow, PMP
Chief, Environmental Branch
Regional Planning and Environmental Center

From: Campbell, John A CIV USARMY CESWF (USA)
To: histpres@actribe.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Wednesday, July 3, 2024 10:04:00 AM
Attachments: Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.
Based on our records, this project falls within the area of interest for the Alabama-Coushatta Tribe of Texas. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

John A. Campbell
Archeologist, Cultural and Environmental Program Support Section
Environmental Branch
USACE Regional Planning & Environmental Center
(409) 766-3878 (office)
(409) 651-2209 (mobile)
john.a.campbell@usace.army.mil

From:	Campbell, John A CIV USARMY CESWF (USA)
To:	martina.minthorn@comanchenation.com; Theodore Villicana
Subject:	Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date:	Wednesday, July 3, 2024 10:06:00 AM
Attachments:	Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

Based on our records, this project falls within the area of interest for the Comanche Nation of Oklahoma. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

John A. Campbell
Archeologist, Cultural and Environmental Program Support Section
Environmental Branch
USACE Regional Planning & Environmental Center
(409) 766-3878 (office)
(409) 651-2209 (mobile)
john.a.campbell@usace.army.mil

From: Campbell, John A CIV USARMY CESWF (USA)
To: kponcho@coushatta.org; bcernek@coushatta.org; dakotajohn@coushatta.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Wednesday, July 3, 2024 10:07:00 AM
Attachments: Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

Based on our records, this project falls within the area of interest for the Coushatta Tribe of Louisiana. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

John A. Campbell
Archeologist, Cultural and Environmental Program Support Section
Environmental Branch
USACE Regional Planning & Environmental Center
(409) 766-3878 (office)
(409) 651-2209 (mobile)
john.a.campbell@usace.army.mil

From:	Campbell, John A CIV USARMY CESWF (USA)
To:	felix.castillo@ktttribe.org
Subject:	Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date:	Wednesday, July 3, 2024 10:09:00 AM
Attachments:	Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

Based on our records, this project falls within the area of interest for the Kickapoo Traditional Tribe of Texas. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

John A. Campbell
Archeologist, Cultural and Environmental Program Support Section
Environmental Branch
USACE Regional Planning & Environmental Center
(409) 766-3878 (office)
(409) 651-2209 (mobile)
john.a.campbell@usace.army.mil

From: Campbell, John A CIV USARMY CESWF (USA)
To: ahill@kiowatribe.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Wednesday, July 3, 2024 10:10:00 AM
Attachments: Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: Holly Houghten
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Wednesday, July 3, 2024 10:14:00 AM
Attachments: Addicks and Barker MP Scoping Notice.pdf

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Based on our records, this project falls within the area of interest for the Mescalero Apache Tribe of the Mescalero Reservation. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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john.a.campbell@usace.army.mil

From: Campbell, John A CIV USARMY CESWF (USA)
To: "lbrown@tonkawatribe.com"
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Wednesday, July 3, 2024 10:16:00 AM
Attachments: Addicks and Barker MP Scoping Notice.pdf

The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

Based on our records, this project falls within the area of interest for the Tonkawa Tribe of Oklahoma. As the lead Federal agency under NEPA, we invite you to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: histpres@actribe.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:31:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

Due to the impacts of hurricane Beryl the initial public open house was canceled. The rescheduled open house will be held from **4:00 pm to 6:00 pm on August 19, 2024, in the Trini Mendenhall Community Center, 1414 Wirt Road, Houston, TX 77055**. The USACE will provide attendees with the existing Master Plan content, process, and a general schedule. Attendees can view the 2009 Master Plan and current land use classification maps and ask USACE staff questions.
Based on our records, this project falls within the area of interest for the Alabama-Coushatta Tribe of Texas. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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john.a.campbell@usace.army.mil

From: Campbell, John A CIV USARMY CESWF (USA)
To: martina.minthorn@comanchenation.com; Theodore Villicana
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:33:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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Based on our records, this project falls within the area of interest for the Comanche Nation of Oklahoma. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: kponcho@coushatta.org; Brittany Cernek; dakotajohn@coushatta.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:35:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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Based on our records, this project falls within the area of interest for the Coushatta Tribe of Louisiana. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: felix.castillo@ktttribe.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:36:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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Based on our records, this project falls within the area of interest for the Kickapoo Traditional Tribe of Texas. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: ahill@kiowatribe.org
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:38:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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Based on our records, this project falls within the area of interest for the Kiowa Indian Tribe of Oklahoma. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: Holly Houghten
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:39:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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Based on our records, this project falls within the area of interest for the Mescalero Apache Tribe of the Mescalero Reservation. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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From: Campbell, John A CIV USARMY CESWF (USA)
To: lbrown@tonkawatribe.com
Subject: Addicks and Barker Reservoirs, Harris County, Texas - USACE Revision of Master Plan
Date: Tuesday, August 6, 2024 2:41:00 PM
Attachments: Addicks and Barker MP Rescheduled Scoping Notice.pdf

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The U.S. Army Corps of Engineers (USACE) is revising the 2009 Master Plan (MP) for the Addicks and Barker Reservoirs. The reservoirs are located in the Buffalo Bayou watershed west of the City of Houston in Harris County, Texas. The USACE defines the MP as the strategic land use management document that guides the comprehensive management and development of all recreational, natural, and cultural resources throughout the life of the water resource development project. The current MP, last approved in 2009, needs revision to address changes in regional land use, population, outdoor recreation trends, and the USACE management policy. The Master Plan study area will include Addicks and Barker reservoirs proper and all adjacent recreational and natural resources properties under Federal Fee ownership.

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Based on our records, this project falls within the area of interest for the Tonkawa Tribe of Oklahoma. As the lead Federal agency under NEPA, we invite you to attend the public meeting and to be a Cooperating Agency with USACE in the continued development of the MP. We look forward to your response to our invitation to become a cooperating agency.

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INITIAL PUBLIC SCOPING (July 10, 2024 – September 18, 2024)

COMMENT	RESPONSE
GENERAL PUBLIC[1]	
The purpose of this email is to comment on a community meeting hosted by USACE on August 18, 2024, to discuss the Addicks & Barker dams. I attended hopefully to hear that the Corps has a plan to prevent flooding. The meeting was a disappointment. The Corps does not have a plan to prevent flooding. A poster was set up on a tripod depicting both Addicks and Barker with environmentally sensitive areas and recreational areas delineated in blue, red, and black. About a dozen Army men and women were present. The Corps patiently explained to 2-3 dozen citizens present that the USACE Master Plan did not include 1) flooding or 2) excavation. Flooding and excavation will be dealt with in a Water Plan (to be presented in the future at an undetermined date). Why is the corps calling this a Master Plan? When and if a Water Plan is presented, I have a suspicion that the plan will be to widen Buffalo Bayou and release all the water into Buffalo Bayou in a full surge release as was done in Hurricane Harvey. The Corps members with whom I was talking did not deny it. I told them that widening Buffalo Bayou would create a storm surge just as the MR GO channel created a storm surge when Hurricane Katrina overtopped the levees and flooded New Orleans. Mississippi River–Gulf Outlet Canal en.wikipedia.org wikipedia.png Also I said that Houston cannot control flooding because Houston does not have regulatory agencies. HCFCD & the Tx Water Board are not regulatory agencies. I asked if the Corps is a regulatory agency. (I think yes, but they all shook their heads no). They said Houston has no zoning. We cannot prevent anyone from building. I said the Corps has a duty and an obligation to protect the Petro/ chemical industries and the Port of Houston. Silence. I asked why when on a family vacation, we drove all over Florida in 2017 and we saw USACE signs everywhere announcing flood mitigation projects. Why no federal projects here in Houston? Silence. One reason why the operation of Addicks & Barker dams has been horribly mismanaged is because the District Commanders are rotated every 2-3 years. No District Commander is in charge for a sufficient period of time to undertake extensive replacements and repairs. Another reason why the operation of Addicks & Barker dams has been horribly mismanaged is because the District Commanders are obsessed with keeping the costs of operating the dams low.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
Thank you for the opportunity to comment on this master plan revision. The combined 26,000 acres contained in these reservoirs is a natural resource treasure in the midst of six million people in the greater Houston urban area. Home to incredible wildlife, including bobcats, coyotes, deer, beaver, river otters, bald eagles, osprey, wood stork, wood ducks, great blue heron, woodpeckers, kingfishers, barred owls, alligators, roseate spoonbills, many turtle species, many more bird species (both local and migratory), raccoons, rabbits, opossum, snakes, etc. Basically, any wildlife native to southeast Texas lives in these reservoirs. I offer the following comments to be considered as management features moving forward. 1. Please aggressively support state and local government efforts to remove feral hogs. These animals are doing great damage to the reservoirs and competing	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural

COMMENT	RESPONSE
with native species for food resources. Also, if there is any federal funding available, please pursue some of the new methods to remove or reduce the feral hog population. 2. Please support state and local government efforts to remove invasive McCartney's Rose shrubs, Chinese Tallow and trifoliate orange trees. 3. Please support state and local government efforts to preserve, maintain & improve natural surface trails in both reservoirs. These trails provide unmatched hiking, wildlife viewing and mountain bike opportunities in the Houston area. Basic maintenance (tree trimming and mowing) should be considered an acceptable activity on natural surface trails in all classes of land in the reservoirs, including environmentally sensitive areas. 4. Please consider annual or quarterly trash removal at driveways within the reservoirs where illegal dumping is currently occurring and prosecute violators. 5. Preserve wildlife and wildlife habitat. 6. Improve parking areas for access to trails and wetlands/lake areas. Two examples are: 1) the area west of Eldridge, just north of the Addicks Dam, and 2) the area just south of Patterson on the east side of Eldridge. These areas should be cleared in the master plan for Harris county or others to place gravel or pave these locations to provide all weather access to the trails and wetlands. 7. Please make all efforts to prevent motorized vehicle (4 wheeler & motorcycle) access by installing gates that allow hikers and bikers, but prevent all terrain vehicles and motorcycles. Also, please prosecute violators. 8. Allow hike & bike trail connections to the upstream ends of the dam roller compacted spillways since the spillways offer a good recreational and alternative transportation option for nearby residents and reservoir visitors alike. 9. Take all measures possible to prevent firearms prosecute violators. 10. Document & preserve the historic sites within the reservoirs 11. Consider terminating the military lease north of Buffalo Bayou & east of Barker Clodine which doesn't seem to be used for military purposes. 12. Install or support installing trash booms & trash removal equipment where waterways enter federal land, such as Buffalo Bayou, Mason Creek, Langham Creek & Bear Creek. There is literally tons of trash caught up in trees down across reservoir waterways and this trash removal system would not only provide a clean environment within the reservoirs, but would also prevent trash moving farther downstream, ultimately to the Gulf of Mexico. 13. Support state and local government efforts to establish native prairies and native plant species within the reservoirs.	and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
Please keep it wild. No more “development” which would destroy the natural wooded areas needed by wildlife.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project’s natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project’s natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
I live adjacent to the Barker Reservoir. The Corp of Engineers Shall change the Dam structures to only impound water to the Federal owned property boundary. The change of the overflows at the back of the dams so they do not flow on to unowned property will and should be the direction the project proceeds. The Project creep of the last 80 years has set the government up as the bad guys, I spoke to the land owners who the land was taken from to build these two Dams. The families are still not happy with the Corp. The Corps was and is the bad guys on the West side of Houston. It is time your organization took care of all the people not just a few downstream who have more political power. Start today doing the right thing, Change the Dams structures so they can not flood on land not owned by the government.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with

COMMENT	RESPONSE
It is the solution, it is a easy solution, cheap, just move the dirt and pour some spill way concrete.	Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
I wanted to provide feedback and input for the Barker & Addicks Dam. Can we please consider more biking trails in the dam area for future use, and also adjust the gates at roads so that bikers/hikers/walkers can easily access? Otherwise folks have to go under OR hop over which can lead to injuries. I would love to participate if at all possible in a committee if such one exists on how the dam area could be better use for public use.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources.
Dear Sirs, I have to say that I was surprised to see that USACE appears to have proposed nothing from the flooding of Hurricane Harvey in 2017, but instead is looking for public comment. Here are my public comments. Of the two flood control reservoirs, Addicks came the closest to failure in 2017, but I cannot say if Barker Reservoir was also a near miss. So my suggestions are to either make the reservoirs bigger and to significantly increase the drainage capacity out of the reservoirs to the Houston Ship channel as follows. Many of these ideas should be done together as there is no single fix it that will cure it all.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of

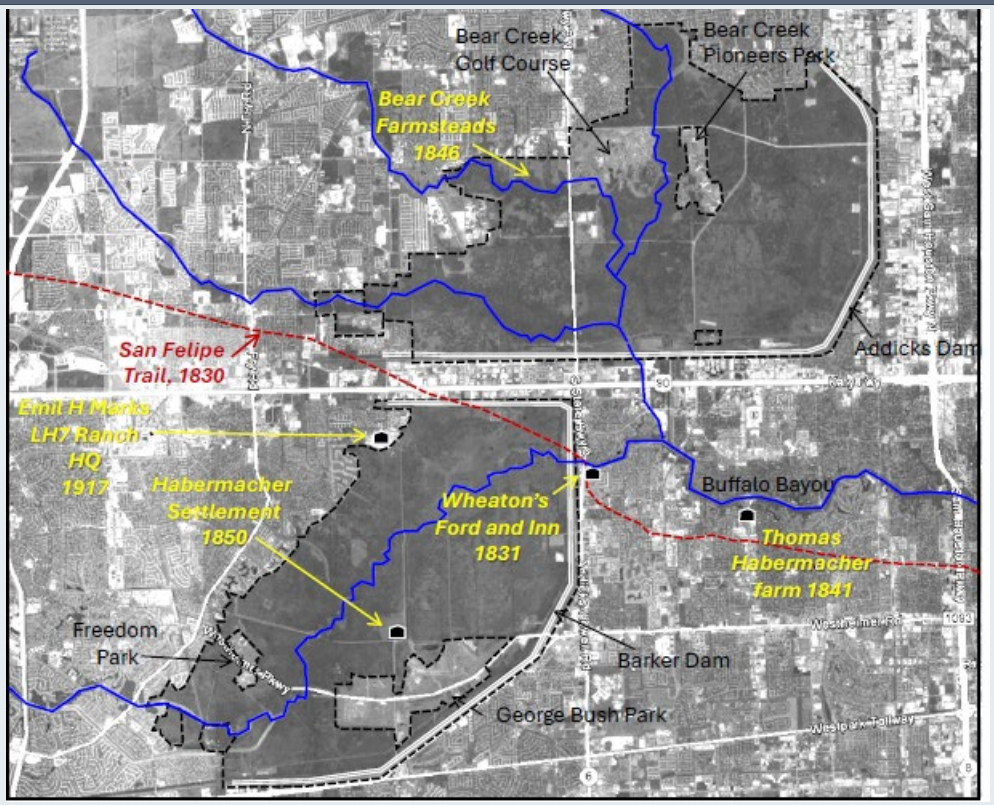
COMMENT	RESPONSE
1. Increase the thickness, height, and length of Addicks Reservoir Dam and strengthen with reinforced concrete at the deepest parts of the reservoir, including more flood gates and an expanded spillway. 2. Consider doing the same with Barker Reservoir, if needed. 3. Remove accumulated silt from the bottom of the reservoirs to restore storage capacity lost over the years. 4. Elevate Eldridge Parkway, Clay Road, and Highway 6 with drainage underneath. 5. If realistic, add one or more additional flood control reservoirs upstream of Addicks and perhaps Barker Reservoir. 6. Consider widening and deepening Turkey Creek to better handle waters that divert around the Addicks Dam. 7. State, County, and USACE would need to buy out residential and commercial properties in the upstream flood pools, especially if the impacted reservoir is expanded. 8. Deepen, widen, and debottleneck the reservoir spillways and bayous all the way to the Houston Ship Channel. Most, but not all of the impacted land is already public parkland. The parts that are private land would need to be bought out. 9. Consider building flood tunnels from Addicks and Barker to the Houston Ship Channel.	outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
David Mackintosh – Chief, Houston Project Office, The Corps of Engineers (COE) should operate the Addicks and Barker Reservoirs in a manner such that no rain or other sourced water shall ever encroach upon privately owned property upstream (i.e. west) of the Reservoirs. The COE should immediately open the dam gates to allow water to flow out of the reservoirs whenever water in the Reservoirs threatens to move from government owned property onto privately owned property, including homeowner property adjacent to and immediately west of the government owned Reservoir property. No flood waters should ever be allowed onto private property upstream from the Reservoirs. Thank you for the opportunity to comment.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.

COMMENT	RESPONSE
I have the following comments to the Addicks and Barker Master Plan Revisions, which I understand can be made during the period of August 19 to September 18, 2024. 1.) General Comment: Whatever revisions are made to the existing master plan shall be consistent with the primary purpose of the Addicks and Barker Reservoirs, which is "flood control". I am very much in favor of continuing some development and of maintaining existing facilities within the reservoir boundaries including sports playing fields (soccer, baseball, and similar), archery ranges, equine rehab facilities (especially for children & teenagers), public picnic areas (both covered and uncovered), walking/hiking/biking paths and trails, some animal/family zoo facilities, some memorials (such as for war veterans), and limited, relatively small covered pavilions for hosting special events such as for Memorial Day, Veterans Day, and local cultural events. With all such facilities, asphalt and concrete cover should be minimized and naturally absorbing soil should be maximized to the extent reasonable. The aforementioned amenities are valuable to the community and need to be maintained and enhanced, but, at the same time, they need to be coordinated with the core flood control mission of these reservoirs. The major flooding that occurred during the Tax Day, Memorial Day, and Hurricane Harvey flooding events over the last decade are obvious reminders of why that needs to be the case. The growing effects of climate change, which now seem clear (whatever the cause), only serve to highlight the increasing importance of flood control in the watershed of these reservoirs. 2.) There is quite an abundance and variety of wildlife within the reservoir boundaries. Adding some bird feeder areas would be meaningful. Perhaps, the Corps could occasionally invite a naturalist to give some guided tours to view flora & fauna within the reservoirs. 3.) Limited grazing is acceptable as long as such grazing is managed and doesn't work against the flood control mission. 4.) It will likely become increasingly important for the Corps to manage wildfire potential within the reservoir boundaries, as hot dry spells likely increase in the years ahead. This is important not only to the immediate neighbors surrounding the reservoirs but to the adjacent communities as well. 5.) The Corps should use native plants, grasses, and trees to replant any areas within the reservoirs that get devastated by flooding, fire, etc. I believe the Corps is already doing this where the public golf course used to be (i.e. the area just south of Clay Road and east of Highway 6), and so I'm encouraging them to continue doing so. By the way, I'm not against converting some area to golf course usage again, if a responsible leasee/operator can be found. 6.) I've heard comments of people wanting to add a larger pavilion for hosting cultural and entertainment events of some size (like a mini Cynthia Woods Pavilion in The Woodlands) somewhere within the reservoir boundaries, if contributing partners could be found in the corporate and/or governmental communities. Though the idea is appealing, it unfortunately does not appear consistent with the flood control mission and would probably never get the sponsorship needed to bring to fruition because of the high flooding potential for such a facility. I want to thank the Corps for updating the Addicks and Barker Master Plan and for soliciting comments from the community.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan. Outside of master planning we are currently working with HFD Wildland, TFS, and NPFTC to perform wildfire mitigation projects. I don't know the best wording to respond or where it might be listed in the master plan.

COMMENT	RESPONSE
Dear Galveston District, I'm sorry we weren't able to attend the open house on Monday, Aug. 19, presenting information about the revised Addicks and Barker Master Plan. I'm trying to write up a short item for our website with links to your presentation. However, I'm confused. The website says the revision of the master plan is necessary because the plan is out of date and no longer compliant with current regulations. But at the same time the Corps says there are no proposed changes to the plan? Could you please clarify? Thank you.	The Master Plan is currently in the Agency/Public Scoping Notification and Comment Period. At this point in the revision process there are no proposed changes The Corps is requesting written comments for recommended changes to the existing master plan. A Draft Master Plan with the proposed changes will be released to the public in the winter of 2026.
I would like to submit the following comments: 1. The plan should include provisions for good access to and maintenance of the areas surrounding cemeteries within the reservoir footprints. 2. Proactive invasive plant and animal control should be allowed and encouraged by private and nonprofit entities. It is not enough to simply address the transfer of invasive species by other activities within the reservoirs as the current plan states. The new plan needs to encourage a goal of 100% removal of invasive species including Chinese tallow tree, McCartney rose, Chinese ligustrum, deep rooted sedge, apple snail, placostama fish, and feral hogs. 3. The plan should encourage native habitat restoration, especially native riparian, wetland and tall-grass prairie habitats, within the reservoir footprint. Please also consider habitat restoration within the reservoirs as potential mitigation for other USACE Civil Works project impact	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in

COMMENT	RESPONSE
	Chapter 3 of the Master Plan.
Hello, I'm writing to give input to the Addicks and Barker Master Plan revision, as requested in your posting. My background is as a professional geologist and historian, but I'm also currently the Vice President of the Harris County Historical Society, and a past member of the Harris County Historical Commission. As a member of that commission, I authored and placed three illustrated panels in 2022 at the Barker Reservoir dam site that reflect on the history of the historical ford and trail there across Buffalo Bayou in frontier days. In 2015, I authored an extensive history of the west side of Houston, including the area of these reservoirs, entitled Pleasant Bend: Upper Buffalo and the San Felipe Trail in the Nineteenth Century. I am also a member of the Houston Archeological Society, and in 2021 authored another book entitled A Prehistory of Houston and Southeast Texas: Landscape and Culture, which contains a significant amount of information on Native American activities in and around the area of the Addicks and Barker reservoirs. I have given numerous talks on these subjects to various local historical, natural history, and archeological groups. My understanding is that you do not feel that any changes to the 2009 Master Plan for the reservoirs is warranted. I must respectfully disagree, as the sections on historical and cultural matters in that plan are either outdated or erroneous, or both. Although hardly mentioned in that report, the area of these reservoirs contains significant remnants of our region's history and prehistory that merit attention. I believe that citizens in our area would enjoy and benefit from potential actions to highlight this history. Some of these historical sites are mentioned below. 1. BARKER RESERVOIR. The 2009 report states that "the majority of the property on Barker Reservoir was left unoccupied and unimproved until the late 1870s." That statement is incorrect on several levels. Most significantly, in 1831 John and Elizabeth Wheaton received a grant of 4,605 acres along Buffalo Bayou that surrounded a ford on that Bayou located at the present Highway 6 bridge (Figures 1 and 2). Their land grant extended both west of that crossing (underneath present Barker Reservoir) and to the east. They built a frontier inn at the crossing, along the frontier San Felipe Trail. That was the first commercial road in Houston, and connected the early town with the colonial capital at San Felipe. It connected Houston to cotton grown by enslaved workers on the Brazos River plantations, and that trade built our city. When Emancipation came in 1865, it was along this old trail that newly emancipated African Americans trekked to Houston and places farther east. West of that old bayou ford, the old trail transected the northern part of Barker Reservoir. When the Barker Dam was constructed in the 1940s, work crews found the remnant ox wagon tracks of the old trail. The piece of the San Felipe Trail underneath northern Barker reservoir is the only	Noted. The revised Master Plan seeks to update the historical and cultural resources from the 2009 Master Plan.

COMMENT	RESPONSE
remaining segment of that trail left in its natural state in the Greater Houston area. It is a very significant cultural resource, unmentioned in the 2009 USACE Master Plan. Another significant Barker Reservoir cultural resource unmentioned in the Master Plan is the location of the former Habermacher Settlement in the southern part of the reservoir (Figure 1). The Habermacher family, immigrants from Alsace, France, began settling in the future Highway 6 area in 1841. A son Joseph Habermacher settled within the modern reservoir in 1851, beginning a “Habermacher Settlement” that by 1880 contained a post office, a church, a school, and a depot on the Texas Western Railway. The settlement folded by the early nineteenth century. Habermacher descendants were among those ranch people who were displaced by the building of the reservoirs, and that site should be marked. Just outside of Barker reservoir to the west was the headquarters of the LH7 ranch, most of the land of which was required by USACE for the Barker Reservoir. The old ranch buildings were destroyed by apartment developers in 2014, but underneath the reservoir just to the east lies the site of the original Houston rodeo grounds of the 1920s and 1930s, built by Emil Marks, who played a role in the survival of the longhorn cattle breed and founded the current Houston Rodeo’s Salt Grass Trail. That old rodeo site too should be marked. 2. ADDICKS RESERVOIR. The 2009 report mentioned the German farm families displaced by construction of the Addicks Reservoir, and that the earliest of these arrived in the 1850s. Actually, members of the Groschke, Striepe, Meyer and Brandt families were living on farms at what became the core of the Bear Creek Community at least as early as 1846. These families fled the beginnings of the 1848 war in Europe to settle here (Figure 1)	

COMMENT	RESPONSE
 Figure 1. Selected early historical sites of the Addicks-Barker reservoir area Their farms lasted a century but were required for the building of the reservoir. The buildings were destroyed in the 1940s, but the outlines of their fields are still easily visible in aerial photos of the area, south of Pine Forest Lane within the USACE property (Figure 3).	

COMMENT	RESPONSE
 Figure 3. Relict outlines of German farmsteads established in 1846 and razed in 1946. There are numerous archeological remains there of the building sites – foundations, wells and even a small family cemetery – that were studied by Bear Creek descendant Andrea Stahman Burden in a 2004 Texas A&M master's archeology thesis. The farms at minimum should be marked and their stories told. There are a number of photographs of these buildings that were taken before they were razed, but most of those records were destroyed during the 2017 Harvey flood at the USACE office on Highway 6. I made copies of most of them before that flood occurred, and many can be seen in the book Pleasant Bend (e.g., Figure 4).	

COMMENT	RESPONSE



Ca. 1854 pioneer dogtrot home of Frederick Brandt and Catherine Meier Suhr Brandt, prior to its demolition in 1946



The pioneer Brandt family, 1876



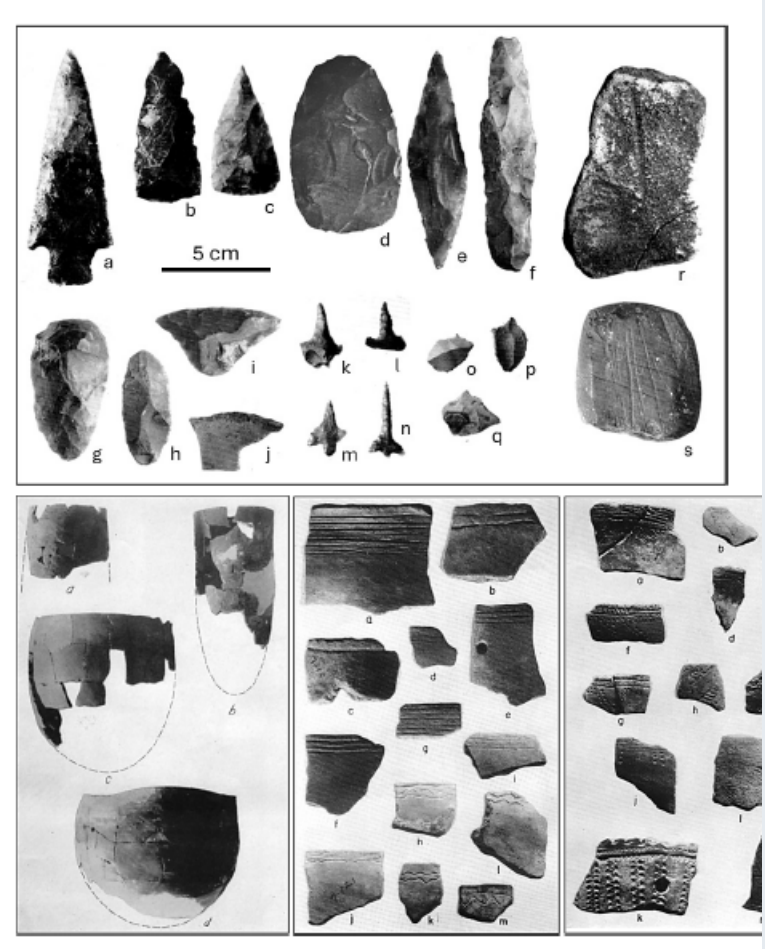
Outbuildings of the Brandt farm

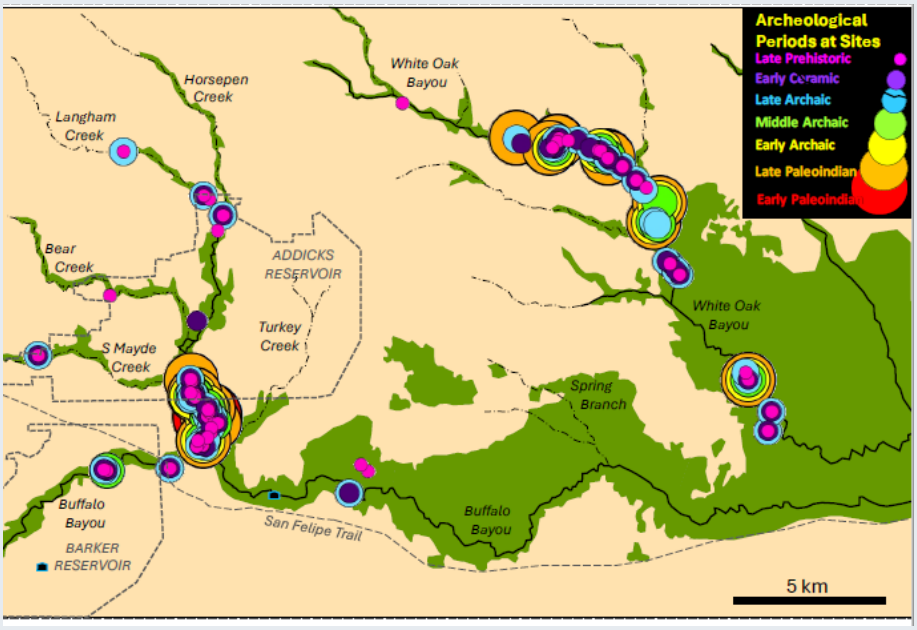


Figure 4. Example photographs of one of the pioneer Beer Creek farmsteads, taken by USACE prior to demolition of the buildings in 1946

These properties along Pine Forest Lane comprise the original core and oldest parts of the Bear Creek Community. In about the 1980s, some land was set aside by USACE and Harris County for a “Bear Creek Pioneers Park” (Figure 1). Spearheaded by the late well-known newsman Ray Miller, new park roads were built and named for early pioneers, and there was a plan to rebuild some of the pioneer dwellings. After Ray Miller died in 2008 that plan was never completed, and the area is today a complex of sports fields and picnic pavilions. Regardless, the “Pioneer Park” area is not located on the original 1846 section of the community. The original 1846 plots, which were tidy farms at the time of USACE takeover, have been allowed to be overtaken by invasive trees and woody brush. Those farm sites remain a very significant cultural resource that is unmentioned in the 2009 USACE Master Plan, which states that ‘the historic resources primarily date between 1900 and 1930…the majority are related to early 20th century home sites.” In correction, many of the homes and outbuildings destroyed in the Pine Forest/1846 area dated back to the mid to late 19th century. The oldest known was the Frederick and Catherine Brandt home, built in 1854 (Figure 4).

3. NATIVE AMERICAN SITES AND DEGRADATION OF NATIVE PRAIRIE. Perhaps the most significant shortcomings of the 2009 MP are its cursory treatment of Native American/archeological sites within the reservoirs as well as the neglect of native prairie landscape. The report mentions only that “small lithic scatters” and ceramic sherds were found on some of the pimple mounds along the bayous. However, one of the earliest professional archeological excavations in the State of Texas was done at multiple sites in Addicks Reservoir in 1947 by the Smithsonian Institution,

COMMENT	RESPONSE
and the artifacts are housed at the Smithsonian's Bureau of American Ethnology in Washington DC. Artifacts included knives, drills, gravers, scrapers, and sandstone grinding tools, as well as parts of incised-pattern cooking and storage pots that include some of the earliest known types of pottery in North America, called Tchefuncte ware (Figure 5).  Figure 5. Upper image, knives, spear points, and other tools, and lower image, ceramic pots and sherds, excavated from the Addicks Basin area during a Smithsonian expedition led by Joe Ben Wheat. Courtesy of the Bureau of American Ethnology, Smithsonian Institution. Those first excavated artifacts reveal nearly continual hunting and residential activity at sites along Langham Creek, South Mayde Creek and Buffalo Bayou stretching back from historical times to 13,000 years ago (Figure 6).	

COMMENT	RESPONSE
 Figure 6. Excavated archeological sites of western Harris County, with ages (Early Paleoindian stage ca. 13,000 years to Later Prehistoric AD 1600). Addicks and Barker Reservoir outlines shown for reference. Later excavations by the Houston Archeological Society found a very large group of similar archeological sites extending from the southern part of Addicks Reservoir into Terry Hershey Park south of I-10, and thence into Barker reservoir. Unknown at the time of the USACE 2009 report was the regional significance of these sites along the upper tributaries of Buffalo Bayou at the reservoirs. Research results discussed in A Prehistory of Houston and Southeast Texas show that Native Americans regularly used this confluence of tree-lined tributaries as an entrapment and kill zone for herds of bison that migrated annually into the native coastal prairies of our area. Hunters ran the bison into tree-lined cul-de-sacs where creeks branched off from Buffalo Bayou, and at those spots other hunters were waiting with atlatls and, much later, bows and arrows (Figure 7).	

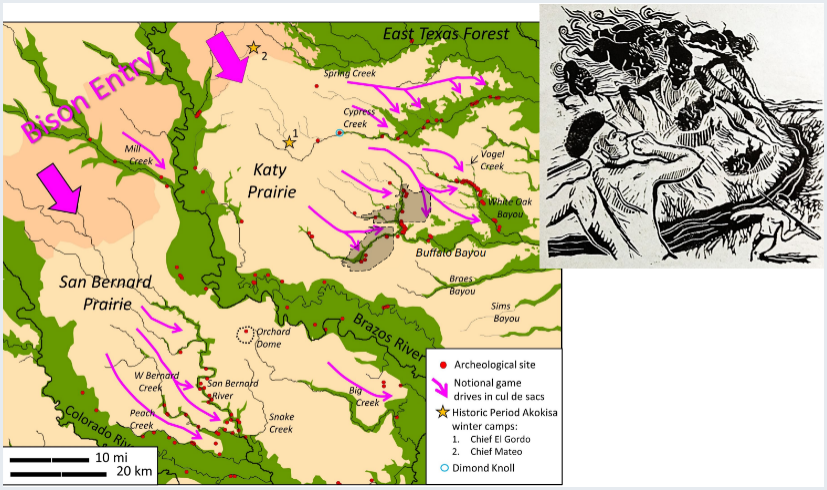
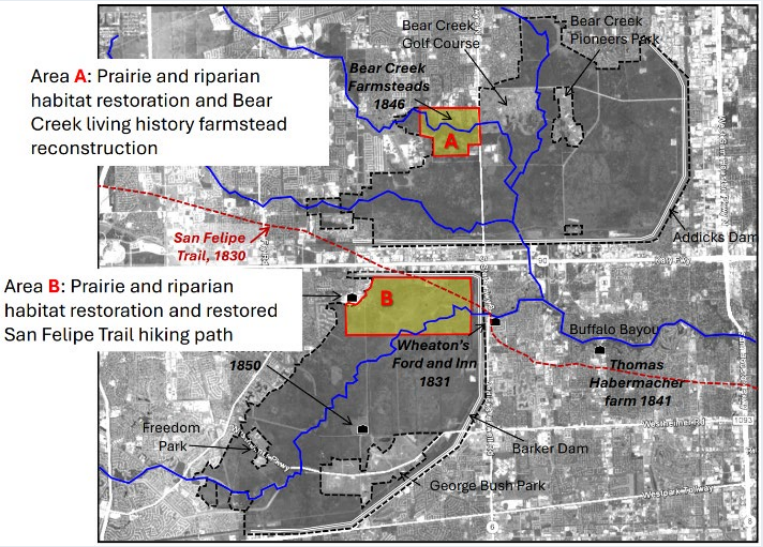
COMMENT	RESPONSE
	

Figure 7. Interpreted bison migration entry and natural migration cul-de-sacs (pink arrows). The ends of these cul-de-sacs, where bison tumbled over creek banks, made ideal ambush points for early hunters. Red dots show archeological sites. Addicks and Barker reservoirs highlighted in grey shading.

Analysis of spear and dart points show that Native American hunting groups came from as far as central Texas, the southern Texas coast, and nearby east Texas to take part in the annual harvest. An eyewitness account of bison hunting in the reservoir general vicinity written by Frenchman Simars de Bellisle in 1720 noted that both local Akokisa and central Texas Tojal (Tonkawa) Native American hunters were active here that year, congruent with results taken from older archeological finds.

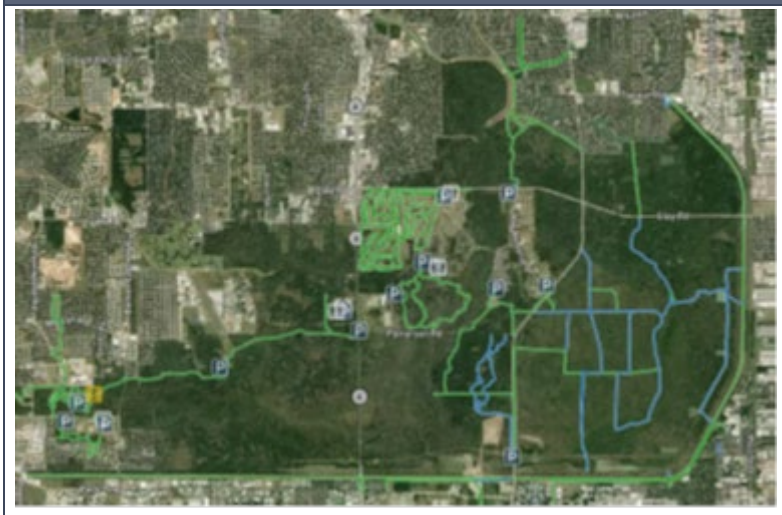
In the 1920s and 1930s, Houstonians would drive out to the Addicks Basin area to hunt for arrowheads in this rich array of archeological sites, which also included a significant burial mound. Most of these sites lying just outside of the reservoirs in Terry Hershey Park were destroyed by bayou straightening and other flood control operations in the 1940s and 1950s, but many sites lying within the reservoirs are relatively undisturbed (with others yet to be discovered). These are significant cultural resources that speak to 13,000 years of sustainable use of prairies by Native Americans in our area. Unfortunately, in the 80 years of stewardship of the reservoirs by USACE, these prairies have been allowed to be overrun with invasive trees and woody undergrowth, yielding a tangled, often impenetrable mass of woody material except where the County has kept sports fields and recreational areas open.

SUMMARY AND RECOMMENDATIONS. Houston is not a city known for preservation of very early cultural sites and landscapes, and yet, the Addicks and Barker reservoirs contain large areas with very significant historical cultural and natural resources. Although there has been much development of land for recreation – sports fields, dog parks, golf courses, and equestrian centers – there has been little attention paid in the past to historical and cultural resources, which are things sorely lacking in Houston relative to cities like San Antonio, New York, or Boston. The reservoirs contain perhaps the largest urban wilderness of any major city, the area of which dwarfs by many, many times over the size of Memorial Park. And yet, the number of visitors outside of the developed sports parks is relatively small. Most of the time, reservoir land is dry and open, and in my opinion the land is not nearly being used to its fullest for the

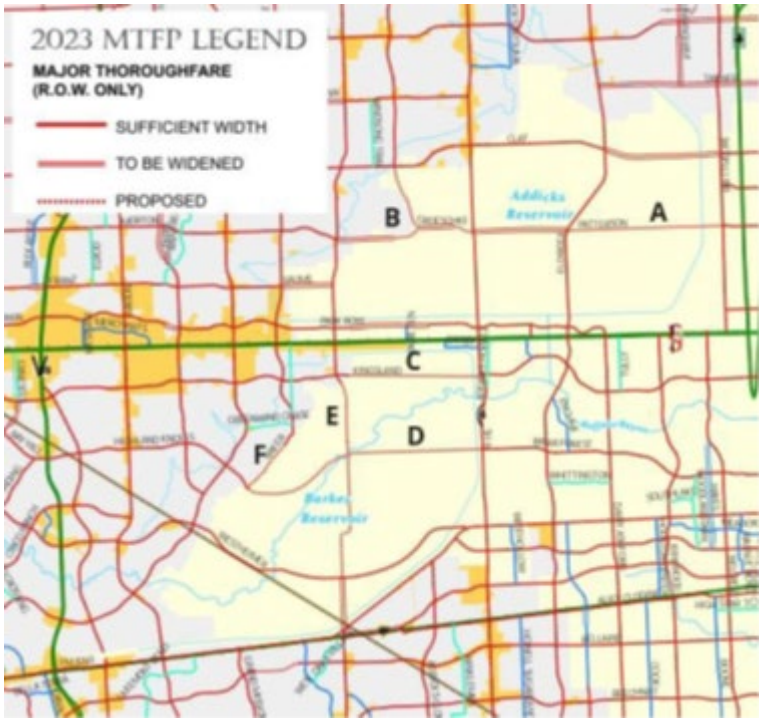
COMMENT	RESPONSE
surrounding millions of Greater Houston residents. I would recommend two projects in particular that would significantly enhance public use of the reservoirs and raise awareness of the area's rich history and landscape, while not detracting from the reservoirs' main function as flood protection. These two suggested areas are shown in Figure 8: 1. Area A is located south of Pine Forest Lane and immediately west of Highway 6, in Addicks Reservoir. It includes the area of the 1846 pioneer German farmsteads, which were carved out of native prairie and riparian forest. One or more of these farmsteads could be restored and a few farm buildings reconstructed for a living history farm landscape. Adjacent parts of the coastal prairie and the riparian habitat along Bear Creek should be restored to their original condition, yielding an intact pioneer-era landscape. This area is in the upper elevation of Addicks Reservoir, so flooding has only occurred occasionally over the years. Thus, the threat to buildings would be no more than that to the many other existing recreational buildings in the reservoirs. Two or three simple farm buildings and some fenced enclosures and orchards, like those shown in Figure 4, would be relatively simple and economic to reconstruct. Such a project would need to attract regional or national grant funding. With some vision and support from USACE, County, City, State and Federal leadership, it seems not inconceivable that the National Park Service or the Texas Historical Commission could be involved both in this project as well as that in the following Area B. 3. Area B is in the northern part of Barker Reservoir (Figure 8).  Figure 8. Proposed habitat restoration areas with historical features. It was originally native prairie, with a strip of riparian forest along Buffalo Bayou. Restoring a large swath of native prairie on either side of the bayou, with a hiking trail placed along the original location of the San Felipe Trail, would provide a glimpse of Houston's natural heartland at its earliest origins. The hiking trail would start at Barker dam site, where three interpretive markers already tell the story of Wheaton's Inn of 1830 and the use of the trail by African Americans after Emancipation in 1865. The trail would then follow the original position of the old frontier San Felipe Trail of 1830. Other markers could be	

COMMENT	RESPONSE
added along the trail to highlight the use of the prairie and bayou during over 13,000 years of Native American presence here, as well as their methods of bison hunting. These panel exhibits and the hiking trail would easily survive periodic flooding, as would the prairie vegetation. Once re-established, only periodic mowing once or twice a year would be needed to keep up the coastal prairie landscape. It should be a regional showpiece. These two areas, combined, would greatly enlarge the public park space in Houston. Neither area is visited much today, as they both are covered by tangled woody invasive growth. I recommend that such enhancements be considered for incorporation into the revised USACE Master Plan for future development.	
Over the years, wetlands have decreased. I have noticed this is three areas all south of Nobel Road. The southeast area once had significant LeConte's Sparrows but maybe a decade ago the area was better drained and shrubs removed. The area between Nobel Road and the gas well once had Sedge and Marsh Sparrows and for the last 4-5 years has not had the water level sustained. The third area is south of Seminole Pipeline adjacent to a long abandoned gas well. I mention this as one of the objectives is to not reduce wetlands. Note: the American Bittern had been seen in each of these areas. Quail is mentioned and they have long since been gone, maybe 15-20 years ago. They may return as I was led to believe fire ants were the issue and fire ant mounds have decreased. Since work on the Clodine ditch east of the levee was done (2-3 years ago) wintering Hooded Mergansers have been seen regularly. The work on the ditch changed the birds frequenting the ditch. I do not know the factors involved but the specie mix has been altered generally having more birds. For the Buffalo Bayou Christmas Count the best sparrow habitat in the circle had been Barker Reservoir. Many factors have combined so the count no longer produces 10+ sparrow species. Part of this is management. Harris county seems to place a premium on increasing the grass cutting with little regard for wild flowers or winter bird habitat. The land under the power lines once had multiple sparrow species but drainage and shrub removal reduce the specie count and bird numbers. Feral hog pens, now inactive, are still blocked from public access in the area east of Barker-Clodine/Cypress Road. There is also remaining a sign saying no access to Hwy 6 from Barker-Clodine and that has not been true for 2 years. I have observed Bobcat and they are not mentioned. Beavers may be gone but evidence shows they were there possibly during the period covered by the report.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
Greetings, I would like to register a comment with the USACE and all its other partners, including the City of Houston. I mention the latter because this process cannot be managed by the USACE alone and is going to be joint effort, including with non-government sources in all likelihood. Houston has during my lifetime always suffered flooding in direct proportion to its expansion. The more concrete, the more flooding. The first solution to this was the reservoirs, and the second was the retention ponds, but both have revealed their limitations. I would like us to adopt the Tokyo Solution: https://www.bbc.com/future/article/20181129-the-underground-cathedral-protecting-tokyo-from-floods In this, the reservoirs would be a first stop before the water is channeled out of the city area through underground channels, sort of like the LA river canal but beneath the earth. Because Houston is at sea level, we cannot rely on regular gravity-based drainage. This water is valuable, in my view. Most of the world is short on safe drinking water, and rainfall is desalinated and can be filtered for us in agriculture or homes. I realize this proposal will require the City and USACE to work together with private partners, but I do not think the problem of the Addicks and Barker reservoirs can be solved in isolation. It needs to be part of a larger solution to the constant flooding in Houston.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
Thank you for the opportunity to comment on the upcoming Master Plan study. I live just north of Addicks Reservoir and work in the Energy Corridor. I'm involved in efforts to establish more opportunities for active transportation and recreation in my area. I'm familiar with the 2009 Master Plan. 1. Several natural surface traces have seen increased public use over the past 10 years, generally on the legacy roads and along the creeks. Figures 1 and 2 show both existing developed paved trails and natural surface traces. The natural surface traces are valuable when the reservoir is dry as access to this island of wilderness in the urban sea of the Houston metropolitan area. Some of the traces cross areas that are currently classified as environmentally sensitive areas (ESA). There are short sections of low points on these trails that would be much more passable with a limited amount of gravel and small (less than 12") culverts. The Texas Parks and Wildlife annual call for projects could support volunteer-labor low-impact upgrades, but the permitting process in ESA is a concern and has precluded pursuit of this funding source in the past. Some recognition in the Master Plan that would facilitate low-impact improvements by volunteers in areas classified as ESA would be valuable.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project

COMMENT	RESPONSE
 *Figure 1 Paved Trails and Natural Surface Traces in Addicks*  *Figure 2 Paved Trails and Natural Surface Traces in Barker* 2. There are many opportunities to develop paved trails to support active transportation to existing recreation destinations in the reservoirs and to provide transit across the reservoirs shown conceptually in Figures 3 and 4. Paved multi-use paths to destinations in the reservoir can be funded by the Federal Lands Access Program (FLAP). Trails on federal property outside the reservoir, like the existing George Bush H&B Trail, the Chatterton-Dairy Ashford H&B Trail and the Terry Hershey Extension Trail, can attract state, county and city funding. Indications in the Master Plan that these opportunities can be pursued is important, because the perception of permit friction has historically discouraged the detailed study needed to get an alignment funded.	purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
 *Figure 3 Possible Active Transportation Alignments in Addicks*  *Figure 4 Possible Active Transportation Alignments in Barker* 3. I encourage you to preclude the expansion of motor vehicle roads in the reservoir as envisioned by the City of Houston's 2023 "Major Thoroughfare and Freeway Plan" (MTFP) (Figure 5). In general, these roads reach no destinations inside the reservoirs and only serve as parallel routes to existing roads. Specifically: -The only destinations inside the reservoirs for the Hammerly extension and Patterson expansion [A] are the Bear Creek Pioneers Park and the county fairgrounds. I frequent this area and these destinations are already adequately served by the existing roads.	

COMMENT	RESPONSE
-The extension of Queenston south and expansion of Groschke [B] could only be justified by dense development of the private parcels east of the airport. I've never encountered any delays in the area of the West Airport area as currently developed. -The crossing at Kingsland [C] and at Briar Forest/Noble Road [D] and the extension of Barker Cypress [E] would serve no new destinations. -The extension of Baker Road south [F] could only be justified by dense development along the west side of the federal lands.  *Figure 5 Excerpt from City of Houston 2023 MTFP* To summarize, the two reservoirs are the lungs of Houston and we need to keep them healthy. Improving active transportation access around and through the reservoirs, secondary to the flood control mission, will provide low-impact public access to the closest thing Houston has to wilderness in the metropolitan area.	
Would be great to have some sort of amphitheater or other type entertainment venue. There is nothing like that in the area. Not in the area of your scope, but it could make Terry Hershey so much more usable if a bike lane were put in on the North Side of Memorial, West of Eldridge continuing to the Terry Hershey parking lot.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized

COMMENT	RESPONSE
	project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Is tunneling under I-10 to the gulf still under consideration? I prefer it.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural

COMMENT	RESPONSE
	resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
USACE management of env. Sensitive areas within leased land. How can HCP4 support management of ESA plants within the land we lease. Maps detailing area of Prairie Dawn; how to protect from public? Land Management for Habitat Restoration within recreational park land. Old golf course could be eligible for funding from Galveston Watershed.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
It would be very desirable if the NW corner of the Addicks Reservoir at HWY6 and Clay RD could be designed for the potential installation of an outdoor music amphitheater venue to bring live entertainment to West Houston.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized

COMMENT	RESPONSE
	project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
NON-GOVERNMENTAL AGENCIES	
Dear (NAME REDACTED), It was good meeting you yesterday at the Corps public meeting about the revision of the Addicks/Barker Reservoirs (ABR) Master Plan. The Houston Sierra Club provided scoping comments for the ABR Master Plan on July 26, 2024. After talking with you, seeing the presentation, and talking with others at the public meeting, the Sierra Club provides these additional public comments: 1. If the Corps decides to provide more storage capacity in ABR, the Sierra Club recommends that the top 1 foot or more of topsoil be saved so that any prairie grass/wildflower seedbed is saved and can be reapplied to assist in the restoration of native prairie plants. 2. If the Corps decides to provide more storage capacity, it's very important that shallow water aquifers, water lens, and groundwater table/level is studied so that beneficial biological uses of this water in seeps, during hot weather, and flows into tributaries is protected and not degraded. 3. There may be opportunities in existing bottomland hardwood forested wetlands to add native trees in our area via planting to provide greater diversity and restoration of the bottomland canopy, midstory, and understory. 4. The Sierra Club suggests that existing overflow areas where development has occurred are prime areas for acquisition to reduce human flooding problems and provide greater buffers between development and ABR. There may be areas downstream of ABR whose acquisition would assist in the biological connectivity of ABR to the rest of the Buffalo Bayou Floodplain.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.

COMMENT	RESPONSE
5. It would be helpful in the draft Master Plan to have the proposed recreation areas, which colored black on the ABR maps, listed with the acres for each recreational activity proposed and the agency who proposed it. 6. It would be helpful in the draft Master Plan to have high and low-density recreation areas separated on maps and discussed separately in the ABR Master Plan. The Sierra Club thanks the Corps for this opportunity to comment.	
Coastal Prairie Conservancy comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston Regional Group of the Sierra Club comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public

COMMENT	RESPONSE
	interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston Wilderness comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the

COMMENT	RESPONSE
	project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston stronger comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
GOVERNMENTAL AGENCIES	
City of Katy comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent

COMMENT	RESPONSE
	with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

(1)One additional public comment was received via .pdf file, but it the file was corrupt, and the study team was unable to open the document.

5615 Kirby Drive, Suite 867
Houston, Texas 77005-2458

713.523.6135 P
713.583.0683 F

www.coastalprairieconservancy.org
info@coastalprairieconservancy.org

Coastal Prairie Conservancy
Formerly Katy Prairie Conservancy

September 18, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Suite 101
Houston, Texas 77077

Subject: Recommendations to the Addicks and Barker Master Plan

Dear [redacted]:

As the President and CEO of the Coastal Prairie Conservancy (CPC), I want to commend you, [redacted], and the U.S. Army Corps of Engineers for undertaking the update of the Addicks and Barker Master Plan. This process is essential in ensuring the long-term ecological and recreational value of these lands in addition to ensuring the fulfillment of Addicks and Barker's primary flood control purpose. CPC appreciates the opportunity to provide input, particularly in ways that can enhance the ecological and environmental values of these properties, considering their historical significance as coastal prairies.

In addition to our organization's comments and suggestions as noted below, I would also like to note full support for the letter submitted by Houston Stronger. We agree with the ecological and environmental recommendations in the letter along with the suggestion of terrain modification to increase the reservoirs' storm water storage capacity. Addicks and Barker Reservoirs have played a critical role in protecting Houston from floodwaters for the past 70 years – at least until Hurricane Harvey. The suggestions in Houston Stronger's letter regarding terrain modifications can help ensure that the reservoirs can continue to play a pivotal role in flood mitigation long into the future.

We understand the necessity of maintaining certain categories, such as project operations, however, there are several opportunities within other categories to promote conservation and ecological restoration in additional to enhancing recreation and public access. Our comments are intended to more fully amplify ways in which the Corps can ensure that the ecological and environmental values of the property are enhanced.

[redacted]

1. Vegetative Management: Given that Addicks and Barker were once coastal prairies, we recommend focusing on restoring and managing native prairie vegetation where appropriate. This could involve reintroducing native grasses and forbs, managing invasive species, and enhancing biodiversity. The integration of wetlands into these areas could further support native wildlife, improve water quality, and offer educational and research opportunities.

2. Wildlife Management: To create a more diverse and resilient ecosystem, there may be areas where additional habitat restoration projects could be undertaken – ones that support a range of native species, including amphibians, birds, and other wildlife – and contribute to the overall ecological health of the reservoirs. Prairie restoration could certainly improve habitat for upland bird species as well as for pollinators, many of whom are experiencing decline because of the loss of grassland habitat and flowering plants.

3. Low Density Recreation: Enhancing low-density recreational areas with additional interpretive trails and educational signage about the ecosystem and habitats found in Addicks and Barker can serve to protect sensitive areas while educating the public. The development of trails that are light on the land and incorporate boardwalks over sensitive wetland areas can offer unique wildlife observation opportunities without significant environmental impact. In addition, creating more low-density recreation areas will allow the public more recreational opportunities. Access to nature plays a critical role in improving the health and well-being of communities. Studies show that just two hours per week in green spaces can lead to measurable health benefits such as reduced stress, improved mental health, enhanced concentration, and faster healing.

4. Environmentally Sensitive Areas: We recommend expanding the designation of Environmentally Sensitive Areas to include regions that support rare or sensitive prairie ecosystems and newly restored wetlands. Protecting these areas ensures the preservation of their ecological integrity and adds value to the overall landscape. The Corps already works with the U.S. Fish and Wildlife Service to monitor Hymenoxis Texana (Texas prairie dawn) sites, and The Corps pays special attention to the sensitive cultural and archeological sites, including riparian corridors, etc. It would also be good for the Corps to work with Texas Parks and Wildlife and with local groups to ensure that all possible sensitive habitat areas are identified and protected.

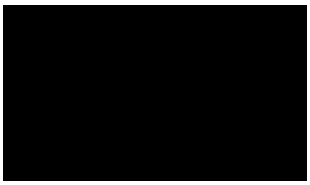
5. Inactive and/or Future Recreation Areas: For future recreational areas, we suggest integrating other recreational uses such as birdwatching, nature photography, and educational programs that highlight the unique coastal prairie and wetland ecosystems.

This approach can create spaces that offer recreational opportunities while contributing to the overall ecological health of Addicks and Barker.

We believe these enhancements will contribute significantly to the ecological value of Addicks and Barker and align with the goal of preserving and restoring the coastal prairie ecosystem. We greatly appreciate the Corps' efforts in managing these lands and look forward to collaborating on initiatives that support both conservation and sustainable recreation.

Thank you for considering these recommendations. We are eager to continue this dialogue and support the implementation of the updated Master Plan.

Sincerely,



July 26, 2024

[redacted]
Chief
Houston Project Office
Addicks/Barker Reservoirs
U.S. Army Corps of Engineers
Galveston District
1011 Highway 6 South
Suite 101
Houston, Texas 77077

Dear [redacted],

Enclosed are the scoping comments of the Houston Regional Group of the Sierra Club (Sierra Club) regarding the U.S. Army Corps of Engineers (Corps), Galveston District, proposed revision of the Addicks/Barker Reservoirs (ABRs) Master Plan (MP), Buffalo Bayou and Tributaries, Fort Bend and Harris Counties, Texas.

1) Non-native invasive plant and animal species (NNIPAS) must be controlled to reduce the negative impacts they have on natural ecosystems, native plants and animals, and human structures. The Corps should put together a list of NNIPAS, the problems they create, and how they will be controlled for the draft MP and solicit input from the public about this issue.

The Sierra Club is concerned that obvious NNIPAS, like Chinese Tallow, are often evident in high use places where the public has easy access. This gives citizens the idea that the Corps isn't focused on reduction of NNIPAS. The Sierra Club understands that this isn't the case and urges the Corps to have an active, visible, NNIPAS control and reduction program.

NNIPAS like Mcartney Rose, non-native privets, Japanese Climbing Fern, Chinese Tallow, Chinaberry, etc., must be prevented and controlled to reduce their impacts on native terrestrial and aquatic plants, native fish and wildlife species, and native ecosystems.

Feral hogs, nutria, crazy ants, and fire ants must also be controlled. The Corps should cooperate with other agencies, counties, cities, towns, and citizens to come up with a regional plan to reduce the numbers significantly of feral hogs, nutria, crazy ants, and fire ants. This can be done but requires patience and dedication. Control of NNIPAS should be a pillar of the MP.

It's important that the Corps prevents the introduction of NNIPAS by keeping restricted and prohibited lists updated, insuring enforcement actions at the boundaries, cleaning equipment and vehicles to reduce NNIPAS spread, and cooperating with local, state, and federal enforcement and administrative officials. NNIPAS will also be reduced in numbers if the Corps focuses on the

maintenance, restoration, and protection of healthy terrestrial and aquatic ecosystems.

The Corps should recruit and train citizens so they can assist with the protection of ecosystems via identification of NNIPAS in ABRs.

2) Climate change, and its effects, like more frequent and intense rainfalls, sea level rise, more frequent and intense storms, and greater temperature heat effects must be addressed. Buffalo Bayou and its tributaries and the ABRs will be significantly affected by climate change. There must be an acknowledgment of this and how the ABRs will be managed for this in the MP.

The best thing to do is to ensure that ecosystems are healthy so that the natural processes they perform function, and they can adapt to climate change. This includes buffers to allow bottomland hardwood forested wetlands and other ecosystems to be protected from other uses so that they remain healthy.

The Corps needs a plan. The Corps needs to think at least 200 years in the future and have points in time where it will implement certain actions when certain climate changes or magnitude of changes occur. This is adaptive management and must be covered in the MP. “Management for the long-term” is a key philosophy along with “work with Nature, not against”, and “keep people out of harm’s way”.

The Corps should address the increase in temperature and heat due to climate change with safety information and shade structures (small and integrated into the landscape) so that people are protected and forewarned about this danger.

3) Environmentally sensitive areas are important. What is equally important is the level of protection from human action and activities that these areas receive. It’s very important that there be adequate personnel to conduct patrols to ensure that illegal uses, actions, trespassing, and damaging activities are limited, minimized, and avoided. The Sierra Club agrees that maintenance, protection, and restoration of wetlands in ABRs is a high priority.

Some of this protection can be done with public education but we need strong enforcement and compliance rules and the personnel to implement these. This includes interactions with landowners and ensuring that they don’t trespass or attempt to use federal public land to enhance themselves economically or personally. Development has closed in on the ABRs. The Corps must plan for more intense pressures from development and its environmental impacts on the ABRs. Boundary marking and enforcement is very important for the MP to address.

There is a need to protect and restore more native coastal prairie in the ABRs. Buffers are needed between areas to ensure that environmentally sensitive areas don’t have spillover effects from recreation areas.

ABRs is one of the largest and last public land sites where prairie restoration can be implemented and practiced. There needs to be more prairie dedicated to sensitive areas and protected from multiple uses that reduce prairie ecosystem benefits.

The Corps should recruit and train citizens so they can assist with the protection of terrestrial and aquatic ecosystems in ABRs. The Corps should aggressively protect terrestrial and aquatic ecosystems and consult and communicate with the public and relevant agencies about these efforts.

4) Water instream flows are paramount to the health of the ABRs. These flows help maintain the bottomland hardwood forested wetlands and riparian woodland ecosystems and the floodplains that they contain.

5) All lands in the MP should be given a “Mitigation” label so that mitigation can occur on them, either directly or indirectly, due to environmental impacts they will receive from human sources.

6) Any recreation allowed in the MP should be low impact and compatible with the protection of ecosystems and management (light-handed management) of natural ecological systems and processes. The Sierra Club doesn’t support the use of motorized vehicles, except on existing roads. No public recreational off-road vehicle use should be allowed.

7) Mountain bike use should occur on a separate system of trails from hiking/walking/running trails because the speed and experiences are different for these two trail users. There are matters of safety, compatibility, and user conflict between these two users that need to be addressed and reinforced by the MP.

8) Terrestrial trails must be compatible with the ecosystems where they are found. Since the ABRs consist primarily of riparian and aquatic ecosystems, flooded reservoirs, and wet prairie ecosystems, terrestrial trails should be limited to areas that can withstand these wet conditions.

Operation, maintenance, repair, and rehabilitation of terrestrial trails is difficult in such wet ecosystems without permanent soil erosion, compaction, rutting, puddling, sedimentation, and other problems. Additional rainfall due to climate change will make the use of trails more difficult.

9) The Sierra Club, in general, doesn’t support commercial concessions and quasi-public development of any of ABRs in the MP. Making money shouldn’t be the reason that any activity is on public lands in the ABRs. Low Density Recreation should be emphasized because it’s cheaper to construct, maintain, can be lower in impact, and more compatible with other management of the ABRs.

10) The Sierra Club recommends that certain areas should be designated as Fish and Wildlife Sanctuaries with restrictions so that fish and wildlife species

have places where they can rest, migrate, feed, nest, and spawn. Expansion of and the restoration and maintenance of native prairies is an important element that should be addressed in the MP.

11) The Sierra Club opposes maximizing the use of limited public lands. This leads to land degradation on a landscape scale and overcrowding and will be detrimental to the enjoyment of solitude, natural sounds, natural dark, and other important public land features and values including the spiritual renewal that natural lands provide and a low noise environment. The Corps should include the protection of solitude, quiet, natural sounds, natural dark, and spiritual renewal in the MP.

The Corps should encourage people of all ages and abilities to experience the outdoors; educate the public about the importance of environmental protection; expand outreach to increase awareness and participation in the conservation of natural and cultural resources; and increase citizen awareness of the value of urban ecosystems. Face-to-face meetings should be emphasized because of the importance they have in providing social meaning for environmental protection.

12) The Sierra Club doesn't support logging forests under "Vegetation Management", "Wildlife Management", or any other land classification. It's one thing to cut down Chinese Tallow or other NNIPAS. But logging other trees isn't justified in the ABRs. There is no need for it. The Sierra Club urges the Corps not to allow logging of forests in the MP. Prescribed burning should be used to control woody plants.

13) The Sierra Club agrees that utility corridors should be used as much as possible to reduce fragmentation of the ABRs. The Corps should discuss mineral rights and the ABRs and how their management fits in with management of other uses in the MP. Utility corridors could be places where native prairies can be restored.

14) The Sierra Club supports cultural resources protection and interpretation in the MP.

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

[redacted]
Conservation Committee
Houston Regional Group of the Sierra Club
4300 Dunlavy St., Apt. 3138

Houston, Texas 77006
[redacted]
[redacted]

HOUSTON WILDERNESS
It's Our Nature

September 18, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Houston, TX 77077

Sent by email: [redacted]

RE: Houston Wilderness (HW) Comments to USACE Master Plan Update for Addicks & Barker Reservoirs

Dear [redacted]:

On behalf of the Board of Directors of Houston Wilderness, we provide the below comments to USACE Master Plan Update for Addicks & Barker Reservoirs. Houston Wilderness (HW) is an environmental policy non-profit organization that works with a broad-based alliance of business, environmental and government interests to protect and promote the 10 diverse ecoregions of the multiple counties around Houston, Galveston Bay, and the Gulf of Mexico, including coastal prairies, forests, wetlands, and waterways. HW facilitates regional programs to implement/install nature-based infrastructure on private and public lands with targeted native tree plantings, and installation of native grass bioswales and the newly created Southeast Texas Native Seed Mix to substantially improve ecosystem services related to reducing soil erosion, mitigating local air and water pollution and surface runoff, enhancing soil carbon and wildlife habitat, and improving local public health and community well-being.

Many difficult and at times devastating lessons were learned from the damage caused by Hurricane Harvey, and the years of substantial erosion and ecological deterioration caused some damage that could have been prevented by more diligent restorative work inside the reservoirs. The new USACE master plan's long-term goals, management objectives, and land classifications should reflect these needed changed conditions and lessons learned. Houston Wilderness recommends that the updated master plan include as a goal consistent emphasis on innovative strategies that advance the primary authorized purpose of the reservoirs: Flood Damage Reduction. The updated master plan also should include a goal to allow these 26,000 acres of publicly owned land to be enhanced, improved and managed as a recreational and natural resource for the entire region. We believe that increased ecological restoration (through nature-based infrastructure) of both reservoirs will provide substantial benefit and can be combined with needed dredging while avoiding construction of additional man-made (gray infrastructure) structures. We also encourage a measure in the master plan to 1) create a collaborative forum of land managers to promote strategic restoration opportunities, and 2) provide a process to collaborate with local and regional environmental restoration groups that have the expertise to assist with implementation of nature-based infrastructure with multiple benefits for Addicks and Barker Reservoirs. USACE also should consider working closely with these and other entities that have experience and success in innovative approaches that provide multiple benefits to achieve the above objectives and that USACE identify ways to accept donated or financial resources to assist with these efforts. While limited agency resources may impact the ability to increase reservoirs' management, using current resources to more deliberately direct and help prioritize/inform efforts would be an effective measure to include in the master plan for restorative efforts. We support using a watershed approach and managing sediment as a resource in the reservoirs and along Buffalo Bayou – encouraging inclusion of more forest management and agricultural practices. Multiple studies show that the planting

of native vegetation species reduces runoff by about 50% and erosion by 90% in forested areas.

Regarding land classifications, USACE should continue to classify certain land within the reservoirs as Environmentally Sensitive, with these areas generally being found along riparian corridors. However, the Corps also should study and identify any new environmentally sensitive areas, e.g., areas with prairie dawn, areas that harbor wildlife species of concern, etc. Given that the reservoirs were originally part of the historic Katy Prairie, care should be taken to restore areas back to native prairie where possible. We also support continued partnerships with other government agencies to offer High Density Recreation in certain areas of the reservoirs. Furthermore, Houston Wilderness supports continued inclusion in the master plan of these land classification areas in generally their current form, but we also acknowledge that future changes to those boundaries could be advisable based on sound science and benefits to our community made possible by innovative new strategies.

We also support continued protection of the land and improvements directly tied to Project Operations. In this regard, sediment management planning can include beneficial use options that utilize dredged material for a productive purpose such as habitat restoration/enhancement, construction and industrial use, etc. Such a measure would view dredged material as a valuable and manageable resource. We support the Corps looking for opportunities to use sediments beneficially in the system, either though maintaining it in the system for ecosystem purposes, or other uses - welcoming opportunities for beneficial use from willing and interested partners for any justified actions involving dredging.

Given changing conditions in and around the reservoirs and along Buffalo Bayou, Houston Wilderness is requesting updates to the Multiple Resource Management Lands classification (MRM). USACE policy allows MRM areas to be used for low density recreation, wildlife management, vegetation management, and future recreation areas. Hurricane Harvey taught us that we need to develop new flood damage reduction strategies that can provide multiple benefits. In the case of the reservoirs' MRM areas, activities that "do not interfere with the authorized purpose of Flood Damage Reduction" but directly support that authorized purpose should be prioritized. This should include terrain modification to increase the reservoirs' storm water storage capacity at a small scale under Section 219 and a larger scale if proven feasible to maximize benefits to the community and the environment.

Additional low impact recreation (such as high-quality trails) and mitigation, which are two land uses the current master plan does not appear to provided for in MRM areas, which also should be authorized in advance and encouraged. Other than allowing access to MRM areas for low density recreational use, Houston Wilderness does not consider additional High-Density Recreation to be appropriate in MRM areas.

USACE cannot endorse any specific approach that emerges from these master plan changes. However, to the extent possible, we are hopeful that the master plan authorizes innovative strategies that use terrain modification to provide multiple benefits for our region. These benefits include reintroduction of native habitats, wildlife and vegetation; regionally significant low-density/nature-based recreation; and additional Flood Damage Reduction. For example, much of the reservoirs' land was once prairie, but now after many

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decades managed as reservoirs, much of the land has transformed into dense forests with many undesirable, invasive species. Removal of these non-native invasive species is critical, as discussed above, and prairie and native tree restoration can take place throughout the reservoirs, with assistance from a variety of entities as also noted above.

The Master Plan's MRM land classification should allow the terrain of many of these areas to be modified and managed to increase flood control capacity, while also increasing the area's biodiversity, wetland value and ecological value as native prairie and habitat for wildlife and waterfowl. Some of these same areas could also be opened for more access to low-density, nature-based recreation like hiking, wildlife/waterfowl viewing, and non-motorized boating. Terrain modification also could allow the Houston region to minimize the loss of wetlands, enhance the quality of the public's experience of recreational areas, and restore a broad range of ecosystems.

These benefits can be provided while also protecting significant archeological and historical features found in the reservoirs. In all cases, activities allowed within MRM areas must still accommodate threatened or endangered species that may be present outside of Environmentally Sensitive areas.

Thank you for inviting these comments. Feel free to contact us with any questions or additional information.

Sincerely,

[redacted]

[redacted]
HW President

[redacted]

[redacted]
HW Board member

HOUSTON STRONGER

September 16, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Houston, TX 77077

RE: Comments to USACE Master Plan Update for Addicks & Barker Reservoirs

Dear [redacted]:

Thank you for allowing citizens in the Houston region to comment on USACE's planned update to its 2009 Master Plan. Houston Stronger agrees with USACE that the current master plan is out of date. Because of continued growth, development and redevelopment in west Houston, and our community's evolving recreational preferences, environmental, cultural and recreational conditions have changed dramatically upstream and downstream of the reservoirs. We also have learned many lessons from the damage caused by Hurricane Harvey. The new master plan's long-term goals, management objectives, and land classifications should reflect these changed conditions and lessons learned. Houston Stronger recommends that the updated master plan should include as a goal consistent emphasis on innovative strategies that advance the primary authorized purpose of the reservoirs: Flood Damage Reduction. The updated master plan also should include a goal to allow these 26,000 acres of publicly owned land to be enhanced, improved and managed as a recreational and natural resource for the entire region.

With regard to land classifications, USACE should continue to classify certain land within the reservoirs as Environmentally Sensitive, with these areas generally being found along riparian corridors. However, the Corps also should study and identify any new environmentally sensitive areas, e.g., areas with prairie dawn, areas that harbor wildlife species of concern, etc. Given that the reservoirs were originally part of the historic Katy Prairie, care should be taken to restore areas back to native prairie where possible. We also support continued partnerships with other government agencies to offer High Density Recreation in certain areas of the reservoirs. Furthermore, Houston Stronger supports continued inclusion in the master plan of these land classification areas in generally their current form, but we also acknowledge that future changes to those boundaries could be advisable based on sound science and benefits to our community made possible by innovative new strategies. Of course, we also support continued protection of the land and improvements directly tied to Project Operations.

Given changing conditions, Houston Stronger is requesting updates to the Multiple Resource Management Lands classification (MRM). USACE policy allows MRM areas to be used for low density recreation, wildlife management, vegetation management, and future recreation areas. Hurricane Harvey taught us that we need to develop new flood damage reduction strategies that can provide multiple benefits. In the case of the reservoirs' MRM areas, activities that not only "do not interfere with the authorized purpose of Flood Damage Reduction" <u>but directly support that authorized purpose</u> should be prioritized. This should include terrain modification to increase the reservoirs' storm water storage capacity at a small scale under Section 219 and a larger scale if proven feasible to maximize benefits to the community and the environment. Additional low impact recreation (such as high-quality trails) and mitigation, which are two land uses the current master plan does not appear to provide for in its MRM areas, also should be authorized in advance and encouraged. Other than allowing access to MRM areas for low density recreational use, Houston Stronger does not consider additional High-Density Recreation to be appropriate in MRM areas.

USACE cannot endorse any specific approach that emerges from these master plan changes. However, to the extent possible, we are hopeful that the master plan authorizes innovative strategies that use terrain modification to provide multiple benefits for our region. These benefits include reintroduction of native habitats, wildlife

and vegetation; regionally significant low-density/nature-based recreation; and additional Flood Damage Reduction. For example, much of the reservoirs' land was once prairie, but now after many decades managed as reservoirs, much of the land has transformed into dense forests, with many undesirable, invasive species.

The Master Plan's MRM land classification should allow the terrain of many of these areas to be modified and managed to increase flood control capacity, while also increasing the area's biodiversity, wetland value and ecological value as native prairie and habitat for wildlife and waterfowl. Some of these same areas could also be opened for more access to low-density, nature-based recreation like hiking, wildlife/waterfowl viewing, and non-motorized boating. Terrain modification also could allow the Houston region to minimize the loss of wetlands, enhance the quality of the public's experience of recreational areas, and restore a broad range of ecosystems.

These benefits can be provided while also protecting significant archeological and historical features found in the reservoirs. In all cases, activities allowed within MRM areas must still accommodate threatened or endangered species that may be present outside of Environmentally Sensitive areas. USACE's partnership with the City of Houston's Cullen Park outside its existing High Density Recreation facilities in Addicks Reservoir also is a consideration.

In summary, the Master Plan Update should allow modifications to the reservoirs and land uses that further effective Flood Damage Reduction. The reservoirs' 26,000 acres also have incredible potential to mitigate our region's loss of ecological diversity, provide regionally significant wildlife habitat, and greatly enhance our community's access to low impact recreation, all while enhancing the primary purpose of Flood Damage Reduction. To accomplish these goals, USACE should collaborate even more with other groups that have the expertise to fully realize the potential multiple benefits of Addicks and Barker Reservoirs. USACE also should consider working closely with entities that have experience and success in innovative approaches that provide multiple benefits to achieve the above objectives and that USACE identify ways to accept donated or financial resources to assist with these efforts.

Thank you for inviting these comments. Houston Stronger, a 501 (c) (4) not-for-profit coalition of 34 organizations, advocates for federal, state and local funding to support flood resiliency programs and projects throughout the Greater Houston 8-county region. We are dedicated to working with elected and agency officials toward implementing comprehensive flood and storm resiliency improvements, which we believe can be built to also provide recreational amenities, and which will safeguard our citizens and property. Our members and expert advisors stand ready to discuss these comments with USACE as your team prepares its update to the 2009 Master Plan.

Sincerely,

[redacted]

[redacted]

Chair

[redacted]

Executive Director

[redacted]

City of Katy
OFFICE OF THE MAYOR

[redacted]

August 27, 2024

U. S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Suite 101
Houston, Texas 77077

First Class Mail and Via E-Mail: [redacted]

Re: Addicks and Barker Master Plan

Dear [redacted]

The City of Katy's comments about the future land and recreational management for the Addicks and Baker Master Plan are as follows:

Flood Risk Management and Control

We recommend that both reservoirs continue to be utilized for flood risk management and control. This will ensure effective drainage downstream, mitigating the risk of flooding for surrounding communities.

Recreational and Wildlife Benefits

Additionally, the reservoirs should maintain their current provision of recreational opportunities and their role as limited habitats for local wildlife.

Buffalo Bayou Tributary Integrity

It is crucial that the size and flow of the Buffalo Bayou tributary remain unchanged and in its natural state to preserve the current environmental balance and protect the broader ecosystem.

Barker Reservoir Volume Retention

Finally, we propose that the Barker reservoir retains proper volume levels to sustain its ongoing functionality and operational effectiveness.

Thank you for the opportunity to provide the City of Katy's comments on the Addicks and Barker Master Plan.

Sincerely,

[redacted]

Mayor of the City of Katy

WHT/kjs

APPENDIX C – WILDLIFE DOCUMENTS

TRUST RESOURCES REPORT – USFWS

OFFICAL SPECIES LIST – USFWS

LIST OF SGCN SPECIES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
Phone: (281) 286-8282 Fax: (281) 488-5882

In Reply Refer To: 07/28/2025 18:16:14 UTC
Project Code: 2025-0127533
Project Name: Addick's and Barker Reservoir 2025 Master Plan

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Corpus Christi, Fort Worth, and Alamo, Texas, have combined administratively to form the Texas Coastal Ecological Services Field Office. All project related correspondence should be sent to the field office address listed below responsible for the county in which your project occurs:

Project Leader; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058
Angelina, *Austin*, *Brazoria*, *Brazos*, *Chambers, Colorado, Fayette, Fort Bend, Freestone, Galveston, Grimes, Hardin, Harris, Houston, Jasper, Jefferson, Leon, Liberty, Limestone, Madison, Matagorda, Montgomery, Newton, Orange, Polk, Robertson, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, and Wharton.*

Assistant Field Supervisor, U.S. Fish and Wildlife Service; 4444 Corona Drive, Ste 215; Corpus Christi, Texas 78411
Aransas, Atascosa, Bee, Brooks, Calhoun, De Witt, Dimmit, Duval, Frio, Goliad, Gonzales, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, La Salle, Lavaca, Live Oak, Maverick, McMullen, Nueces, Refugio, San Patricio, Victoria, and Wilson.

U.S. Fish and Wildlife Service; Santa Ana National Wildlife Refuge; Attn: Texas Ecological Services Sub-Office; 3325 Green Jay Road, Alamo, Texas 78516
Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata.

For questions or coordination for projects occurring in counties not listed above, please contact arles@fws.gov.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your

proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/media/endangered-species-consultation-handbook.

Non-Federal entities may consult under Sections 9 and 10 of the Act. Section 9 and Federal regulations prohibit the take of endangered and threatened species, respectively, without special exemption. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. “Harm” is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. “Harass” is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of

injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Should the proposed project have the potential to take listed species, the Service recommends that the applicant develop a Habitat Conservation Plan and obtain a section 10(a)(1)(B) permit. The Habitat Conservation Planning Handbook is available at: https://www.fws.gov/library/collections/habitat-conservation-planning-handbook.

Migratory Birds:
In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts visit: https://www.fws.gov/program/migratory-birds.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable National Environmental Policy Act (NEPA) documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Texas Coastal & Central Plains Esfo
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
(281) 286-8282

PROJECT SUMMARY

Project Code: 2025-0127533
Project Name: Addick's and Barker Reservoir 2025 Master Plan
Project Type: Management Plans Land Management/Restoration
Project Description: Addicks and Barker reservoirs, west of Houston TX. This is a master plan revision, which will re-zone USACE owned lands at Addicks and Barker Reservoir. No construction or ground-disturbing activities are part of the Proposed Action, as the Master Plan is a conceptual land management document.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.7443992,-95.68464997278828,14z



Counties: Fort Bend and Harris counties, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: ▪ Wind related projects within migratory route. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: ▪ Wind related projects within migratory route. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

REPTILES

NAME	STATUS
Alligator Snapping Turtle *Macrochelys temminckii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Texas Prairie Dawn-flower *Hymenoxys texana*	Endangered

NAME STATUS

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6471

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Justin Tirpak
Address: 2000 Fort Point Road
City: Galveston
State: TX
Zip: 77550
Email justin.m.tirpak@usace.army.mil
Phone: 5012769184

APPENDIX D – PERTINENT LAWS

- Antiquities Act of 1906, Public Law 59-209, 34 Stat. 225, 54 U.S.C. Sections 320301-320303: The first Federal law established to protect what are now known as "cultural resources" on public lands. It provides a permit procedure for investigating "antiquities" and consists of two parts: An act for the Preservation of American Antiquities, and Uniform Rules and Regulations.
- Historic Sites Act of 1935, Public Law 74-292, 49 Stat. 666, 16 U.S.C. Sections 461-467: Declares it to be a national policy to preserve for (in contrast to protecting from) the public historic (including prehistoric) sites, buildings, and objects of national significance. This act provides both authorization and a directive for the Secretary of the Interior, through the National Park Service, to assume a position of national leadership in the area of protecting, recovering, and interpreting national archeological historic resources. It also establishes an "Advisory Board on National Parks; Historic Sites, Buildings, and Monuments, a committee of eleven experts appointed by the Secretary to recommend policies to the Department of the Interior".
- Flood Control Act of 1938, Public Law 75-761: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. Sections 668-668d: This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or any manner, any bald eagle [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The Act defines “take” as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.
- Flood Control Act of 1944, Public Law 78-534: Section 4 of the act as last amended in 1962 by Section 207 of Public Law 87-874 authorizes USACE to construct, maintain, and operate public parks and recreational facilities in reservoir areas and to grant leases and licenses for lands, including facilities, preferably to Federal, State or local governmental agencies.
- River and Harbor Act of 1946, Public Law 79-525: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.
- Flood Control Act of 1954, Public Law 83-780: This act authorizes the construction, maintenance, and operation of public parks and recreational facilities in reservoir areas under the control of the Department of the Army and authorizes the Secretary of the Army to grant leases of lands in reservoir areas deemed to be in the public interest.
- Fish and Wildlife Coordination Act, Public Law 85-624: This act, as amended, sets down the general policy that fish and wildlife conservation shall receive equal consideration with other project purposes and be coordinated with other features of water resource development programs. Opportunities for improving fish and wildlife

resources and adverse effects on these resources shall be examined along with other purposes which might be served by water resources development.

- Public Law 86-717: This act provides for the protection of forest and other vegetative cover for reservoir areas under this jurisdiction of the Secretary of the Army and the Chief of Engineers.

- River and Harbor Act of 1962, Public Law 87-874: This act authorizes the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes.

- Land and Water Conservation Fund Act of 1965, Public Law 88-578: This act established a fund from which U.S. Congress can make appropriations for outdoor recreation. This law makes entrance and user fees at reservoirs possible by deleting the words "without charge" from Section 4 of the 1944 Flood Control Act, as amended.

- Public Law 88-29: Authorized the Secretary of the Interior to inventory and classify outdoor recreation needs and resources and to prepare a comprehensive outdoor recreation plan taking into consideration the plans of the various Federal agencies, State, and other political subdivisions. It also states that the federal agencies undertaking recreational activities shall consult with the Secretary of the Interior concerning these activities and shall carry out such responsibilities in general conformance with the nationwide plan.

- Federal Water Project Recreation Act, Public Law 89-72: This act requires that not less than one-half the separable costs of developing recreational facilities and all operation and maintenance costs at Federal reservoir projects shall be borne by a non-Federal public body. A HQUSACE/OMB implementation policy made these provisions applicable to projects completed prior to 1965.

- Water Resources Planning Act, Public Law 89-80: This act established the Water Resources Council and gives it the responsibility to encourage the development, conservation, and use of the Nation's water and related land resources on a coordinated and comprehensive basis.

- Solid Waste Disposal Act, as amended, Public Law 89-272, 42 U.S.C. Sections 6901 et seq.: This act authorized a research and development program with respect to solid-waste disposal. It proposes (1) to initiate and accelerate a national research and development program for new and improved methods of proper and economic solid-waste disposal, including studies directed toward the conservation of natural resources by reducing the amount of waste and unsalvageable materials and by recovery and utilization of potential resources in solid waste; and (2) to provide technical and financial assistance to State and local governments and interstate agencies in the planning, development, and conduct of solid-waste disposal programs.

- National Historic Preservation Act of 1966, Public Law 89-665, 54 U.S.C. Sections 300101 et seq.: This act provides for: (1) an expanded National Register of significant sites and objects; (2) matching grants to states undertaking historic and archeological resource inventories; and (3) a program of grants-in aid to the National Trust for Historic Preservation; and (4) the establishment of an Advisory Council on Historic Preservation. Section 106 requires that the President's Advisory Council on Historic Preservation have an opportunity to comment on any undertaking which adversely affects properties listed, nominated, or considered important enough to be included on the National Register of Historic Places.
- Flood Control Act of 1968, Section 210, Public Law 90-483: Restricted collection of entrance fee at USACE lakes and reservoirs to users of highly developed facilities requiring continuous presence of personnel.
- National Environmental Policy Act of 1969 (NEPA), Public Law 91-190, 42 U.S.C. Sections 4321 et seq.: NEPA declared it a national policy to encourage productive and enjoyable harmony between man and his environment, and for other purposes. Specifically, it declared a "continuing policy of the Federal Government... to use all practicable means and measures...to foster and promote the general welfare, to create conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." Section 102 authorized and directed that, to the fullest extent possible, the policies, regulations and public law of the United States shall be interpreted and administered in accordance with the policies of the Act. It is Section 102 that requires consideration of environmental impacts associated with Federal actions. Section 101 of NEPA requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony.

  Specifically, Section 101 of NEPA declares:

  - Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
  - Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings
  - Attain the widest range of beneficial uses of the environment without degradation risk to health or safety or other undesirable and unintended consequences
  - Preserve important historic, cultural, and natural aspects of our national heritage and maintain wherever possible an environment which supports diversity and variety of individual choice
  - Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
  - Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources
- River and Harbor Act of 1970 and Flood Control Act of 1970, Public Law 91-611: Establishes the requirement for evaluating the economic, social, and environmental impacts of projects.

- Public Law 92-347: This act revises Public Law 88-578, the Land and Water Conservation Fund Act of 1965, to require Federal agencies to collect special recreation user fees for the use of specialized sites developed at Federal expense and to prohibit the USACE from collecting entrance fees to projects.
- Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500: The Federal Water Pollution Control Act of 1948 (PL 845, 80th U.S. Congress), as amended in 1961, 1966, 1970, 1972, 1977, and 1987, established the basic tenet of uniform State standards for water quality. Public Law 92-500 strongly affirms the Federal interest in this area. "The objective of this act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters."
- Federal Environmental Pesticide Control Act of 1972, Public Law 92-516, 86 Stat. 973, 7 U.S.C. Sections 136 et seq.: This act completely revises the Federal Insecticide, Fungicide and Rodenticide Act. It provides for complete regulation of pesticides to include regulation, restrictions on use, actions within a single State, and strengthened enforcement.
- Public Law 93-81: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to require each Federal agency to collect special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense.
- Endangered Species Act of 1973, Public Law 93-205, 16 U.S.C. Sections 1531 et seq.: This law repeals the Endangered Species Conservation Act of 1969. It also directs all Federal departments/agencies to carry out programs to conserve endangered and threatened species of fish, wildlife, and plants and to preserve the habitat of these species in consultation with the Secretary of the Interior. This Act establishes a procedure for coordination, assessment, and consultation.
- Water Resources Development Act of 1974, Public Law 93-251: Section 107 of this law establishes a broad Federal policy which makes it possible to participate with local governmental entities in the costs of sewage treatment plan installations.
- Archeological and Historic Preservation Act of 1974, Public Law 93-291: The Secretary of the Interior shall coordinate all Federal survey and recovery activities authorized under this expansion of the 1960 act. The Federal Construction agency may transfer up to one percent of project funds to the Secretary with such transferred funds considered non-reimbursable project costs. This amends the Reserve Salvage Act of 1960 (PL-86-523).
- Public Law 93-303: This law amends Section 4 of the Land and Water Conservation Fund Act of 1965, as amended, to establish less restricted criteria under which Federal agencies may charge fees for the use of campgrounds developed and operated at Federal areas under their control.
- Safe Drinking Water Act, Public Law 93-523: The act assures that water supply systems serving the public meet minimum national standards for protection of public health. The act (1) authorizes the Environmental Protection Agency to establish Federal standards for protection from all harmful contaminants, which standards

would be applicable to all public water systems, and (2) establishes a joint Federal-State system for assuring compliance with these standards and for protecting underground sources of drinking water.

- Public Law 94-422: Expands the role of the Advisory Council on Historic Preservation. Section 201 amends Section 106 of the National Historical Preservation Act of 1966 to say that the Council can comment on activities which will have an adverse effect on sites either included in or eligible for inclusion in the National Register of Historic Places.
- Clean Water Act of 1977, as amended, Public Law 95-217: This Act amends the Federal Water Pollution Control Act Amendments of 1972 and extends the appropriations authorization. The Clean Water Act is a comprehensive Federal water pollution control program that has as its primary goal the reduction and control of the discharge of pollutants into the nation's navigable waters. The Clean Water Act of 1977 has been amended by the Water Quality Act of 1987, Public Law 100-4.
- American Indian Religious Freedom Act, Public Law 95-341: The Act protects the rights of Native Americans to exercise their traditional religions by ensuring access to sites, use and possession of sacred objections, and the freedom to worship through ceremonials and traditional rites.
- Endangered Species Act Amendments of 1978, Public Law 95-632: This law amends the Endangered Species Act of 1973. Section 7 directs agencies to conduct a biological assessment to identify threatened or endangered species that may be present in the area of any proposed project. This assessment is conducted as part of a Federal agency's compliance with the requirements of Section 102 of NEPA.
- Archeological Resources Protection Act of 1979, Public Law 96-95: This Act protects archeological resources and sites that are on public and tribal lands and that fosters increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals. It also establishes requirements for issuance of permits by the Federal land managers to excavate or remove any archeological resource located on public or Indian lands.
- Supplemental Appropriations Act, 1983, Public Law 98-63: This Act authorized the USACE Volunteer Program. The United States Army Chief of Engineers may accept the services of volunteers and provide for their incidental expenses to carry out any activity of the USACE, except policymaking or law or regulatory enforcement.
- Water Resources Development Act of 1986, Public Law 99-662: Provides for the conservation and development of water and related resources and the improvement and rehabilitation of the Nation's water resources infrastructure.
- North American Wetland Conservation Act of 1989, Public Law 101-233: This act directs the conservation of North American wetland ecosystems and requires agencies to manage their lands for wetland/waterfowl purposes to the extent consistent with missions.
- Americans with Disabilities Act of 1990 (ADA), PL101-336, as amended by the ADA Amendments Act of 2008 (PL110-325): This law prohibits discrimination based on

disabilities in, among others, the area of public accommodations and requires reasonable accommodations for persons with disabilities.

- Native American Graves Protection and Repatriation Act, Public Law 101-601: This act requires Federal agencies to return Native American human remains and cultural items, including funerary objects and sacred objects, to their respective peoples.
- Water Resources Development Act (WRDA) of 1992 PL 102-580: This act authorizes the USACE to accept contributions of funds, materials and services from non-Federal public and private entities to be used for managing recreational sites and facilities and natural resources.
- Omnibus Reconciliation Act of 1993, Public Law 103-66: Day use fees - authorizes the USACE to collect fees for the use of developed recreational sites and facilities, including campsites, swimming beaches and boat ramps.
- WRDA 1996, PL 104-303: authorizes recreation and fish and wildlife mitigation as purposes of a project, to the extent that the additional purposes do not adversely affect flood control, power generation, or other authorized purposes of a project.
- Omnibus Parks and Public Lands Management Act of 1996, Public Law 104-333: This act created an advisory commission to review the current and anticipated demand for recreational opportunities at lakes or reservoirs managed by the Federal Government and to develop alternatives to enhance such opportunities for such use by the public.
- Neo-tropical Migratory Bird Conservation Act of 2000, Public Law106-147: This act promotes the conservation of habitat for neo-tropical migratory birds.

APPENDIX E – PUBLIC COMMENT

INITIAL PUBLIC SCOPING (July 10, 2024 – September 18, 2024)

COMMENT	RESPONSE
GENERAL PUBLIC[1]	
The purpose of this email is to comment on a community meeting hosted by USACE on August 18, 2024, to discuss the Addicks & Barker dams. I attended hopefully to hear that the Corps has a plan to prevent flooding. The meeting was a disappointment. The Corps does not have a plan to prevent flooding. A poster was set up on a tripod depicting both Addicks and Barker with environmentally sensitive areas and recreational areas delineated in blue, red, and black. About a dozen Army men and women were present. The Corps patiently explained to 2-3 dozen citizens present that the USACE Master Plan did not include 1) flooding or 2) excavation. Flooding and excavation will be dealt with in a Water Plan (to be presented in the future at an undetermined date). Why is the corps calling this a Master Plan? When and if a Water Plan is presented, I have a suspicion that the plan will be to widen Buffalo Bayou and release all the water into Buffalo Bayou in a full surge release as was done in Hurricane Harvey. The Corps members with whom I was talking did not deny it. I told them that widening Buffalo Bayou would create a storm surge just as the MR GO channel created a storm surge when Hurricane Katrina overtopped the levees and flooded New Orleans. Mississippi River–Gulf Outlet Canal en.wikipedia.org wikipedia.png Also I said that Houston cannot control flooding because Houston does not have regulatory agencies. HCFCD & the Tx Water Board are not regulatory agencies. I asked if the Corps is a regulatory agency. (I think yes, but they all shook their heads no). They said Houston has no zoning. We cannot prevent anyone from building. I said the Corps has a duty and an obligation to protect the Petro/ chemical industries and the Port of Houston. Silence. I asked why when on a family vacation, we drove all over Florida in 2017 and we saw USACE signs everywhere announcing flood mitigation projects. Why no federal projects here in Houston? Silence. One reason why the operation of Addicks & Barker dams has been horribly mismanaged is because the District Commanders are rotated every 2-3 years. No District Commander is in charge for a sufficient period of time to undertake extensive replacements and repairs. Another reason why the operation of Addicks & Barker dams has been horribly mismanaged is because the District Commanders are obsessed with keeping the costs of operating the dams low.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
Thank you for the opportunity to comment on this master plan revision. The combined 26,000 acres contained in these reservoirs is a natural resource treasure in the midst of six million people in the greater Houston urban area. Home to incredible wildlife, including bobcats, coyotes, deer, beaver, river otters, bald eagles, osprey, wood stork, wood ducks, great blue heron, woodpeckers, kingfishers, barred owls, alligators, roseate spoonbills, many turtle species, many more bird species (both local and migratory), raccoons, rabbits, opossum, snakes, etc. Basically, any wildlife native to southeast Texas lives in these reservoirs. I offer the following comments to be considered as management features moving forward. 1. Please aggressively support state and local government efforts to remove feral hogs. These animals are doing great damage to the reservoirs and competing	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural

COMMENT	RESPONSE
with native species for food resources. Also, if there is any federal funding available, please pursue some of the new methods to remove or reduce the feral hog population. 2. Please support state and local government efforts to remove invasive McCartney's Rose shrubs, Chinese Tallow and trifoliate orange trees. 3. Please support state and local government efforts to preserve, maintain & improve natural surface trails in both reservoirs. These trails provide unmatched hiking, wildlife viewing and mountain bike opportunities in the Houston area. Basic maintenance (tree trimming and mowing) should be considered an acceptable activity on natural surface trails in all classes of land in the reservoirs, including environmentally sensitive areas. 4. Please consider annual or quarterly trash removal at driveways within the reservoirs where illegal dumping is currently occurring and prosecute violators. 5. Preserve wildlife and wildlife habitat. 6. Improve parking areas for access to trails and wetlands/lake areas. Two examples are: 1) the area west of Eldridge, just north of the Addicks Dam, and 2) the area just south of Patterson on the east side of Eldridge. These areas should be cleared in the master plan for Harris county or others to place gravel or pave these locations to provide all weather access to the trails and wetlands. 7. Please make all efforts to prevent motorized vehicle (4 wheeler & motorcycle) access by installing gates that allow hikers and bikers, but prevent all terrain vehicles and motorcycles. Also, please prosecute violators. 8. Allow hike & bike trail connections to the upstream ends of the dam roller compacted spillways since the spillways offer a good recreational and alternative transportation option for nearby residents and reservoir visitors alike. 9. Take all measures possible to prevent firearms prosecute violators. 10. Document & preserve the historic sites within the reservoirs 11. Consider terminating the military lease north of Buffalo Bayou & east of Barker Clodine which doesn't seem to be used for military purposes. 12. Install or support installing trash booms & trash removal equipment where waterways enter federal land, such as Buffalo Bayou, Mason Creek, Langham Creek & Bear Creek. There is literally tons of trash caught up in trees down across reservoir waterways and this trash removal system would not only provide a clean environment within the reservoirs, but would also prevent trash moving farther downstream, ultimately to the Gulf of Mexico. 13. Support state and local government efforts to establish native prairies and native plant species within the reservoirs.	and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
Please keep it wild. No more “development” which would destroy the natural wooded areas needed by wildlife.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project’s natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project’s natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
I live adjacent to the Barker Reservoir. The Corp of Engineers Shall change the Dam structures to only impound water to the Federal owned property boundary. The change of the overflows at the back of the dams so they do not flow on to unowned property will and should be the direction the project proceeds. The Project creep of the last 80 years has set the government up as the bad guys, I spoke to the land owners who the land was taken from to build these two Dams. The families are still not happy with the Corp. The Corps was and is the bad guys on the West side of Houston. It is time your organization took care of all the people not just a few downstream who have more political power. Start today doing the right thing, Change the Dams structures so they can not flood on land not owned by the government.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with

COMMENT	RESPONSE
It is the solution, it is a easy solution, cheap, just move the dirt and pour some spill way concrete.	Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
I wanted to provide feedback and input for the Barker & Addicks Dam. Can we please consider more biking trails in the dam area for future use, and also adjust the gates at roads so that bikers/hikers/walkers can easily access? Otherwise folks have to go under OR hop over which can lead to injuries. I would love to participate if at all possible in a committee if such one exists on how the dam area could be better use for public use.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources.
Dear Sirs, I have to say that I was surprised to see that USACE appears to have proposed nothing from the flooding of Hurricane Harvey in 2017, but instead is looking for public comment. Here are my public comments. Of the two flood control reservoirs, Addicks came the closest to failure in 2017, but I cannot say if Barker Reservoir was also a near miss. So my suggestions are to either make the reservoirs bigger and to significantly increase the drainage capacity out of the reservoirs to the Houston Ship channel as follows. Many of these ideas should be done together as there is no single fix it that will cure it all.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of

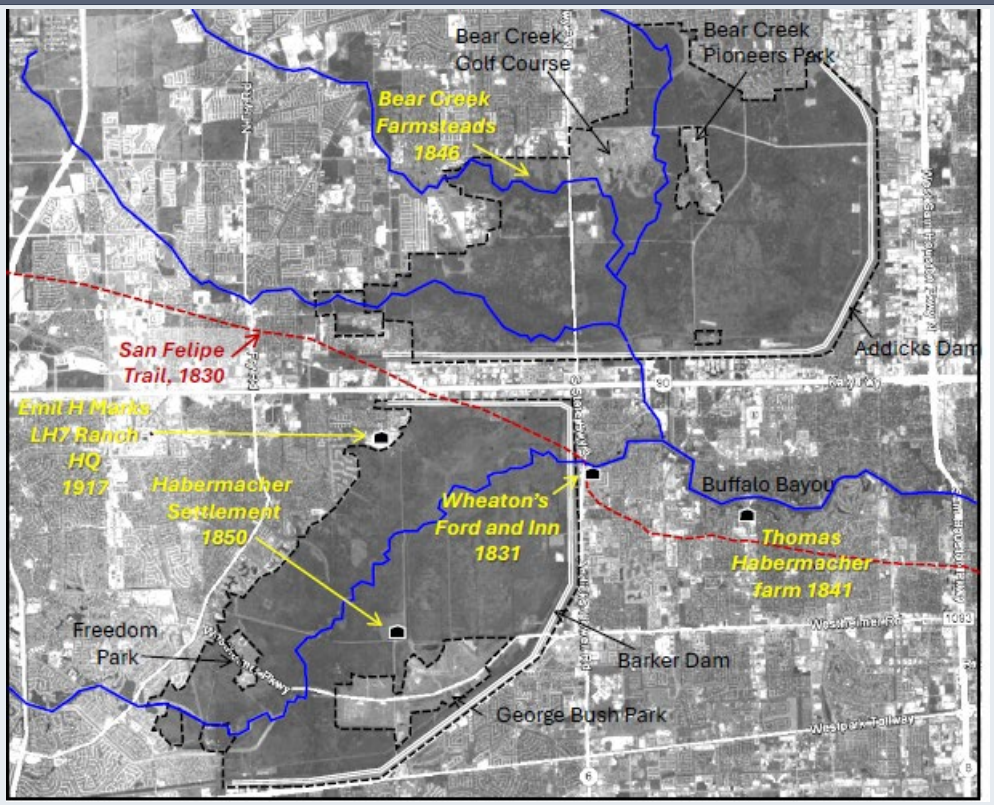
COMMENT	RESPONSE
1. Increase the thickness, height, and length of Addicks Reservoir Dam and strengthen with reinforced concrete at the deepest parts of the reservoir, including more flood gates and an expanded spillway. 2. Consider doing the same with Barker Reservoir, if needed. 3. Remove accumulated silt from the bottom of the reservoirs to restore storage capacity lost over the years. 4. Elevate Eldridge Parkway, Clay Road, and Highway 6 with drainage underneath. 5. If realistic, add one or more additional flood control reservoirs upstream of Addicks and perhaps Barker Reservoir. 6. Consider widening and deepening Turkey Creek to better handle waters that divert around the Addicks Dam. 7. State, County, and USACE would need to buy out residential and commercial properties in the upstream flood pools, especially if the impacted reservoir is expanded. 8. Deepen, widen, and debottleneck the reservoir spillways and bayous all the way to the Houston Ship Channel. Most, but not all of the impacted land is already public parkland. The parts that are private land would need to be bought out. 9. Consider building flood tunnels from Addicks and Barker to the Houston Ship Channel.	outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
David Mackintosh – Chief, Houston Project Office, The Corps of Engineers (COE) should operate the Addicks and Barker Reservoirs in a manner such that no rain or other sourced water shall ever encroach upon privately owned property upstream (i.e. west) of the Reservoirs. The COE should immediately open the dam gates to allow water to flow out of the reservoirs whenever water in the Reservoirs threatens to move from government owned property onto privately owned property, including homeowner property adjacent to and immediately west of the government owned Reservoir property. No flood waters should ever be allowed onto private property upstream from the Reservoirs. Thank you for the opportunity to comment.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.

COMMENT	RESPONSE
I have the following comments to the Addicks and Barker Master Plan Revisions, which I understand can be made during the period of August 19 to September 18, 2024. 1.) General Comment: Whatever revisions are made to the existing master plan shall be consistent with the primary purpose of the Addicks and Barker Reservoirs, which is "flood control". I am very much in favor of continuing some development and of maintaining existing facilities within the reservoir boundaries including sports playing fields (soccer, baseball, and similar), archery ranges, equine rehab facilities (especially for children & teenagers), public picnic areas (both covered and uncovered), walking/hiking/biking paths and trails, some animal/family zoo facilities, some memorials (such as for war veterans), and limited, relatively small covered pavilions for hosting special events such as for Memorial Day, Veterans Day, and local cultural events. With all such facilities, asphalt and concrete cover should be minimized and naturally absorbing soil should be maximized to the extent reasonable. The aforementioned amenities are valuable to the community and need to be maintained and enhanced, but, at the same time, they need to be coordinated with the core flood control mission of these reservoirs. The major flooding that occurred during the Tax Day, Memorial Day, and Hurricane Harvey flooding events over the last decade are obvious reminders of why that needs to be the case. The growing effects of climate change, which now seem clear (whatever the cause), only serve to highlight the increasing importance of flood control in the watershed of these reservoirs. 2.) There is quite an abundance and variety of wildlife within the reservoir boundaries. Adding some bird feeder areas would be meaningful. Perhaps, the Corps could occasionally invite a naturalist to give some guided tours to view flora & fauna within the reservoirs. 3.) Limited grazing is acceptable as long as such grazing is managed and doesn't work against the flood control mission. 4.) It will likely become increasingly important for the Corps to manage wildfire potential within the reservoir boundaries, as hot dry spells likely increase in the years ahead. This is important not only to the immediate neighbors surrounding the reservoirs but to the adjacent communities as well. 5.) The Corps should use native plants, grasses, and trees to replant any areas within the reservoirs that get devastated by flooding, fire, etc. I believe the Corps is already doing this where the public golf course used to be (i.e. the area just south of Clay Road and east of Highway 6), and so I'm encouraging them to continue doing so. By the way, I'm not against converting some area to golf course usage again, if a responsible leasee/operator can be found. 6.) I've heard comments of people wanting to add a larger pavilion for hosting cultural and entertainment events of some size (like a mini Cynthia Woods Pavilion in The Woodlands) somewhere within the reservoir boundaries, if contributing partners could be found in the corporate and/or governmental communities. Though the idea is appealing, it unfortunately does not appear consistent with the flood control mission and would probably never get the sponsorship needed to bring to fruition because of the high flooding potential for such a facility. I want to thank the Corps for updating the Addicks and Barker Master Plan and for soliciting comments from the community.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan. Outside of master planning we are currently working with HFD Wildland, TFS, and NPFTC to perform wildfire mitigation projects. I don't know the best wording to respond or where it might be listed in the master plan.

COMMENT	RESPONSE
Dear Galveston District, I'm sorry we weren't able to attend the open house on Monday, Aug. 19, presenting information about the revised Addicks and Barker Master Plan. I'm trying to write up a short item for our website with links to your presentation. However, I'm confused. The website says the revision of the master plan is necessary because the plan is out of date and no longer compliant with current regulations. But at the same time the Corps says there are no proposed changes to the plan? Could you please clarify? Thank you.	The Master Plan is currently in the Agency/Public Scoping Notification and Comment Period. At this point in the revision process there are no proposed changes The Corps is requesting written comments for recommended changes to the existing master plan. A Draft Master Plan with the proposed changes will be released to the public in the winter of 2026.
I would like to submit the following comments: 1. The plan should include provisions for good access to and maintenance of the areas surrounding cemeteries within the reservoir footprints. 2. Proactive invasive plant and animal control should be allowed and encouraged by private and nonprofit entities. It is not enough to simply address the transfer of invasive species by other activities within the reservoirs as the current plan states. The new plan needs to encourage a goal of 100% removal of invasive species including Chinese tallow tree, McCartney rose, Chinese ligustrum, deep rooted sedge, apple snail, placostama fish, and feral hogs. 3. The plan should encourage native habitat restoration, especially native riparian, wetland and tall-grass prairie habitats, within the reservoir footprint. Please also consider habitat restoration within the reservoirs as potential mitigation for other USACE Civil Works project impact	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in

COMMENT	RESPONSE
	Chapter 3 of the Master Plan.
Hello, I'm writing to give input to the Addicks and Barker Master Plan revision, as requested in your posting. My background is as a professional geologist and historian, but I'm also currently the Vice President of the Harris County Historical Society, and a past member of the Harris County Historical Commission. As a member of that commission, I authored and placed three illustrated panels in 2022 at the Barker Reservoir dam site that reflect on the history of the historical ford and trail there across Buffalo Bayou in frontier days. In 2015, I authored an extensive history of the west side of Houston, including the area of these reservoirs, entitled Pleasant Bend: Upper Buffalo and the San Felipe Trail in the Nineteenth Century. I am also a member of the Houston Archeological Society, and in 2021 authored another book entitled A Prehistory of Houston and Southeast Texas: Landscape and Culture, which contains a significant amount of information on Native American activities in and around the area of the Addicks and Barker reservoirs. I have given numerous talks on these subjects to various local historical, natural history, and archeological groups. My understanding is that you do not feel that any changes to the 2009 Master Plan for the reservoirs is warranted. I must respectfully disagree, as the sections on historical and cultural matters in that plan are either outdated or erroneous, or both. Although hardly mentioned in that report, the area of these reservoirs contains significant remnants of our region's history and prehistory that merit attention. I believe that citizens in our area would enjoy and benefit from potential actions to highlight this history. Some of these historical sites are mentioned below. 1. BARKER RESERVOIR. The 2009 report states that "the majority of the property on Barker Reservoir was left unoccupied and unimproved until the late 1870s." That statement is incorrect on several levels. Most significantly, in 1831 John and Elizabeth Wheaton received a grant of 4,605 acres along Buffalo Bayou that surrounded a ford on that Bayou located at the present Highway 6 bridge (Figures 1 and 2). Their land grant extended both west of that crossing (underneath present Barker Reservoir) and to the east. They built a frontier inn at the crossing, along the frontier San Felipe Trail. That was the first commercial road in Houston, and connected the early town with the colonial capital at San Felipe. It connected Houston to cotton grown by enslaved workers on the Brazos River plantations, and that trade built our city. When Emancipation came in 1865, it was along this old trail that newly emancipated African Americans trekked to Houston and places farther east. West of that old bayou ford, the old trail transected the northern part of Barker Reservoir. When the Barker Dam was constructed in the 1940s, work crews found the remnant ox wagon tracks of the old trail. The piece of the San Felipe Trail underneath northern Barker reservoir is the only	Noted. The revised Master Plan seeks to update the historical and cultural resources from the 2009 Master Plan.

COMMENT	RESPONSE
remaining segment of that trail left in its natural state in the Greater Houston area. It is a very significant cultural resource, unmentioned in the 2009 USACE Master Plan. Another significant Barker Reservoir cultural resource unmentioned in the Master Plan is the location of the former Habermacher Settlement in the southern part of the reservoir (Figure 1). The Habermacher family, immigrants from Alsace, France, began settling in the future Highway 6 area in 1841. A son Joseph Habermacher settled within the modern reservoir in 1851, beginning a “Habermacher Settlement” that by 1880 contained a post office, a church, a school, and a depot on the Texas Western Railway. The settlement folded by the early nineteenth century. Habermacher descendants were among those ranch people who were displaced by the building of the reservoirs, and that site should be marked. Just outside of Barker reservoir to the west was the headquarters of the LH7 ranch, most of the land of which was required by USACE for the Barker Reservoir. The old ranch buildings were destroyed by apartment developers in 2014, but underneath the reservoir just to the east lies the site of the original Houston rodeo grounds of the 1920s and 1930s, built by Emil Marks, who played a role in the survival of the longhorn cattle breed and founded the current Houston Rodeo’s Salt Grass Trail. That old rodeo site too should be marked. 2. ADDICKS RESERVOIR. The 2009 report mentioned the German farm families displaced by construction of the Addicks Reservoir, and that the earliest of these arrived in the 1850s. Actually, members of the Groschke, Striepe, Meyer and Brandt families were living on farms at what became the core of the Bear Creek Community at least as early as 1846. These families fled the beginnings of the 1848 war in Europe to settle here (Figure 1)	

COMMENT	RESPONSE
 Figure 1. Selected early historical sites of the Addicks-Barker reservoir area Their farms lasted a century but were required for the building of the reservoir. The buildings were destroyed in the 1940s, but the outlines of their fields are still easily visible in aerial photos of the area, south of Pine Forest Lane within the USACE property (Figure 3).	

COMMENT	RESPONSE
 Figure 3. Relict outlines of German farmsteads established in 1846 and razed in 1946. There are numerous archeological remains there of the building sites – foundations, wells and even a small family cemetery – that were studied by Bear Creek descendant Andrea Stahman Burden in a 2004 Texas A&M master's archeology thesis. The farms at minimum should be marked and their stories told. There are a number of photographs of these buildings that were taken before they were razed, but most of those records were destroyed during the 2017 Harvey flood at the USACE office on Highway 6. I made copies of most of them before that flood occurred, and many can be seen in the book Pleasant Bend (e.g., Figure 4).	

COMMENT	RESPONSE



Ca. 1854 pioneer dogtrot home of Frederick Brandt and Catherine Meier Suhr Brandt, prior to its demolition in 1946



The pioneer Brandt family, 1876



Outbuildings of the Brandt farm



Figure 4. Example photographs of one of the pioneer Beer Creek farmsteads, taken by USACE prior to demolition of the buildings in 1946

These properties along Pine Forest Lane comprise the original core and oldest parts of the Bear Creek Community. In about the 1980s, some land was set aside by USACE and Harris County for a “Bear Creek Pioneers Park” (Figure 1). Spearheaded by the late well-known newsman Ray Miller, new park roads were built and named for early pioneers, and there was a plan to rebuild some of the pioneer dwellings. After Ray Miller died in 2008 that plan was never completed, and the area is today a complex of sports fields and picnic pavilions. Regardless, the “Pioneer Park” area is not located on the original 1846 section of the community. The original 1846 plots, which were tidy farms at the time of USACE takeover, have been allowed to be overtaken by invasive trees and woody brush. Those farm sites remain a very significant cultural resource that is unmentioned in the 2009 USACE Master Plan, which states that ‘the historic resources primarily date between 1900 and 1930…the majority are related to early 20th century home sites.” In correction, many of the homes and outbuildings destroyed in the Pine Forest/1846 area dated back to the mid to late 19th century. The oldest known was the Frederick and Catherine Brandt home, built in 1854 (Figure 4).

3. NATIVE AMERICAN SITES AND DEGRADATION OF NATIVE PRAIRIE. Perhaps the most significant shortcomings of the 2009 MP are its cursory treatment of Native American/archeological sites within the reservoirs as well as the neglect of native prairie landscape. The report mentions only that “small lithic scatters” and ceramic sherds were found on some of the pimple mounds along the bayous. However, one of the earliest professional archeological excavations in the State of Texas was done at multiple sites in Addicks Reservoir in 1947 by the Smithsonian Institution,

COMMENT	RESPONSE
and the artifacts are housed at the Smithsonian's Bureau of American Ethnology in Washington DC. Artifacts included knives, drills, gravers, scrapers, and sandstone grinding tools, as well as parts of incised-pattern cooking and storage pots that include some of the earliest known types of pottery in North America, called Tchefuncte ware (Figure 5).	

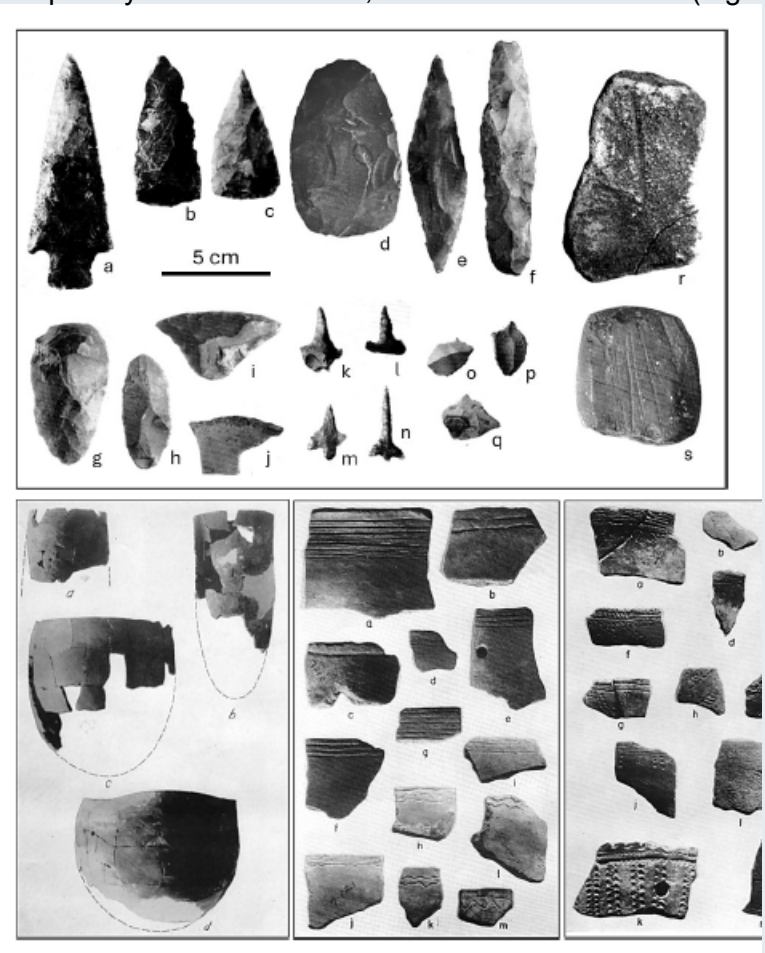


Figure 5. Upper image, knives, spear points, and other tools, and lower image, ceramic pots and sherds, excavated from the Addicks Basin area during a Smithsonian expedition led by Joe Ben Wheat. Courtesy of the Bureau of American Ethnology, Smithsonian Institution.

Those first excavated artifacts reveal nearly continual hunting and residential activity at sites along Langham Creek, South Mayde Creek and Buffalo Bayou stretching back from historical times to 13,000 years ago (Figure 6).

COMMENT	RESPONSE

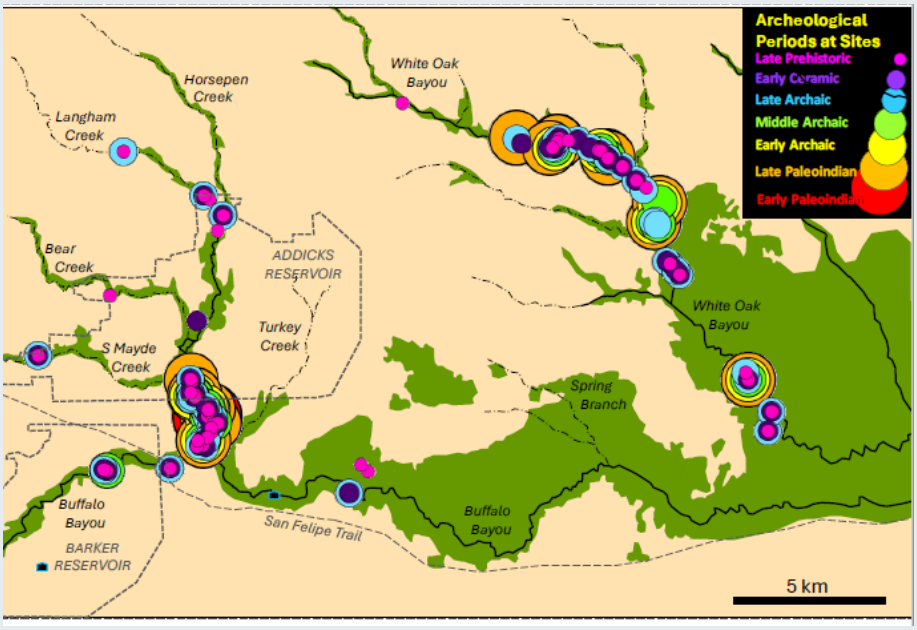


Figure 6. Excavated archeological sites of western Harris County, with ages (Early Paleoindian stage ca. 13,000 years to Later Prehistoric AD 1600). Addicks and Barker Reservoir outlines shown for reference.

Later excavations by the Houston Archeological Society found a very large group of similar archeological sites extending from the southern part of Addicks Reservoir into Terry Hershey Park south of I-10, and thence into Barker reservoir. Unknown at the time of the USACE 2009 report was the regional significance of these sites along the upper tributaries of Buffalo Bayou at the reservoirs. Research results discussed in A Prehistory of Houston and Southeast Texas show that Native Americans regularly used this confluence of tree-lined tributaries as an entrapment and kill zone for herds of bison that migrated annually into the native coastal prairies of our area. Hunters ran the bison into tree-lined cul-de-sacs where creeks branched off from Buffalo Bayou, and at those spots other hunters were waiting with atlatls and, much later, bows and arrows (Figure 7).

COMMENT	RESPONSE

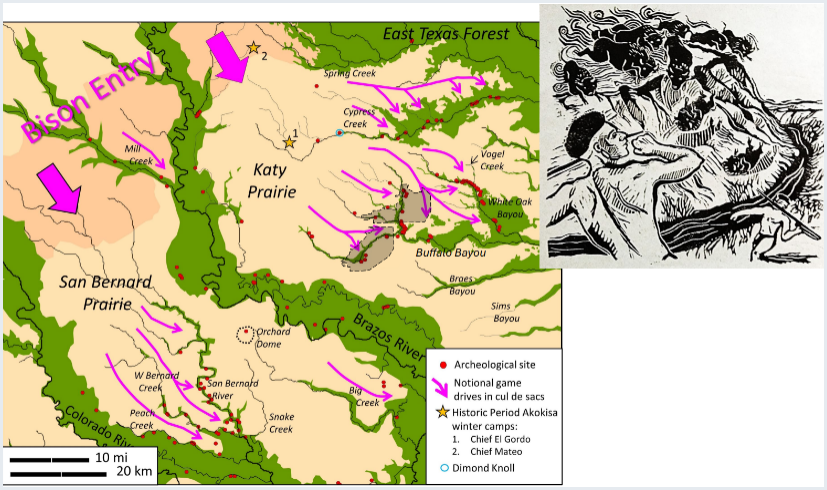
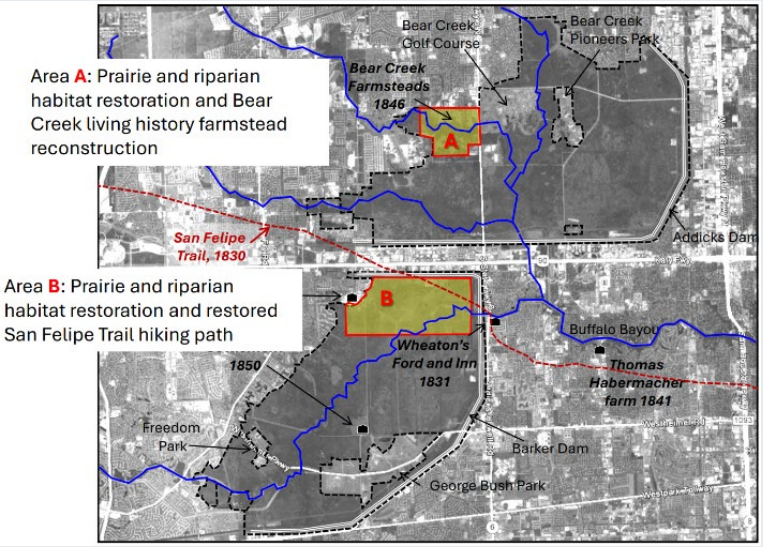


Figure 7. Interpreted bison migration entry and natural migration cul-de-sacs (pink arrows). The ends of these cul-de-sacs, where bison tumbled over creek banks, made ideal ambush points for early hunters. Red dots show archeological sites. Addicks and Barker reservoirs highlighted in grey shading.

Analysis of spear and dart points show that Native American hunting groups came from as far as central Texas, the southern Texas coast, and nearby east Texas to take part in the annual harvest. An eyewitness account of bison hunting in the reservoir general vicinity written by Frenchman Simars de Bellisle in 1720 noted that both local Akokisa and central Texas Tojal (Tonkawa) Native American hunters were active here that year, congruent with results taken from older archeological finds.

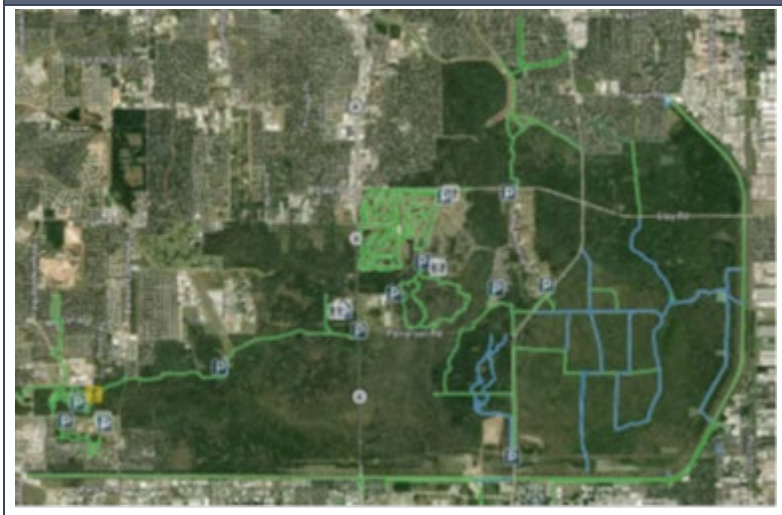
In the 1920s and 1930s, Houstonians would drive out to the Addicks Basin area to hunt for arrowheads in this rich array of archeological sites, which also included a significant burial mound. Most of these sites lying just outside of the reservoirs in Terry Hershey Park were destroyed by bayou straightening and other flood control operations in the 1940s and 1950s, but many sites lying within the reservoirs are relatively undisturbed (with others yet to be discovered). These are significant cultural resources that speak to 13,000 years of sustainable use of prairies by Native Americans in our area. Unfortunately, in the 80 years of stewardship of the reservoirs by USACE, these prairies have been allowed to be overrun with invasive trees and woody undergrowth, yielding a tangled, often impenetrable mass of woody material except where the County has kept sports fields and recreational areas open.

SUMMARY AND RECOMMENDATIONS. Houston is not a city known for preservation of very early cultural sites and landscapes, and yet, the Addicks and Barker reservoirs contain large areas with very significant historical cultural and natural resources. Although there has been much development of land for recreation – sports fields, dog parks, golf courses, and equestrian centers – there has been little attention paid in the past to historical and cultural resources, which are things sorely lacking in Houston relative to cities like San Antonio, New York, or Boston. The reservoirs contain perhaps the largest urban wilderness of any major city, the area of which dwarfs by many, many times over the size of Memorial Park. And yet, the number of visitors outside of the developed sports parks is relatively small. Most of the time, reservoir land is dry and open, and in my opinion the land is not nearly being used to its fullest for the

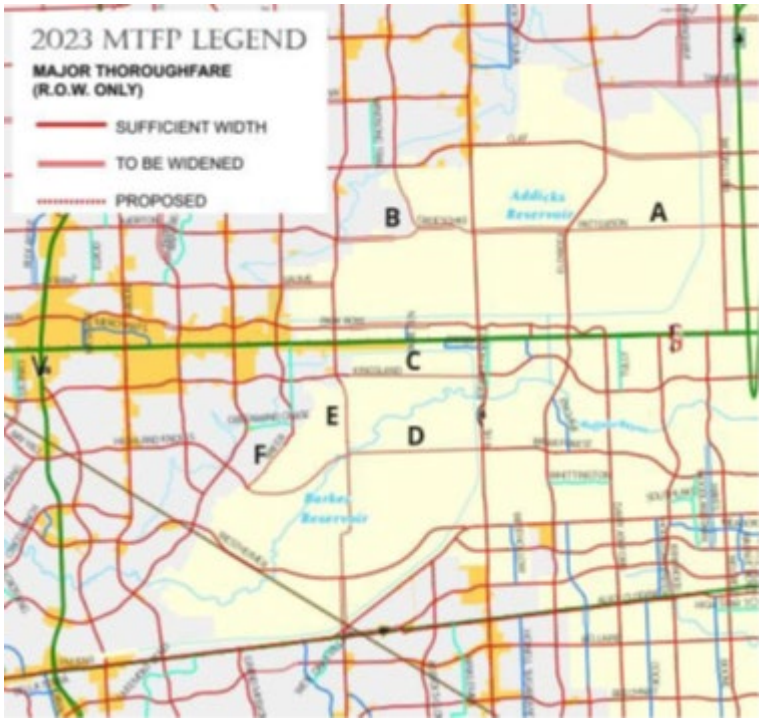
COMMENT	RESPONSE
surrounding millions of Greater Houston residents. I would recommend two projects in particular that would significantly enhance public use of the reservoirs and raise awareness of the area's rich history and landscape, while not detracting from the reservoirs' main function as flood protection. These two suggested areas are shown in Figure 8: 1. Area A is located south of Pine Forest Lane and immediately west of Highway 6, in Addicks Reservoir. It includes the area of the 1846 pioneer German farmsteads, which were carved out of native prairie and riparian forest. One or more of these farmsteads could be restored and a few farm buildings reconstructed for a living history farm landscape. Adjacent parts of the coastal prairie and the riparian habitat along Bear Creek should be restored to their original condition, yielding an intact pioneer-era landscape. This area is in the upper elevation of Addicks Reservoir, so flooding has only occurred occasionally over the years. Thus, the threat to buildings would be no more than that to the many other existing recreational buildings in the reservoirs. Two or three simple farm buildings and some fenced enclosures and orchards, like those shown in Figure 4, would be relatively simple and economic to reconstruct. Such a project would need to attract regional or national grant funding. With some vision and support from USACE, County, City, State and Federal leadership, it seems not inconceivable that the National Park Service or the Texas Historical Commission could be involved both in this project as well as that in the following Area B. 3. Area B is in the northern part of Barker Reservoir (Figure 8).  Figure 8. Proposed habitat restoration areas with historical features. It was originally native prairie, with a strip of riparian forest along Buffalo Bayou. Restoring a large swath of native prairie on either side of the bayou, with a hiking trail placed along the original location of the San Felipe Trail, would provide a glimpse of Houston's natural heartland at its earliest origins. The hiking trail would start at Barker dam site, where three interpretive markers already tell the story of Wheaton's Inn of 1830 and the use of the trail by African Americans after Emancipation in 1865. The trail would then follow the original position of the old frontier San Felipe Trail of 1830. Other markers could be	

COMMENT	RESPONSE
added along the trail to highlight the use of the prairie and bayou during over 13,000 years of Native American presence here, as well as their methods of bison hunting. These panel exhibits and the hiking trail would easily survive periodic flooding, as would the prairie vegetation. Once re-established, only periodic mowing once or twice a year would be needed to keep up the coastal prairie landscape. It should be a regional showpiece. These two areas, combined, would greatly enlarge the public park space in Houston. Neither area is visited much today, as they both are covered by tangled woody invasive growth. I recommend that such enhancements be considered for incorporation into the revised USACE Master Plan for future development.	
Over the years, wetlands have decreased. I have noticed this is three areas all south of Nobel Road. The southeast area once had significant LeConte's Sparrows but maybe a decade ago the area was better drained and shrubs removed. The area between Nobel Road and the gas well once had Sedge and Marsh Sparrows and for the last 4-5 years has not had the water level sustained. The third area is south of Seminole Pipeline adjacent to a long abandoned gas well. I mention this as one of the objectives is to not reduce wetlands. Note: the American Bittern had been seen in each of these areas. Quail is mentioned and they have long since been gone, maybe 15-20 years ago. They may return as I was led to believe fire ants were the issue and fire ant mounds have decreased. Since work on the Clodine ditch east of the levee was done (2-3 years ago) wintering Hooded Mergansers have been seen regularly. The work on the ditch changed the birds frequenting the ditch. I do not know the factors involved but the specie mix has been altered generally having more birds. For the Buffalo Bayou Christmas Count the best sparrow habitat in the circle had been Barker Reservoir. Many factors have combined so the count no longer produces 10+ sparrow species. Part of this is management. Harris county seems to place a premium on increasing the grass cutting with little regard for wild flowers or winter bird habitat. The land under the power lines once had multiple sparrow species but drainage and shrub removal reduce the specie count and bird numbers. Feral hog pens, now inactive, are still blocked from public access in the area east of Barker-Clodine/Cypress Road. There is also remaining a sign saying no access to Hwy 6 from Barker-Clodine and that has not been true for 2 years. I have observed Bobcat and they are not mentioned. Beavers may be gone but evidence shows they were there possibly during the period covered by the report.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
Greetings, I would like to register a comment with the USACE and all its other partners, including the City of Houston. I mention the latter because this process cannot be managed by the USACE alone and is going to be joint effort, including with non-government sources in all likelihood. Houston has during my lifetime always suffered flooding in direct proportion to its expansion. The more concrete, the more flooding. The first solution to this was the reservoirs, and the second was the retention ponds, but both have revealed their limitations. I would like us to adopt the Tokyo Solution: https://www.bbc.com/future/article/20181129-the-underground-cathedral-protecting-tokyo-from-floods In this, the reservoirs would be a first stop before the water is channeled out of the city area through underground channels, sort of like the LA river canal but beneath the earth. Because Houston is at sea level, we cannot rely on regular gravity-based drainage. This water is valuable, in my view. Most of the world is short on safe drinking water, and rainfall is desalinated and can be filtered for us in agriculture or homes. I realize this proposal will require the City and USACE to work together with private partners, but I do not think the problem of the Addicks and Barker reservoirs can be solved in isolation. It needs to be part of a larger solution to the constant flooding in Houston.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.
Thank you for the opportunity to comment on the upcoming Master Plan study. I live just north of Addicks Reservoir and work in the Energy Corridor. I'm involved in efforts to establish more opportunities for active transportation and recreation in my area. I'm familiar with the 2009 Master Plan. 1. Several natural surface traces have seen increased public use over the past 10 years, generally on the legacy roads and along the creeks. Figures 1 and 2 show both existing developed paved trails and natural surface traces. The natural surface traces are valuable when the reservoir is dry as access to this island of wilderness in the urban sea of the Houston metropolitan area. Some of the traces cross areas that are currently classified as environmentally sensitive areas (ESA). There are short sections of low points on these trails that would be much more passable with a limited amount of gravel and small (less than 12") culverts. The Texas Parks and Wildlife annual call for projects could support volunteer-labor low-impact upgrades, but the permitting process in ESA is a concern and has precluded pursuit of this funding source in the past. Some recognition in the Master Plan that would facilitate low-impact improvements by volunteers in areas classified as ESA would be valuable.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project

COMMENT	RESPONSE
 *Figure 1 Paved Trails and Natural Surface Traces in Addicks*  *Figure 2 Paved Trails and Natural Surface Traces in Barker* 2. There are many opportunities to develop paved trails to support active transportation to existing recreation destinations in the reservoirs and to provide transit across the reservoirs shown conceptually in Figures 3 and 4. Paved multi-use paths to destinations in the reservoir can be funded by the Federal Lands Access Program (FLAP). Trails on federal property outside the reservoir, like the existing George Bush H&B Trail, the Chatterton-Dairy Ashford H&B Trail and the Terry Hershey Extension Trail, can attract state, county and city funding. Indications in the Master Plan that these opportunities can be pursued is important, because the perception of permit friction has historically discouraged the detailed study needed to get an alignment funded.	purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

COMMENT	RESPONSE
 *Figure 3 Possible Active Transportation Alignments in Addicks*  *Figure 4 Possible Active Transportation Alignments in Barker* 3. I encourage you to preclude the expansion of motor vehicle roads in the reservoir as envisioned by the City of Houston's 2023 "Major Thoroughfare and Freeway Plan" (MTFP) (Figure 5). In general, these roads reach no destinations inside the reservoirs and only serve as parallel routes to existing roads. Specifically: -The only destinations inside the reservoirs for the Hammerly extension and Patterson expansion [A] are the Bear Creek Pioneers Park and the county fairgrounds. I frequent this area and these destinations are already adequately served by the existing roads.	

COMMENT	RESPONSE
-The extension of Queenston south and expansion of Groschke [B] could only be justified by dense development of the private parcels east of the airport. I've never encountered any delays in the area of the West Airport area as currently developed. -The crossing at Kingsland [C] and at Briar Forest/Noble Road [D] and the extension of Barker Cypress [E] would serve no new destinations. -The extension of Baker Road south [F] could only be justified by dense development along the west side of the federal lands.  *Figure 5 Excerpt from City of Houston 2023 MTFP* To summarize, the two reservoirs are the lungs of Houston and we need to keep them healthy. Improving active transportation access around and through the reservoirs, secondary to the flood control mission, will provide low-impact public access to the closest thing Houston has to wilderness in the metropolitan area.	
Would be great to have some sort of amphitheater or other type entertainment venue. There is nothing like that in the area. Not in the area of your scope, but it could make Terry Hershey so much more usable if a bike lane were put in on the North Side of Memorial, West of Eldridge continuing to the Terry Hershey parking lot.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized

COMMENT	RESPONSE
	project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Is tunneling under I-10 to the gulf still under consideration? I prefer it.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural

COMMENT	RESPONSE
	resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
USACE management of env. Sensitive areas within leased land. How can HCP4 support management of ESA plants within the land we lease. Maps detailing area of Prairie Dawn; how to protect from public? Land Management for Habitat Restoration within recreational park land. Old golf course could be eligible for funding from Galveston Watershed.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
It would be very desirable if the NW corner of the Addicks Reservoir at HWY6 and Clay RD could be designed for the potential installation of an outdoor music amphitheater venue to bring live entertainment to West Houston.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized

COMMENT	RESPONSE
	project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
NON-GOVERNMENTAL AGENCIES	
Dear (NAME REDACTED), It was good meeting you yesterday at the Corps public meeting about the revision of the Addicks/Barker Reservoirs (ABR) Master Plan. The Houston Sierra Club provided scoping comments for the ABR Master Plan on July 26, 2024. After talking with you, seeing the presentation, and talking with others at the public meeting, the Sierra Club provides these additional public comments: 1. If the Corps decides to provide more storage capacity in ABR, the Sierra Club recommends that the top 1 foot or more of topsoil be saved so that any prairie grass/wildflower seedbed is saved and can be reapplied to assist in the restoration of native prairie plants. 2. If the Corps decides to provide more storage capacity, it's very important that shallow water aquifers, water lens, and groundwater table/level is studied so that beneficial biological uses of this water in seeps, during hot weather, and flows into tributaries is protected and not degraded. 3. There may be opportunities in existing bottomland hardwood forested wetlands to add native trees in our area via planting to provide greater diversity and restoration of the bottomland canopy, midstory, and understory. 4. The Sierra Club suggests that existing overflow areas where development has occurred are prime areas for acquisition to reduce human flooding problems and provide greater buffers between development and ABR. There may be areas downstream of ABR whose acquisition would assist in the biological connectivity of ABR to the rest of the Buffalo Bayou Floodplain.	Noted. The Master Plan is intended to serve as a comprehensive land and recreational management plan with a life span of 25 years. It guides the stewardship of natural and cultural resources and the provision of outdoor recreation facilities and opportunities to ensure sustainability of federal land associated with Addicks and Barker Reservoirs. The management of flood waters or future modifications to the reservoirs are not included in the master plan.

COMMENT	RESPONSE
5. It would be helpful in the draft Master Plan to have the proposed recreation areas, which colored black on the ABR maps, listed with the acres for each recreational activity proposed and the agency who proposed it. 6. It would be helpful in the draft Master Plan to have high and low-density recreation areas separated on maps and discussed separately in the ABR Master Plan. The Sierra Club thanks the Corps for this opportunity to comment.	
Coastal Prairie Conservancy comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston Regional Group of the Sierra Club comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public

COMMENT	RESPONSE
	interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston Wilderness comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the

COMMENT	RESPONSE
	project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
Houston stronger comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.
GOVERNMENTAL AGENCIES	
City of Katy comment can be found following this table.	Noted. The Master Plan seeks to provide the best management practices to respond to regional needs, resource capabilities and capacities, and expressed public interests consistent

COMMENT	RESPONSE
	with authorized project purposes. Protect and manage the project's natural and cultural resources through sustainable environmental stewardship programs. Provide public outdoor recreation opportunities that support project purposes and public interests while sustaining the project's natural resources. Additional Goals and Objectives can be found in Chapter 3 of the Master Plan.

(1)One additional public comment was received via .pdf file, but it the file was corrupt, and the study team was unable to open the document.

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www.coastalprairieconservancy.org
info@coastalprairieconservancy.org

Coastal Prairie Conservancy
Formerly Katy Prairie Conservancy

September 18, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Suite 101
Houston, Texas 77077

Subject: Recommendations to the Addicks and Barker Master Plan

Dear [redacted]:

As the President and CEO of the Coastal Prairie Conservancy (CPC), I want to commend you, [redacted], and the U.S. Army Corps of Engineers for undertaking the update of the Addicks and Barker Master Plan. This process is essential in ensuring the long-term ecological and recreational value of these lands in addition to ensuring the fulfillment of Addicks and Barker's primary flood control purpose. CPC appreciates the opportunity to provide input, particularly in ways that can enhance the ecological and environmental values of these properties, considering their historical significance as coastal prairies.

In addition to our organization's comments and suggestions as noted below, I would also like to note full support for the letter submitted by Houston Stronger. We agree with the ecological and environmental recommendations in the letter along with the suggestion of terrain modification to increase the reservoirs' storm water storage capacity. Addicks and Barker Reservoirs have played a critical role in protecting Houston from floodwaters for the past 70 years – at least until Hurricane Harvey. The suggestions in Houston Stronger's letter regarding terrain modifications can help ensure that the reservoirs can continue to play a pivotal role in flood mitigation long into the future.

We understand the necessity of maintaining certain categories, such as project operations, however, there are several opportunities within other categories to promote conservation and ecological restoration in additional to enhancing recreation and public access. Our comments are intended to more fully amplify ways in which the Corps can ensure that the ecological and environmental values of the property are enhanced.

[redacted]

1. Vegetative Management: Given that Addicks and Barker were once coastal prairies, we recommend focusing on restoring and managing native prairie vegetation where appropriate. This could involve reintroducing native grasses and forbs, managing invasive species, and enhancing biodiversity. The integration of wetlands into these areas could further support native wildlife, improve water quality, and offer educational and research opportunities.

2. Wildlife Management: To create a more diverse and resilient ecosystem, there may be areas where additional habitat restoration projects could be undertaken – ones that support a range of native species, including amphibians, birds, and other wildlife – and contribute to the overall ecological health of the reservoirs. Prairie restoration could certainly improve habitat for upland bird species as well as for pollinators, many of whom are experiencing decline because of the loss of grassland habitat and flowering plants.

3. Low Density Recreation: Enhancing low-density recreational areas with additional interpretive trails and educational signage about the ecosystem and habitats found in Addicks and Barker can serve to protect sensitive areas while educating the public. The development of trails that are light on the land and incorporate boardwalks over sensitive wetland areas can offer unique wildlife observation opportunities without significant environmental impact. In addition, creating more low-density recreation areas will allow the public more recreational opportunities. Access to nature plays a critical role in improving the health and well-being of communities. Studies show that just two hours per week in green spaces can lead to measurable health benefits such as reduced stress, improved mental health, enhanced concentration, and faster healing.

4. Environmentally Sensitive Areas: We recommend expanding the designation of Environmentally Sensitive Areas to include regions that support rare or sensitive prairie ecosystems and newly restored wetlands. Protecting these areas ensures the preservation of their ecological integrity and adds value to the overall landscape. The Corps already works with the U.S. Fish and Wildlife Service to monitor Hymenoxis Texana (Texas prairie dawn) sites, and The Corps pays special attention to the sensitive cultural and archeological sites, including riparian corridors, etc. It would also be good for the Corps to work with Texas Parks and Wildlife and with local groups to ensure that all possible sensitive habitat areas are identified and protected.

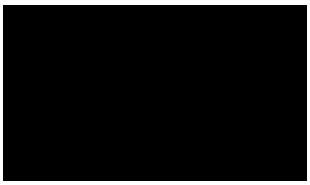
5. Inactive and/or Future Recreation Areas: For future recreational areas, we suggest integrating other recreational uses such as birdwatching, nature photography, and educational programs that highlight the unique coastal prairie and wetland ecosystems.

This approach can create spaces that offer recreational opportunities while contributing to the overall ecological health of Addicks and Barker.

We believe these enhancements will contribute significantly to the ecological value of Addicks and Barker and align with the goal of preserving and restoring the coastal prairie ecosystem. We greatly appreciate the Corps' efforts in managing these lands and look forward to collaborating on initiatives that support both conservation and sustainable recreation.

Thank you for considering these recommendations. We are eager to continue this dialogue and support the implementation of the updated Master Plan.

Sincerely,



July 26, 2024

[redacted]
Chief
Houston Project Office
Addicks/Barker Reservoirs
U.S. Army Corps of Engineers
Galveston District
1011 Highway 6 South
Suite 101
Houston, Texas 77077

Dear [redacted],

Enclosed are the scoping comments of the Houston Regional Group of the Sierra Club (Sierra Club) regarding the U.S. Army Corps of Engineers (Corps), Galveston District, proposed revision of the Addicks/Barker Reservoirs (ABRs) Master Plan (MP), Buffalo Bayou and Tributaries, Fort Bend and Harris Counties, Texas.

1) Non-native invasive plant and animal species (NNIPAS) must be controlled to reduce the negative impacts they have on natural ecosystems, native plants and animals, and human structures. The Corps should put together a list of NNIPAS, the problems they create, and how they will be controlled for the draft MP and solicit input from the public about this issue.

The Sierra Club is concerned that obvious NNIPAS, like Chinese Tallow, are often evident in high use places where the public has easy access. This gives citizens the idea that the Corps isn't focused on reduction of NNIPAS. The Sierra Club understands that this isn't the case and urges the Corps to have an active, visible, NNIPAS control and reduction program.

NNIPAS like Mcartney Rose, non-native privets, Japanese Climbing Fern, Chinese Tallow, Chinaberry, etc., must be prevented and controlled to reduce their impacts on native terrestrial and aquatic plants, native fish and wildlife species, and native ecosystems.

Feral hogs, nutria, crazy ants, and fire ants must also be controlled. The Corps should cooperate with other agencies, counties, cities, towns, and citizens to come up with a regional plan to reduce the numbers significantly of feral hogs, nutria, crazy ants, and fire ants. This can be done but requires patience and dedication. Control of NNIPAS should be a pillar of the MP.

It's important that the Corps prevents the introduction of NNIPAS by keeping restricted and prohibited lists updated, insuring enforcement actions at the boundaries, cleaning equipment and vehicles to reduce NNIPAS spread, and cooperating with local, state, and federal enforcement and administrative officials. NNIPAS will also be reduced in numbers if the Corps focuses on the

maintenance, restoration, and protection of healthy terrestrial and aquatic ecosystems.

The Corps should recruit and train citizens so they can assist with the protection of ecosystems via identification of NNIPAS in ABRs.

2) Climate change, and its effects, like more frequent and intense rainfalls, sea level rise, more frequent and intense storms, and greater temperature heat effects must be addressed. Buffalo Bayou and its tributaries and the ABRs will be significantly affected by climate change. There must be an acknowledgment of this and how the ABRs will be managed for this in the MP.

The best thing to do is to ensure that ecosystems are healthy so that the natural processes they perform function, and they can adapt to climate change. This includes buffers to allow bottomland hardwood forested wetlands and other ecosystems to be protected from other uses so that they remain healthy.

The Corps needs a plan. The Corps needs to think at least 200 years in the future and have points in time where it will implement certain actions when certain climate changes or magnitude of changes occur. This is adaptive management and must be covered in the MP. “Management for the long-term” is a key philosophy along with “work with Nature, not against”, and “keep people out of harm’s way”.

The Corps should address the increase in temperature and heat due to climate change with safety information and shade structures (small and integrated into the landscape) so that people are protected and forewarned about this danger.

3) Environmentally sensitive areas are important. What is equally important is the level of protection from human action and activities that these areas receive. It’s very important that there be adequate personnel to conduct patrols to ensure that illegal uses, actions, trespassing, and damaging activities are limited, minimized, and avoided. The Sierra Club agrees that maintenance, protection, and restoration of wetlands in ABRs is a high priority.

Some of this protection can be done with public education but we need strong enforcement and compliance rules and the personnel to implement these. This includes interactions with landowners and ensuring that they don’t trespass or attempt to use federal public land to enhance themselves economically or personally. Development has closed in on the ABRs. The Corps must plan for more intense pressures from development and its environmental impacts on the ABRs. Boundary marking and enforcement is very important for the MP to address.

There is a need to protect and restore more native coastal prairie in the ABRs. Buffers are needed between areas to ensure that environmentally sensitive areas don’t have spillover effects from recreation areas.

ABRs is one of the largest and last public land sites where prairie restoration can be implemented and practiced. There needs to be more prairie dedicated to sensitive areas and protected from multiple uses that reduce prairie ecosystem benefits.

The Corps should recruit and train citizens so they can assist with the protection of terrestrial and aquatic ecosystems in ABRs. The Corps should aggressively protect terrestrial and aquatic ecosystems and consult and communicate with the public and relevant agencies about these efforts.

4) Water instream flows are paramount to the health of the ABRs. These flows help maintain the bottomland hardwood forested wetlands and riparian woodland ecosystems and the floodplains that they contain.

5) All lands in the MP should be given a “Mitigation” label so that mitigation can occur on them, either directly or indirectly, due to environmental impacts they will receive from human sources.

6) Any recreation allowed in the MP should be low impact and compatible with the protection of ecosystems and management (light-handed management) of natural ecological systems and processes. The Sierra Club doesn’t support the use of motorized vehicles, except on existing roads. No public recreational off-road vehicle use should be allowed.

7) Mountain bike use should occur on a separate system of trails from hiking/walking/running trails because the speed and experiences are different for these two trail users. There are matters of safety, compatibility, and user conflict between these two users that need to be addressed and reinforced by the MP.

8) Terrestrial trails must be compatible with the ecosystems where they are found. Since the ABRs consist primarily of riparian and aquatic ecosystems, flooded reservoirs, and wet prairie ecosystems, terrestrial trails should be limited to areas that can withstand these wet conditions.

Operation, maintenance, repair, and rehabilitation of terrestrial trails is difficult in such wet ecosystems without permanent soil erosion, compaction, rutting, puddling, sedimentation, and other problems. Additional rainfall due to climate change will make the use of trails more difficult.

9) The Sierra Club, in general, doesn’t support commercial concessions and quasi-public development of any of ABRs in the MP. Making money shouldn’t be the reason that any activity is on public lands in the ABRs. Low Density Recreation should be emphasized because it’s cheaper to construct, maintain, can be lower in impact, and more compatible with other management of the ABRs.

10) The Sierra Club recommends that certain areas should be designated as Fish and Wildlife Sanctuaries with restrictions so that fish and wildlife species

have places where they can rest, migrate, feed, nest, and spawn. Expansion of and the restoration and maintenance of native prairies is an important element that should be addressed in the MP.

11) The Sierra Club opposes maximizing the use of limited public lands. This leads to land degradation on a landscape scale and overcrowding and will be detrimental to the enjoyment of solitude, natural sounds, natural dark, and other important public land features and values including the spiritual renewal that natural lands provide and a low noise environment. The Corps should include the protection of solitude, quiet, natural sounds, natural dark, and spiritual renewal in the MP.

The Corps should encourage people of all ages and abilities to experience the outdoors; educate the public about the importance of environmental protection; expand outreach to increase awareness and participation in the conservation of natural and cultural resources; and increase citizen awareness of the value of urban ecosystems. Face-to-face meetings should be emphasized because of the importance they have in providing social meaning for environmental protection.

12) The Sierra Club doesn't support logging forests under "Vegetation Management", "Wildlife Management", or any other land classification. It's one thing to cut down Chinese Tallow or other NNIPAS. But logging other trees isn't justified in the ABRs. There is no need for it. The Sierra Club urges the Corps not to allow logging of forests in the MP. Prescribed burning should be used to control woody plants.

13) The Sierra Club agrees that utility corridors should be used as much as possible to reduce fragmentation of the ABRs. The Corps should discuss mineral rights and the ABRs and how their management fits in with management of other uses in the MP. Utility corridors could be places where native prairies can be restored.

14) The Sierra Club supports cultural resources protection and interpretation in the MP.

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

[redacted]
Conservation Committee
Houston Regional Group of the Sierra Club
4300 Dunlavy St., Apt. 3138

Houston, Texas 77006
[redacted]
[redacted]

HOUSTON WILDERNESS
It's Our Nature

September 18, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Houston, TX 77077

Sent by email: [redacted]

RE: Houston Wilderness (HW) Comments to USACE Master Plan Update for Addicks & Barker Reservoirs

Dear [redacted]:

On behalf of the Board of Directors of Houston Wilderness, we provide the below comments to USACE Master Plan Update for Addicks & Barker Reservoirs. Houston Wilderness (HW) is an environmental policy non-profit organization that works with a broad-based alliance of business, environmental and government interests to protect and promote the 10 diverse ecoregions of the multiple counties around Houston, Galveston Bay, and the Gulf of Mexico, including coastal prairies, forests, wetlands, and waterways. HW facilitates regional programs to implement/install nature-based infrastructure on private and public lands with targeted native tree plantings, and installation of native grass bioswales and the newly created Southeast Texas Native Seed Mix to substantially improve ecosystem services related to reducing soil erosion, mitigating local air and water pollution and surface runoff, enhancing soil carbon and wildlife habitat, and improving local public health and community well-being.

Many difficult and at times devastating lessons were learned from the damage caused by Hurricane Harvey, and the years of substantial erosion and ecological deterioration caused some damage that could have been prevented by more diligent restorative work inside the reservoirs. The new USACE master plan's long-term goals, management objectives, and land classifications should reflect these needed changed conditions and lessons learned. Houston Wilderness recommends that the updated master plan include as a goal consistent emphasis on innovative strategies that advance the primary authorized purpose of the reservoirs: Flood Damage Reduction. The updated master plan also should include a goal to allow these 26,000 acres of publicly owned land to be enhanced, improved and managed as a recreational and natural resource for the entire region. We believe that increased ecological restoration (through nature-based infrastructure) of both reservoirs will provide substantial benefit and can be combined with needed dredging while avoiding construction of additional man-made (gray infrastructure) structures. We also encourage a measure in the master plan to 1) create a collaborative forum of land managers to promote strategic restoration opportunities, and 2) provide a process to collaborate with local and regional environmental restoration groups that have the expertise to assist with implementation of nature-based infrastructure with multiple benefits for Addicks and Barker Reservoirs. USACE also should consider working closely with these and other entities that have experience and success in innovative approaches that provide multiple benefits to achieve the above objectives and that USACE identify ways to accept donated or financial resources to assist with these efforts. While limited agency resources may impact the ability to increase reservoirs' management, using current resources to more deliberately direct and help prioritize/inform efforts would be an effective measure to include in the master plan for restorative efforts. We support using a watershed approach and managing sediment as a resource in the reservoirs and along Buffalo Bayou – encouraging inclusion of more forest management and agricultural practices. Multiple studies show that the planting

of native vegetation species reduces runoff by about 50% and erosion by 90% in forested areas.

Regarding land classifications, USACE should continue to classify certain land within the reservoirs as Environmentally Sensitive, with these areas generally being found along riparian corridors. However, the Corps also should study and identify any new environmentally sensitive areas, e.g., areas with prairie dawn, areas that harbor wildlife species of concern, etc. Given that the reservoirs were originally part of the historic Katy Prairie, care should be taken to restore areas back to native prairie where possible. We also support continued partnerships with other government agencies to offer High Density Recreation in certain areas of the reservoirs. Furthermore, Houston Wilderness supports continued inclusion in the master plan of these land classification areas in generally their current form, but we also acknowledge that future changes to those boundaries could be advisable based on sound science and benefits to our community made possible by innovative new strategies.

We also support continued protection of the land and improvements directly tied to Project Operations. In this regard, sediment management planning can include beneficial use options that utilize dredged material for a productive purpose such as habitat restoration/enhancement, construction and industrial use, etc. Such a measure would view dredged material as a valuable and manageable resource. We support the Corps looking for opportunities to use sediments beneficially in the system, either though maintaining it in the system for ecosystem purposes, or other uses - welcoming opportunities for beneficial use from willing and interested partners for any justified actions involving dredging.

Given changing conditions in and around the reservoirs and along Buffalo Bayou, Houston Wilderness is requesting updates to the Multiple Resource Management Lands classification (MRM). USACE policy allows MRM areas to be used for low density recreation, wildlife management, vegetation management, and future recreation areas. Hurricane Harvey taught us that we need to develop new flood damage reduction strategies that can provide multiple benefits. In the case of the reservoirs' MRM areas, activities that "do not interfere with the authorized purpose of Flood Damage Reduction" but directly support that authorized purpose should be prioritized. This should include terrain modification to increase the reservoirs' storm water storage capacity at a small scale under Section 219 and a larger scale if proven feasible to maximize benefits to the community and the environment.

Additional low impact recreation (such as high-quality trails) and mitigation, which are two land uses the current master plan does not appear to provided for in MRM areas, which also should be authorized in advance and encouraged. Other than allowing access to MRM areas for low density recreational use, Houston Wilderness does not consider additional High-Density Recreation to be appropriate in MRM areas.

USACE cannot endorse any specific approach that emerges from these master plan changes. However, to the extent possible, we are hopeful that the master plan authorizes innovative strategies that use terrain modification to provide multiple benefits for our region. These benefits include reintroduction of native habitats, wildlife and vegetation; regionally significant low-density/nature-based recreation; and additional Flood Damage Reduction. For example, much of the reservoirs' land was once prairie, but now after many

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decades managed as reservoirs, much of the land has transformed into dense forests with many undesirable, invasive species. Removal of these non-native invasive species is critical, as discussed above, and prairie and native tree restoration can take place throughout the reservoirs, with assistance from a variety of entities as also noted above.

The Master Plan's MRM land classification should allow the terrain of many of these areas to be modified and managed to increase flood control capacity, while also increasing the area's biodiversity, wetland value and ecological value as native prairie and habitat for wildlife and waterfowl. Some of these same areas could also be opened for more access to low-density, nature-based recreation like hiking, wildlife/waterfowl viewing, and non-motorized boating. Terrain modification also could allow the Houston region to minimize the loss of wetlands, enhance the quality of the public's experience of recreational areas, and restore a broad range of ecosystems.

These benefits can be provided while also protecting significant archeological and historical features found in the reservoirs. In all cases, activities allowed within MRM areas must still accommodate threatened or endangered species that may be present outside of Environmentally Sensitive areas.

Thank you for inviting these comments. Feel free to contact us with any questions or additional information.

Sincerely,

[redacted]

[redacted]
HW President

[redacted]

[redacted]
HW Board member

HOUSTON STRONGER

September 16, 2024

U.S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Houston, TX 77077

RE: Comments to USACE Master Plan Update for Addicks & Barker Reservoirs

Dear [redacted]:

Thank you for allowing citizens in the Houston region to comment on USACE's planned update to its 2009 Master Plan. Houston Stronger agrees with USACE that the current master plan is out of date. Because of continued growth, development and redevelopment in west Houston, and our community's evolving recreational preferences, environmental, cultural and recreational conditions have changed dramatically upstream and downstream of the reservoirs. We also have learned many lessons from the damage caused by Hurricane Harvey. The new master plan's long-term goals, management objectives, and land classifications should reflect these changed conditions and lessons learned. Houston Stronger recommends that the updated master plan should include as a goal consistent emphasis on innovative strategies that advance the primary authorized purpose of the reservoirs: Flood Damage Reduction. The updated master plan also should include a goal to allow these 26,000 acres of publicly owned land to be enhanced, improved and managed as a recreational and natural resource for the entire region.

With regard to land classifications, USACE should continue to classify certain land within the reservoirs as Environmentally Sensitive, with these areas generally being found along riparian corridors. However, the Corps also should study and identify any new environmentally sensitive areas, e.g., areas with prairie dawn, areas that harbor wildlife species of concern, etc. Given that the reservoirs were originally part of the historic Katy Prairie, care should be taken to restore areas back to native prairie where possible. We also support continued partnerships with other government agencies to offer High Density Recreation in certain areas of the reservoirs. Furthermore, Houston Stronger supports continued inclusion in the master plan of these land classification areas in generally their current form, but we also acknowledge that future changes to those boundaries could be advisable based on sound science and benefits to our community made possible by innovative new strategies. Of course, we also support continued protection of the land and improvements directly tied to Project Operations.

Given changing conditions, Houston Stronger is requesting updates to the Multiple Resource Management Lands classification (MRM). USACE policy allows MRM areas to be used for low density recreation, wildlife management, vegetation management, and future recreation areas. Hurricane Harvey taught us that we need to develop new flood damage reduction strategies that can provide multiple benefits. In the case of the reservoirs' MRM areas, activities that not only "do not interfere with the authorized purpose of Flood Damage Reduction" <u>but directly support that authorized purpose</u> should be prioritized. This should include terrain modification to increase the reservoirs' storm water storage capacity at a small scale under Section 219 and a larger scale if proven feasible to maximize benefits to the community and the environment. Additional low impact recreation (such as high-quality trails) and mitigation, which are two land uses the current master plan does not appear to provide for in its MRM areas, also should be authorized in advance and encouraged. Other than allowing access to MRM areas for low density recreational use, Houston Stronger does not consider additional High-Density Recreation to be appropriate in MRM areas.

USACE cannot endorse any specific approach that emerges from these master plan changes. However, to the extent possible, we are hopeful that the master plan authorizes innovative strategies that use terrain modification to provide multiple benefits for our region. These benefits include reintroduction of native habitats, wildlife

and vegetation; regionally significant low-density/nature-based recreation; and additional Flood Damage Reduction. For example, much of the reservoirs' land was once prairie, but now after many decades managed as reservoirs, much of the land has transformed into dense forests, with many undesirable, invasive species.

The Master Plan's MRM land classification should allow the terrain of many of these areas to be modified and managed to increase flood control capacity, while also increasing the area's biodiversity, wetland value and ecological value as native prairie and habitat for wildlife and waterfowl. Some of these same areas could also be opened for more access to low-density, nature-based recreation like hiking, wildlife/waterfowl viewing, and non-motorized boating. Terrain modification also could allow the Houston region to minimize the loss of wetlands, enhance the quality of the public's experience of recreational areas, and restore a broad range of ecosystems.

These benefits can be provided while also protecting significant archeological and historical features found in the reservoirs. In all cases, activities allowed within MRM areas must still accommodate threatened or endangered species that may be present outside of Environmentally Sensitive areas. USACE's partnership with the City of Houston's Cullen Park outside its existing High Density Recreation facilities in Addicks Reservoir also is a consideration.

In summary, the Master Plan Update should allow modifications to the reservoirs and land uses that further effective Flood Damage Reduction. The reservoirs' 26,000 acres also have incredible potential to mitigate our region's loss of ecological diversity, provide regionally significant wildlife habitat, and greatly enhance our community's access to low impact recreation, all while enhancing the primary purpose of Flood Damage Reduction. To accomplish these goals, USACE should collaborate even more with other groups that have the expertise to fully realize the potential multiple benefits of Addicks and Barker Reservoirs. USACE also should consider working closely with entities that have experience and success in innovative approaches that provide multiple benefits to achieve the above objectives and that USACE identify ways to accept donated or financial resources to assist with these efforts.

Thank you for inviting these comments. Houston Stronger, a 501 (c) (4) not-for-profit coalition of 34 organizations, advocates for federal, state and local funding to support flood resiliency programs and projects throughout the Greater Houston 8-county region. We are dedicated to working with elected and agency officials toward implementing comprehensive flood and storm resiliency improvements, which we believe can be built to also provide recreational amenities, and which will safeguard our citizens and property. Our members and expert advisors stand ready to discuss these comments with USACE as your team prepares its update to the 2009 Master Plan.

Sincerely,

[redacted]

[redacted]

Chair

[redacted]

Executive Director

[redacted]

City of Katy
OFFICE OF THE MAYOR

[redacted]

August 27, 2024

U. S. Army Corps of Engineers
[redacted]
1011 Highway 6 South
Suite 101
Houston, Texas 77077

First Class Mail and Via E-Mail: [redacted]

Re: Addicks and Barker Master Plan

Dear [redacted]

The City of Katy's comments about the future land and recreational management for the Addicks and Baker Master Plan are as follows:

Flood Risk Management and Control

We recommend that both reservoirs continue to be utilized for flood risk management and control. This will ensure effective drainage downstream, mitigating the risk of flooding for surrounding communities.

Recreational and Wildlife Benefits

Additionally, the reservoirs should maintain their current provision of recreational opportunities and their role as limited habitats for local wildlife.

Buffalo Bayou Tributary Integrity

It is crucial that the size and flow of the Buffalo Bayou tributary remain unchanged and in its natural state to preserve the current environmental balance and protect the broader ecosystem.

Barker Reservoir Volume Retention

Finally, we propose that the Barker reservoir retains proper volume levels to sustain its ongoing functionality and operational effectiveness.

Thank you for the opportunity to provide the City of Katy's comments on the Addicks and Barker Master Plan.

Sincerely,

[redacted]

Mayor of the City of Katy

WHT/kjs

DRAFT MASTER PLAN PUBLIC COMMENTS

Section to be added after draft release.

APPENDIX F – ACRONYMS

AQI	Air Quality Index
CFS	Cubic Feet per Second
CRMP	Cultural Resources Management Plan
DM	Design Memorandum
EA	Environmental Assessment, NEPA Document
EOP	Environmental Operating Principles
EP	Engineering Pamphlet
EPA	United States Environmental Protection Agency
ER	Engineering Regulation
ESA	Environmentally Sensitive Area
°F	Degrees Fahrenheit
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination act of 1958
GIS	Geographical Information Systems
HDR	High Density Recreation
HPMP	Historic Properties Management Plan
HQ	USACE Headquarters (also HQUSACE)
IPaC	Information for Planning and Consultation
LDR	Low Density Recreation
LEED	Leadership in Energy and Environmental Design
MP	Master Plan or Master Planning
MWCM	Master Water Control Manual
MRML	Multiple Resource Management Lands
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act, 1970
NGVD/NGVD29	National Geodetic Vertical Datum (1929)
NHPA	National Historic Prevention Act
NRHP	National Register of Historic Places
NRCS	Natural Resource Conservation Service
NRHP	National Registry of Historic Places
NWI	National Wetland Inventory
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OMP	Operations Management Plan for a specific lake Project
PL	Public Law
PO	Project Operations
RPEC	Regional Planning and Environmental Center
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SGCN	Species of Greatest Conservation Need
SHPO	State Historical Preservation Office
TCP	Traditional Cultural Properties
TORP	Texas Outdoor Recreation Plan
TPWD	Texas Parks and Wildlife Division
U.S.	United States (also US)

USGCRP	U.S. Global Change Research Program
USACE	United States Army Corps of Engineers
USFWS	U. S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VM	Vegetative Management Area
WDA	Workforce Development Area