

ARKANSAS RIVER CORRIDOR, TULSA COUNTY, OKLAHOMA

Introduction

The Arkansas River is a water resource serving numerous nationally significant purposes. The river has historically served as a nationally significant resource for aquatic and terrestrial habitat of the nation's wildlife that live, breed, and migrate through the Arkansas River ecosystem. This includes federally endangered Interior Least Tern (Least Tern, *Sterna antillarum*), a nationally significant resource, and one federally threatened bird species, the Piping Plover (*Charadrius melodus*) as well as a plethora of native species and migratory waterfowl that support a healthy and functional riverine ecosystem. Keystone Lake and its dam located along the Arkansas River play vital roles in supporting the continued provision for these species, as well as many other purposes. In particular, the lake and dam provide flood risk management benefits, contribute to the eleven reservoir system operation of the McClellan-Kerr Arkansas River Navigation System, provide clean and efficient power through the associated hydropower plant, and provide a source of water for municipal and industrial uses. However, construction, operation, and maintenance of the Keystone Dam, lake, associated hydropower operations and other multipurposes have significantly degraded the riverine ecosystem structure, function, and dynamic processes below Keystone Dam on the Arkansas River within Tulsa County, Oklahoma.

Purpose

This study is in response to the Section 3132 authorization of the 2007 WRDA. The purpose of this study is to evaluate the aquatic ecosystem restoration components of the October 2005 Arkansas River Corridor Master Plan (ARC Master Plan) and determine if there is a Federal Interest that aligns with the Corps of Engineers' ecosystem restoration mission.

Study Authority

The Arkansas River Corridor study is authorized in the Water Resources Development Act (WRDA) of 2007, Section 3132.

Section 3132. Arkansas River Corridor.

- (a) IN GENERAL. The Secretary is authorized to participate in the ecosystem restoration, recreation, and flood damage reduction components of the Arkansas River Corridor Master Plan dated October 2005. The Secretary shall coordinate with appropriate representatives in the vicinity of Tulsa, Oklahoma, including representatives of Tulsa County and surrounding communities and the Indian Nations Council of Governments.
- (b) AUTHORIZATION OF APPROPRIATIONS. There is authorized to be appropriated \$50,000,000 to carry out this section.

Non-Federal Sponsor

Tulsa County is the non-federal sponsor for the Arkansas River Corridor feasibility study. An amended feasibility cost-sharing agreement was executed in May 2015.

Recommended Plan

Alternative 5 is the National Ecosystem Restoration (NER) Plan and includes construction of a pool structure at River Mile 530 to regulate flow in the Arkansas River, a rock riffle feature associated wetland plantings at Prattville Creek, and construction of a sandbar island near Broken Arrow, OK. With the implementation of the NER plan, more natural river flow would return to 42 river miles of the Arkansas River within the study area. The NER plan would provide approximately 2,144 acres of additional riverine habitat, nearly doubling the amount of currently available habitat under low flow conditions. Also five acres of restored wetlands, and three acres of reliable sandbar island habitat where none currently succeed, would be restored as part of the NER plan. Shoreline, river, backwater, slackwater, wetland, and sandbar island habitat quality would all be improved generating an overall increase in the ecosystem quality and carrying capacity of the corridor. Current operation of Keystone Dam would not be changed. Additional water and flow would remain within the existing banks of the river and would not increase the flood elevation, nor downstream or backwater flooding.

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I. PURPOSE OF THE REAL ESTATE PLAN

The Real Estate Plan (REP) outlines the Federal real estate acquisition requirements for the Arkansas River Corridor Feasibility Investigation, Tulsa County, Oklahoma, in accordance with the Arkansas River Corridor Feasibility Phase Project Management Plan, dated April 28, 2015. The feasibility study documents the planning process and information used to identify the Recommended Plan associated with ecosystem restoration, water quality, and recreation along the 42-mile Arkansas River Corridor within Tulsa County, Oklahoma. The information contained herein is tentative in nature and for planning purposes only.

II. PROJECT AUTHORIZATION

The Arkansas River Corridor study is authorized in the Water Resources Development Act (WRDA) of 2007, Section 3132.

Section 3132. Arkansas River Corridor.

- (a) IN GENERAL The Secretary is authorized to participate in the ecosystem restoration, recreation, and flood damage reduction components of the Arkansas River Corridor Master Plan dated October 2005. The Secretary shall coordinate with appropriate representatives in the vicinity of Tulsa, Oklahoma, including representatives of Tulsa County and surrounding communities, and the Indian Nations Council of Governments.
- (b) AUTHORIZATION OF APPROPRIATIONS There is authorized to be appropriated \$50,000,000 to carry out this section.

Implementation guidance provided for Section 3132 requires a cost-shared study be completed following the guidelines in Engineering Regulation (ER) 1105-2-100, Appendix H, for projects authorized without a report. No project construction may be initiated until funds are specifically appropriated to accomplish the work.

III. NON-FEDERAL SPONSOR AND ITS RESPONSIBILITIES

Tulsa County is identified as the Non-Federal Sponsor (NFS) for the Arkansas River Corridor Project. The Arkansas River corridor below Keystone Dam has been the subject of a long-term cooperative partnership between the U.S. Army Corps of Engineers (USACE) and Tulsa County. Local governmental representatives and the USACE began studying the Arkansas River Corridor for water resource opportunities resulting in the publication of a Vision Plan (2004), a Master Plan (2005), and an Ecosystem Restoration Plan (2009), which resulted in Project Authorization in the WRDA 2007, Section 3132.

Tulsa County is required to provide all lands, easements, rights-of-way, relocations, and disposals (LERRD) for construction of the project, including those required for access,

relocations, mitigation, the borrowing of material, and the disposal of dredged or excavated material; to perform or ensure the performance of all relocations; and for the construction of all improvements required on lands, easements, and rights-of-way as determined by the Government to be required or to be necessary for the construction, operation, and maintenance of the project.

IV. PROJECT DESCRIPTION AND LOCATION

Construction, operation, and maintenance of the Keystone Dam, lake, associated water supply and hydropower operations and other multi-purposes have significantly degraded the riverine ecosystem structure, function, and dynamic processes along the Arkansas River within Tulsa County. In an effort to remediate some of these impacts, the Corps of Engineers began Federal participation in the Arkansas River Corridor study.

This REP appends the Cost Effectiveness Analysis for the ecosystem restoration, recreation, and flood damage reduction components of the *Arkansas River Corridor Master Plan*. It conceptually describes the proposed project features; provides a general description of LERRD requirements to implement the project; provides a framework for the Federal real estate acquisition requirements; provides an estimated projection of the LERRD acquisition schedule; provides estimated non-Federal LERRD acquisition and administrative costs; and, related Federal LERRD administrative costs.

The project study area, as shown on Figure 1 below, includes the 42-mile long Arkansas River Corridor ecosystem downstream of the Keystone Dam to the Tulsa/Wagoner County line. The Recommended Plan, also known as the recommended National Ecosystem Restoration (NER) plan, is located entirely within Tulsa County, Oklahoma.

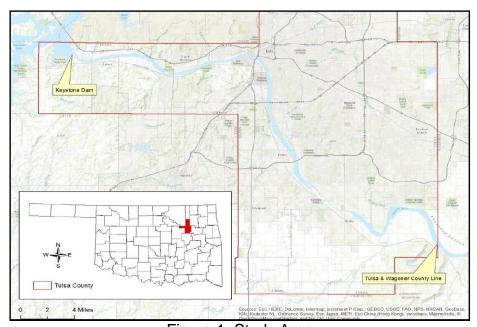


Figure 1: Study Area

The Recommended Plan includes three structures at separate locations on the Arkansas River from the City of Sand Springs to the City of Broken Arrow, Tulsa County, Oklahoma. The structures, beginning from the upstream location in Sand Springs, consist of a constructed pool control structure, a rock riffle and wetland planting complex at the mouth of Prattville Creek in the City of Tulsa, and a constructed sandbar island which would provide nesting habitat for the Least Tern in the middle of the River in Broken Arrow. The specific structural information is conceptual in nature and is incorporated from initial designs, sketches, and quantities to provide a basis for the real estate acquisition information contained in this Report. Specific locations and relevant real estate analysis is therefore preliminary relative to the conceptual design resolution. The REP addresses the structural project features of the recommended plan separately below.

A. Pool Control Structure Below Hwy. 97 Bridge

A pool control structure is proposed for construction on the Arkansas River in Sand Springs, Oklahoma, at approximate River Mile 530, as identified on Figure 2 below. It would create a pool in the River with a maximum crest elevation of 638 feet. At this elevation, the full pool surface area of 1,321 acres would extend upstream to the base of Keystone Dam. The maximum pool volume would remain entirely within the existing river bank.

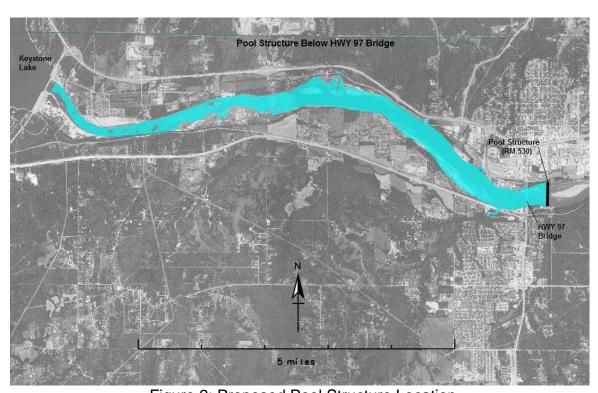


Figure 2: Proposed Pool Structure Location

B. Rock Riffle Structure and Wetland Plantings at Prattville Creek

Prattville Creek is a right-bank tributary to the Arkansas River downstream of the Highway 97 Bridge at Sand Springs, Oklahoma. This fundamental feature consists of a rock riffle at the current confluence of Prattville Creek with the Arkansas River to restore a 5.34-acre wetland area as identified on Figure 3 below. An engineered rocked riffle with weighted toe placed at the mouth of Prattville Creek at an elevation of approximately 640 feet would impound flows from Prattville Creek, and would be overtopped by high flows in the Arkansas River. This would create a wetland providing additional shallow water habitat to the Arkansas River Corridor system, and an area immediately upstream of the rock riffle conducive to velocity refuge, foraging, and nursery habitat for fish.

The rock riffle structure is a prerequisite for riparian and wetland plantings. A portion of this site is located directly under two major Public Service Company of Oklahoma (PSO) power lines. PSO has placed riprap protection for a power line tower in the river channel and in the Prattville Creek area. Any real estate interest and project construction work would be subject to the prior real estate rights of PSO which are outlined in two separate easements. These easement rights include the right to construct, operate, and maintain the transmission lines within an established corridor. The easements do not include any restrictions on the use of the underlying land. Specific locations of the structures are not outlined in either easement, so the structures could be relocated and modified within the established easement right-of-way. The easternmost power line easement requires PSO to pay for all damages to the land, trees, crops, fixtures buildings and improvements caused by the construction, maintenance and repair of said poles, wire and fixtures; however, the westernmost power line easement does not contain the same language.

Currently the nearest structure to the riparian and wetland plantings is a tower supporting the westernmost power line located on a peninsula feature. Given the layout of the project area and after discussions with PSO, the placement or relocation of another tower structure that would impact the riparian and wetland plantings would be highly unlikely. In addition, those plantings within the existing PSO's electrical transmission corridor would generally be under 15 feet in height at maturity to limit the potential for vegetation to interfere with the operation of the line. Wetland plantings around the perimeter of the created wetland would help maintain river bank stability which is an added benefit to PSO and the protection of their structures. In addition, the NFS has stated that they feel there is a very low risk that PSO would modify the banks or vegetation in this area. The current bank stabilization was completed by PSO less than 10 years ago and the area had not been accessed for decades before that work was done.

Current policy would require subordination of PSO's easement rights; however, given the circumstances surrounding the project feature, and the minimal risk described above, the District recommends proceeding without a subordination of the PSO easement rights. Attached as Annex D is NFS correspondence indicating they understand that any damage to project features that does occur due to the exercise of

PSO's easement rights that PSO does not repair or replace will be entirely the NFS responsibility to repair or replace. It may be necessary to add this requirement to the Project Partnership Agreement.

There is also a railroad crossing near this project feature location; however, no adverse impacts to the railroad right-of-way are anticipated.

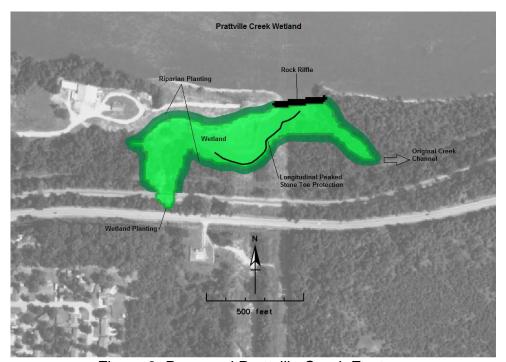


Figure 3: Proposed Prattville Creek Features

C. Least Tern Island

The Least Tern Island would be constructed using stone revetments to facilitate the deposition of riverbed sand and gravel which would provide a protected nesting habitat for the Interior Least Tern. This structure would be located in the middle of the Arkansas River near the Indian Springs Sports Complex in Broken Arrow, Oklahoma, as identified on Figure 4 below. The constructed sandbar would be approximately five acres in size. Approximately three acres of which would sustain nesting habitat. The sandbar island would be circular to oblong in shape, with maximum surface area and a surface height above water to exceed 18 inches at nest initiation (May or June).

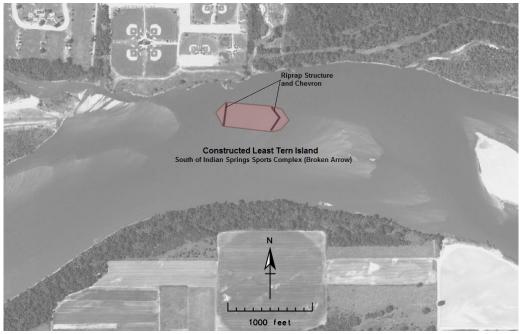


Figure 4: Proposed Least Tern Sandbar Island

V. REAL ESTATE REQUIREMENTS

As outlined above, the Recommended Plan includes three structures at three separate locations on the Arkansas River from the City of Sand Springs to the City of Broken Arrow, Tulsa County, Oklahoma. All features are within the banks of the Arkansas River, but lie upstream of the limits of navigational servitude which does not begin until further downstream at River Mile 464. Construction areas will be located on Federal Government-owned, county (outside LERRD requirements), local municipalities and privately-owned lands. Access associated with project construction will be by easements and county or city roads. The minimum interests in real property necessary to support construction and maintenance of the Recommended Plan are identified in the paragraphs below. All acreages and tract ownership numbers listed below are preliminary and may change upon final project design. All real estate interests required for the project are standard estates except for the perpetual access easements. For this estate, a non-material deviation from Standard Estate 11, Road Easement, is recommended. The proposed estate has been approved by Assistant District Counsel and is attached hereto and incorporated herein by reference as Annex A.

A. Pool Control Structure Below Hwy. 97 Bridge

The Pool Control Structure would require the acquisition of approximately 112.5 acres in fee (Standard Estate 1, EC 405-1-11) for the construction of the dam and 11 acres of perpetual access easements (Non-Material Deviation from Standard Estate 11, Annex A) for ingress and egress for construction, operation, and maintenance. In addition, 1,815 acres of permanent flowage easements (Standard Estate 5, EC 405-1-11) covering the pool and bank from the dam upriver to the base of the Keystone Dam would be required. These flowage easements are required due to the impact to the

underlying fee owner's rights as water will now be held on the land on a more frequent basis. This acquisition would consist of approximately 125 tracts/ownerships.

Table 1 below demonstrates the acreage, ownerships affected, and proposed estate for the Pool Control Structure.

Project Feature	#	#Tracts/	Proposed Estate	
	Acres	Ownerships		
Pool Control Structure	112.5		Fee	
	11.0		Perpetual Access Easement	
	1,815.0		Flowage Easement (Permanent Flooding)	
Total	1,938.5	125		

Table 1: Real Estate Requirements for Pool Control Structure

Due to the number of unknown factors, construction and staging areas would be temporary construction easements (Standard Estate 15, EC 405-1-11). The costs associated with the acquisition of these easements are included in the contingency dollar amounts.

It is currently anticipated that regional stone used to construct the dam structure or armor the banks of the river would be acquired from a local commercial quarry by the construction contractor. No additional design information is currently available to determine whether additional borrow/excavation sites will be required and whether additional sites would be required for disposal; however, the costs associated with these sites are included in the contingency dollar amounts. A final determination will be made upon further project design. Should such sites be required, they would be included as part of the LERRD in the final REP.

B. Rock Riffle Structure and Wetland Plantings at Prattville Creek

The Riffle Structure and Wetland Plantings would require the acquisition of approximately 20 acres. This 20 acres would consist of approximately 16.5 acres in fee (Standard Estate 1, EC 405-1-11) for the rock riffle structure, wetland pool and plantings area and approximately 3.5 acres for access for construction, operation, and maintenance (Non-Material Deviation from Standard Estate 11, Annex A). The acquisition for this feature would consist of approximately three tracts/ownerships.

Table 2 below demonstrates the acreage, ownerships affected, and proposed estate for the Rock Riffle Structure and Wetland Plantings at Prattville Creek.

Project Feature	#	#Tracts/	Proposed Estate
	Acres	Ownerships	
Prattville Creek – Rock Riffle Structure	16.5		Fee
Prattville Creek – Rock Riffle Structure Access	3.5		Perpetual Access Easement
Total	20	3	

Table 2: Real Estate Requirements for Rock Riffle/Wetland Plantings

It is currently anticipated that stone used to construct the riffle structure and armor the banks of the river would be acquired from a local commercial quarry by the construction contractor. No excavation in the project area is anticipated at this time.

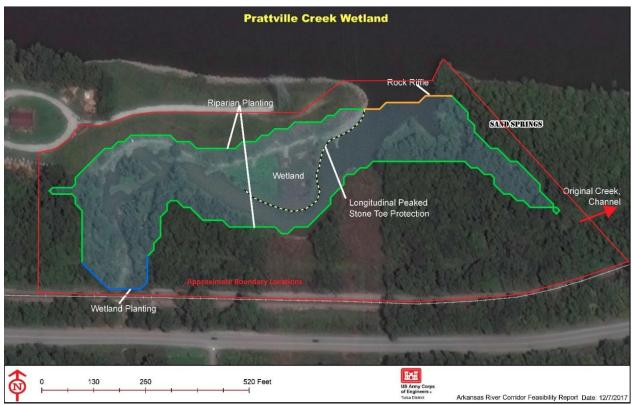


Figure 5: Rock Riffle Structure and Wetland Plantings at Prattville Creek Proposed Boundary

C. Least Tern Island

The Least Tern Island site is located at approximate River Mile 501 and would require an area of approximately five acres in fee (Standard Estate 1, EC 405-1-11) of river bottom real estate. Approximately three additional acres would be required for perpetual access easements (Non-Material Deviation from Standard Estate 11, Annex A) for construction, maintenance, and operation. This acquisition would affect four land owners.

Table 3 below demonstrates the acreage, ownerships affected, and proposed estate for the Least Tern Island.

Project Feature	#	#Tracts/	Proposed Estate
	Acres	Ownerships	
Least Tern Island	5		Fee
	3		Perpetual Access Easement
Total	8	4	

Table 3: Real Estate Requirements for Least Tern Island



Figure 6: Least Tern Island

VI. NON-FEDERAL SPONSOR-OWNED LERRDS

The NFS does not own any of the LERRD required for the Recommended Plan.

VII. EXISTING FEDERAL PROJECTS

The nearest Federal land interests are tracts acquired for the construction and operation of a former Keystone Reservoir Re-regulation Dam, which has subsequently been removed. These land interests are not required for this project. Additional Federal project lands in the vicinity, but not required for this project, include the Arkansas River Tulsa County Levee System, Joe Creek Project, Fry Creek Project, and U.S. Department of Transportation funded Interstate 44, State Highway 64, and State Highway 51. In addition, there are restricted Creek Indian lands on the left-descending bank of the river near the City of Jenks, Oklahoma. These lands contain the Creek Nation Hotel, Margaritaville/River Spirit Casinos, and restaurant complex.

The U. S. Fish and Wildlife Service and Oklahoma Department of Wildlife Conservation are supportive of the Recommended Plan. Letters from these agencies announcing their support for the recommended plan are expected once the public review period is complete. The U.S. Army Corps of Engineers supports the Recommended Plan and is participating in its implementation.

VIII. FEDERALLY-OWNED LANDS

The U.S. Government owns approximately 112 acres of fee land at the Old Reregulation Dam site located at River Mile 531. In addition, the U.S. Government owns approximately 1,615 acres of channel improvement easements covering the pool and bank from the Old Reregulation Dam at River Mile 531 upriver to the base of the Keystone Dam.

IX. NAVIGATION SERVITUDE

Navigation servitude is the dominant right of the Government, under the Commerce Clause of the U.S. Constitution, to use, control and regulate the navigable waters of the United States and submerged lands thereunder for various commerce-related purposes including navigation and flood control. Section 10 jurisdiction begins at River Mile 464 on the Arkansas River and applies downstream. The most downstream project feature is the least tern island which is located at River Mile 501.

Federal Navigational Servitude will not be invoked for this project as the nearest reach of navigable waters of the United States is approximately 50 river miles downstream of the project area, near Fort Gibson, Oklahoma, at the confluence of the Arkansas River and the McClellan-Kerr Arkansas River Navigation System. No LERRD are required within any navigable watercourses for this project.

X. INDUCED FLOODING

This project would create additional pools of water and flow; however, this additional water and flow would remain within the existing banks of the river and would not increase the flood elevation or increase downstream flooding. Therefore, no induced flooding is anticipated for this project.

XI. BASELINE COST ESTIMATE

The Chart of Accounts includes lands required for the project (shown in the 01 – Lands and Damages account), as well as Relocations costs, which are the responsibility of the NFS (shown in the 02 – Relocations account). The estimated total cost for Real Estate Acquisition is \$14,870,000. This includes \$13,530.000 for the pool control structure, \$1,000,000 for the Rock Riffle Structure and Wetland Plantings feature, and \$340,000 for the Least Tern Island.

The costs for project features include land payments as well as administrative costs and incidental costs associated with acquiring the real estate interests. As shown on the Chart of Accounts, estimates include condemnation costs for 10% of the fee ownerships near the pool control structure feature. Estimated real estate contingency costs include sufficient funds for any additional condemnation actions or other unanticipated real estate costs. No costs were estimated for relocation assistance. All LERDs costs are based on cost estimates prepared by the District Appraiser in August 2016. Relocations costs of \$217,000 are reflected in the 02-Relocations account. These costs were provided by the Engineering and Construction Division for relocation of three sewer outfalls. See paragraph titled "Utility/Facility Relocation" for additional information.

Chart of Accounts provided on next page.

	1				AMOUNT	CONTINCENCY	TOTAL DDO IFOT
					AMOUNT (ROUNDED)	(ROUNDED)	TOTAL PROJECT LERRD COST
			CONTINGENCY	PROJECT COST	(ROUNDED)	(ROUNDED)	EERRD COST
01 LAN	NDS AND DAMAGES		CONTINGENCT	TROSECT CCCT	\$11,360,000.00	\$2,270,000.00	\$13,821,000.00
					, ,,	, , .,	, ,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	RAL FEATURES						
•	sumes 125 Landowners NTROL STRUCTURE				\$10,280,000	\$2,000,000	\$40,000 00¢
	QUISITIONS				\$ 10,280,000	\$2,060,000	\$12,330,000
	NON-FEDERAL SPONSOR (NFS)	\$1,462,500	\$292,500	\$1,755,000			
	VIEW OF NFS	\$675,000	\$135,000	\$810,000			
CO	NDEMNATIONS						
	NFS .	\$162,500	\$32,500	\$195,000			
	VIEW OF NFS	\$75,000	\$15,000	\$90,000			
ΔΡΙ	PRAISAL						
	NFS	\$500,000	\$100,000	\$600,000			
	VIEW OF NFS	\$250,000	\$50,000	\$300,000			
ы	91-646 ASSISTANCE	\$0	\$0	\$0			
	NFS	φυ	40	ΨΟ			
	AL ESTATE PAYMENTS ND PAYMENTS						
	NFS	\$8,152,000	\$1,630,400	\$9,782,400			
		\$5,102,500	ψ 1,000, 1 00	Ψ3,102,400			
	sumes 3 Landowners				\$220,000	£400,000	\$000.00
PRATVILL	E CREEK QUISITION				\$820,000	\$160,000	\$980,00
	NON-FEDERAL SPONSOR (NFS)	\$45,000	\$9,000	\$54,000			
	VIEW OF NFS	\$12,000	\$2,400	\$14,400			
CO	NDEMNATIONS						
	NFS .	\$0	\$0	\$0			
		**	***	**			
	PRAISAL NFS	\$12,000	\$2,400	\$14,400			
	VIEW OF NFS	\$6,000	\$1,200	\$7,200			
		\$0,000	ψ,,200	ψ1,200			
	91-646 ASSISTANCE	60	60	40			
	NFS	\$0	\$0	\$0			
	AL ESTATE PAYMENTS						
	ND PAYMENTS	#700 000	# 450.000	#040.000			
ВТ	NFS	\$760,000	\$152,000	\$912,000			
•	sumes 4 Landowners						
	RN ISLAND				\$260,000	\$50,000	\$310,00
	QUISITION	\$50,000	642.000	\$70,000			
	NON-FEDERAL SPONSOR (NFS) VIEW OF NFS	\$60,000 \$16,000	\$12,000 \$3,200	\$72,000 \$19,200			
		\$ 10,000	ψ3,200	φ 13,200			
	NDEMNATIONS			40			
\vdash	NFS	\$0	\$0	\$0			
	PRAISAL						
	NFS	\$16,000	\$3,200	\$19,200			
	VIEW OF NFS	\$8,000	\$1,600	\$9,600			
	91-646 ASSISTANCE						
BY	NFS	\$0	\$0	\$0			
REA	AL ESTATE PAYMENTS						
	ND PAYMENTS						
BY	NFS	\$180,000	\$36,000	\$216,000			
	LOCATIONS				\$144,000	\$57,000	\$201,00
	sumes 3 outfalls						
	LOCATIONS	\$144,000	\$56,160	\$200,160			
RE	VIEW OF NFS	\$12,000	\$4,680	\$16,680			
Q1 IE	BTOTAL (NON-FED ADMIN COST)	\$2,709,600					
	BTOTAL (NON-FED ADMIN COST) BTOTAL (FED ADMIN COST)	\$2,709,600					
	TAL RE INTEREST	\$10,910,400					
	TAL NFS CREDITABLE LERD (W/O RELOCATIONS)	\$13,620,000					
	LOCATIONS	\$201,000					
TOT	TAL NFS CREDITABLE LERRD	\$13,821,000	*Does not include	Federal Admin Cost.			

XII. PUBLIC LAW 91-646, RELOCATION ASSISTANCE BENEFITS

Our preliminary determination is that no families, farms, or business interests will be impacted by the proposed project; therefore, no relocation assistance will be required.

XIII. MINERAL ACTIVITY

Although there are oil and gas wells within the study area, there are no active oil or gas wells within the recommended plan alignment. In addition, there are commercial sand mining operations located upstream of the Least Tern Island sites. There was a minor concern that sand mining interests could be impacted in the river. However, through our research, it was determined that there are no current or inactive mining permits located within the project feature areas.

The recommended fee estate for portions of all three project features will result in acquisition of all mineral interests owned by the surface owner. However, if it is later determined that the minerals are owned by 3rd parties, those mineral rights will be subordinated. The cost for the subordination of these rights is covered within the contingency estimates included in the baseline cost estimate.

The access easement and flowage easement estates required for the project will have no impact on mineral rights and the NFS will not acquire mineral rights to any of these LERRD.

XIV. NON-FEDERAL SPONSOR ASSESSMENT

The NFS has the authority to acquire by negotiation or condemnation as well as "quick take" authority, to hold land titles, and will be responsible for all Project LERRD in accordance with applicable Federal legal requirements. USACE will verify that the appropriate real estate laws and policies are followed, as well as the verification that the appropriate lands and estates are acquired. An Assessment of the Non-Federal Sponsor's Real Estate Acquisition Capability has been completed and is attached hereto and incorporated herein by reference as Annex B. Tulsa County has been found to be highly capable of performing acquisition of the LERRDS required for the project.

XV. ZONING ORDINANCES

No zoning ordinance issues have been identified by the City or County of Tulsa in meetings involving this project. If identified in the future, it would be the NFS's responsibility to resolve them.

XVI. ACQUISITION SCHEDULE

We recommend a real estate acquisition schedule of a minimum of two and a half years from initiation of acquisition activities, depending on resources and manpower availability. This schedule would be expected to extend up to two years for condemnation procedures or where significant utility/facility relocation issues are involved. Quick Take authority is available in Oklahoma if condemnation is required for any interest to determine either value or where complex and indeterminate ownership issues are involved.

The following Table 4 is the acquisition schedule which is based on the premise that the Project will impact approximately 125 landowners for the Pool Control Structure, three landowners for the Rock Riffle Structure and Wetland Plantings at Prattville Creek feature, and four landowners for the Least Tern Island.

	MONTHS	MONTHS CUMULATIVE
Survey/Legal Descriptions/Mapping	3	3
Preliminary Title/Appraisals	6	9
Negotiations	12	21
Closing	12	30

Table 4: Acquisition Schedule

NOTES:

- 1. Times are based upon average time for acquisition actions.
- 2. Condemnation actions (which may require more time) are not included in the above values.

Should Eminent Domain Proceedings be required an additional year would be added to the acquisition schedule, unless quick-take authority is utilized.

XVII. UTILITY/FACILITY RELOCATION

Relocation data is collected and detailed by the Engineering & Construction Division. Within the project area there are three major interstates along with a dense network of utilities, including distribution systems for electricity, water, and natural gas. In addition, a railroad corridor parallels the entire southern/western side of the river (BNSF Railway/Midland Valley/Missouri Pacific), while a rail spur parallels the northern bank of the river from Sand Springs, Oklahoma, downstream to tie in to a rail corridor that generally follows I-244. As described in the main report, there are numerous power transmission lines and oil/gas pipelines which traverse the area supporting corresponding operations along the river. This includes a gas pipeline that crosses the river within the project area approximately two miles west of the Highway 97 Bridge, while a large electrical transmission line crosses the river just east of the bridge near the confluence of Prattville Creek.

As detailed in the Feasibility Report, the Recommended Plan would impact three storm sewer outfalls that have invert elevations falling below the proposed pool elevation of 638.00. Much of the bank area of has been immersed on a regular basis due to the cyclical nature of flows and releases from Keystone Dam. Numerous storm sewer outfalls that discharge into the river have experienced immersion. The current recommended remedy is to retrofit the three outfalls with inverts below the pool elevation with supplemental riprap to provide a stable riverbank for outfall support and to prevent erosion or under mining of the outfall.

The balance of the construction and operation would not affect the existing wastewater treatment plants, gas pipelines nor the existing PSO electrical transmission corridor crossing the river just east of the bridge near the confluence of Prattville Creek. The wetland plantings associated with the measures at Prattville Creek would generally be under 15 feet in height at maturity to limit the potential for vegetation to interfere with the operation of the overhead line. As a result, while there would be a short-term minor negative effect on utilities and long-term impacts would be negligible.

"ANY CONCLUSION OR CATEGORIZATION CONTAINED IN THIS REPORT THAT AN ITEM IS A UTILITY OR FACILITY RELOCATION TO BE PERFORMED BY THE NON-FEDERAL SPONSOR AS PART OF ITS LERRD RESPONSIBILITIES IS PRELIMINARY ONLY. THE GOVERNMENT WILL MAKE A FINAL DETERMINATION OF THE RELOCATIONS NECESSARY FOR THE CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE PROJECT AND FACILITIES."

XVIII. HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)

The site and surrounding vicinity of the pool control structure have a large number of known and high potential HTRW sites, some of which have been partially removed, covered, or abandoned in place, and many of which are on the Superfund National Priority List. These contaminated areas are located on both banks, but predominantly on the left descending bank of the river. The Recommended Plan could directly affect the Sand Springs Petrochemical Complex, which is located approximately 0.25 miles downstream of the proposed pool structure location. This site was designated a Superfund site in 1986 and was removed from the National Priority List in 2000. While there is a low potential to encounter previously undiscovered hazardous waste through construction excavation, as a precaution, the NFS would conduct an environmental site investigation as part of the proposed action to confirm that no undiscovered hazardous waste sources exist in proximity to the construction area. This issue is extensively covered in Appendix D: Hazardous Toxic and Radiologic Waste (HTRW) of the Main Report.

XIX. LANDOWNER ATTITUDE

Voters in Tulsa County overwhelmingly approved this project in April 2016. A subsequent public meeting was held in the study area on February 27, 2017, with no

significant opposition. The local community, neighborhood residents and other public stakeholders appear to be supportive of the proposed project.

XX. NON-FEDERAL SPONSOR RISK NOTIFICATION (EARLY ACQUISITION)

In accordance with the requirements of ER 405-1-12, Chapter 12, Real Estate Roles & Responsibilities for Civil Works: Cost-Shared and Full-Federal Projects, the NFS will be advised in writing of the risks (summarized below) associated with advance land acquisition activities prior to the execution of the PPA. A copy of the letter to be sent to the NFS is attached hereto and incorporated herein by reference as Annex C. A summary of risks associated with advance land acquisition activities include, but are not limited to the following:

- Congress may not appropriate funds to construct the proposed project;
- The proposed project may otherwise not be funded, or approved for construction;
- A PPA mutually agreeable to the NFS and the Government may not be executed and implemented;
- The NFS may incur liability and expense by virtue of its ownership of contaminated lands, or interests therein, whether such liability should arise out of local, state, or Federal laws or regulations including liability arising out of CERCLA, as amended;
- The NFS may acquire interests or estates that are later determined by the Government to be inappropriate, insufficient, or otherwise not required for the project;
- The NFS may initially acquire insufficient or excessive real property acreage
 which may result in additional negotiations and/or benefit payments under
 Public Law 91-646, as well as the payment of additional fair market value to
 affected landowners which could have been avoided by delaying acquisition
 until after PPA execution and the Government's notice to commence
 acquisition and performance of LERRD; and
- The NFS may incur costs or expenses in connection with its decision to acquire or perform LERRD in advance of the executed PPA and the Government's notice to proceed which may not be creditable under the provisions of Public Law 99-662 or the PPA.

Prepared By:

Kimberly M. Hackson

Kimberly M. Jackson Chief, Management & Disposal Branch

3/22/18 Date

Reviewed By:

Terry D. Rupe

Chief, Real Estate Real Estate Contracting Officer

ANNEX A - Non-Material Deviation from Standard Estate

PERPETUAL ACCESS EASEMENT

A perpetual non-exclusive and assignable easement for use by Tulsa County, its	;
representatives, agents, and contractors, as an access route and/or right-of-way	in, on,
, , , , , , , , , , , , , , , , , , , ,	and
); together with the right to trim, cut, fell and remove therefrom all trees,	
underbrush, obstructions and other vegetation, structures, or obstacles within the	
of the right-of-way, reserving, however, to the owners, their heirs and assigns, al	
rights and privileges as may be used without interfering with or abridging the righ	
easement hereby acquired, including the right to cross over the right-of-way as a	ccess
to their adjoining land; subject, however, to existing easements for public roads a highways, public utilities, railroads, and pipelines.	ınd
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In accordance with paragraph 12-9 c. of ER 405-1-12, the District Chief of Real Estate may approve a non-standard estate if it serves the intended project purpose, substantially conforms with and does not materially deviate from a corresponding standard estate, and does not increase the costs or potential liability of the Government. The foregoing estate complies with those requirements as it achieves the project purpose in as narrow a manner as practical, and is a minor modification of the standard Road Easement, adding language for a perpetual term and replacing the word "road" with the words "access route" and/or "right of way."

Reviewed by:

Keith S. Francis

Assistant District Counsel

Tulsa District

Approved by:

Terry . Rupe

Chief, Real Estate

Real Estate Contracting Officer

ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

Tulsa County, Oklahoma
Arkansas River Corridor
Draft Feasibility Investigation
Water Resources Development Act (WRDA) 2007
Section 3132

I. Legal Authority

- a. Does the Sponsor have the legal authority to acquire and hold title to real property for project purposes? Yes
- b. Does the Sponsor have the power of eminent domain for this project? Yes
- c. Does the Sponsor have "quick-take" authority for this project? Yes
- d. Are there any of the lands/interests in land required for the project outside the Sponsor's political boundary? No
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the Sponsor cannot condemn? Yes, US Government owned land cannot be condemned. US Government owns fee simple at the old re-reg dam site and channel improvement easements upstream of the dam.

II. Human Resource Requirements

- a. Will the Sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including PL 91-646, as amended? No.
- b. If the answer to II.a. is "Yes", has a reasonable plan been developed to provide such training? Not Applicable
- c. Does the Sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? Yes
- d. Is the Sponsor's projected in-house staffing level sufficient considering its other workload, if any, and the project schedule? Yes
- e. Can the Sponsor obtain contractor support, if required, in a timely fashion? Yes.

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f. Will the sponsor likely request USACE assistance in acquiring real estate?

III. Other Project Variables

- Will the Sponsor's staff be located within reasonable proximity to the project site? Yes
- b. Has the Sponsor approved the project/real estate schedule/milestones? Yes

IV. Overall Assessment

- a. Has the Sponsor performed satisfactorily on other USACE projects? Yes
- b. With regard to this project, the Sponsor is anticipated to be: Fully Capable

V. Coordination

- a. Has this assessment been coordinated with the Sponsor? Yes
- b. Does the Sponsor concur with this assessment? Yes

Prepared by:

Kimberly M Jackson

Chief, Management & Disposal Branch

USACE, Tulsa

Ron Peters

Approved t

Chairman, Tulsa County

Board of County Commissioners



DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, TULSA DISTRICT 2488 EAST 81ST STREET TULSA, OKLAHOMA 74137-4290

DEC 0 8 2017

Real Estate Division Acquisition and Realty Services

SUBJECT: Arkansas River Corridor Ecosystem Restoration Project

Tulsa County Board of County Commissioners Attn: Chairman Ron Peters 500 S. Denver Tulsa, OK 74103

Dear Chairman Peters:

As you are aware, the Arkansas River Corridor Ecosystem Restoration Feasibility Study is currently underway. The report contains preliminary maps and drawings, which may change once the detail design of the project is completed. For this reason, in accordance with Corps of Engineers Regulation 405-1-12, Chapter 12, dated May 1, 1998, we are hereby formally advising you of the risks associated with acquisition of real estate rights prior to the signing of the Project Partnership Agreement (PPA) and receiving a request from our agency for the right-of-entry for construction.

Although advance acquisition of real estate by a Non-Federal Sponsor (NFS) is acceptable, it is my responsibility to advise you of the risks associated with advance acquisition for a proposed Federal cost-shared project. The NFS will assume full and sole responsibility for any and all costs, responsibility, or liability arising out of such efforts. The risks associated with advance acquisition include, but may not be limited to the following:

- (1) Congress may not appropriate funds to construct the proposed project;
- (2) The proposed project may otherwise not be funded, or approved for construction;
- (3) A PPA mutually agreeable to the NFS and the Government may not be executed and implemented;
- (4) The NFS may incur liability and expense by virtue of its ownership of contaminated lands, or interest therein, whether such liability should arise out of local, state, or Federal laws or regulations including liability arising out of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended.
- (5) The NFS may acquire interests or estates that are later determined by the Government to be inappropriate, insufficient, or otherwise not required for the project;

- (6) The NFS may initially acquire insufficient or excessive real property acreage which may result in additional negotiations and/or benefit payments under Public Law 91-646, as well as the payment of additional fair market value to affected landowners which could have been avoided by delaying acquisition until after PPA execution and the Government's notice to commence acquisition and performance of LERRD; and
- (7) The NFS may incur costs or expenses in connection with its decision to acquire or perform LERRD in advance of the executed PPA and the Government's notice to proceed which may not be creditable under the provisions of Public Law 99-662 or the PPA.

However, should you decide to proceed with acquisition of real estate interests, you are hereby notified that acquisition activities must conform to Public Law 91-646, The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The Uniform Act describes the rights of landowners impacted by a Federally-funded project and the responsibilities of government agencies performing acquisition of real estate interests for such projects.

Furthermore, in order to ensure that you receive the maximum possible credit once the project alignment is finalized, we suggest that you keep records of the administrative costs associated with any advance land purchases. For lands or easements purchased within a five-year period preceding the effective date of a PPA, the value of the real property interests will also include the documented incidental costs of acquiring such interests, as determined by the Government to be reasonable. Administrative or incidental costs include, but are not limited to: closing and title costs, appraisal costs, survey costs, attorney's fees, mapping costs and relocation assistance benefit payments.

If you have any questions regarding the acquisition and crediting process, please call Mr. Mike Love, Chief, Acquisition and Realty Services Branch at (918) 669-4387.

Sincerely.

Terry D. Rupe Chief, Real Estate

Real Estate Contracting Officer

24 ANNEX C

From: Gaylon Pinc

To: Love, Michael S Sr CIV USARMY CESWT (US)
Cc: Parrish, Nancy A CIV USARMY USACE (US)

Subject: [Non-DoD Source] FW: Sand Spring Low Water Dam wetland plantings and PSO

Date: Tuesday, March 27, 2018 10:42:23 AM

Attachments: <u>image001.png</u>

Mike and Nancy,

I discussed this matter with Tulsa County, and as I suspected they are willing to replace dead plantings that are cause be PSO activity in the Prattville wetland planting area. Please see the email response below from the Tulsa County Board of County Commissioners Chief Deputy. Please accept this as the NFS's positive response to this issue. Thank you,

Gaylon Pinc, P.E. Owner / Sr. Environmental Program Manager PMg – Program Management Group, LLC 601 S. Boulder Ave., Suite 1200 Tulsa, OK 74119

918.582.7595 phone 918.344.9400 mobile ggpinc@pmgtulsa.com Blockedwww.pmgtulsa.com

From: John Fothergill < jfothergill@tulsacounty.org>

Sent: Tuesday, March 27, 2018 9:52 AM **To:** Gaylon Pinc <ggpinc@pmgtulsa.com>

Subject: RE: Sand Spring Low Water Dam wetland plantings and PSO

Gaylon,

Tulsa County is prepared to repair or replace 100% of all plantings in the AEP/PSO easements that are disturbed by AEP/PSO.

Thank you,

John

John M. Fothergill Chief Deputy County Commissioner, District 2 500 South Denver Tulsa, Oklahoma 74103 O: 918.596.5018

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C: 918.688.2323

E: jfothergill@tulsacounty.org



From: Gaylon Pinc [mailto:ggpinc@pmgtulsa.com]

Sent: Thursday, March 22, 2018 4:12 PM

To: John Fothergill

Subject: Sand Spring Low Water Dam wetland plantings and PSO

John.

I received an email from the Corps this week needing to resolve another issue about the Feasibility Study. This one is pretty easy, I think. It pertains to the wetland plantings that are proposed for the Prattville Creek confluence area on the south bank of the river, east of the FFA/4-H livestock barns. As you know PSO has two transmission lines with easements that cross the river in that area, and the Corps' Feasibility Report reviewers have expressed concern that if PSO had to work in that area that they might damage or kill some of our wetland plantings and would the NFS (Tulsa County) agree to replace them in the future if that were to happen. The total cost of the plantings is relatively low, in the \$50K area or less, and their easement language states that PSO can remove trees, but does not mention shrubs and small plantings. I have attached copies of the easements for those two lines for your review. One easement requires PSO to replace damaged vegetation, etc. due to their work, but the other one does not.

The question from the USACE reviewer in their Real Estate Division is as follows:

"Page 6: It appears that a portion of the project features, i.e. riparian and wetland plantings are directly beneath the PSO towers with riprap protection and will require an acquisition from the PSO. The report discusses acquiring fee subject to the pre-existing rights of PSO and further indicates the plantings will not interfere with the PSO use. However, the report fails to address what existing rights the PSO has and how the Government/NFS will be able to ensure protection of the federal project features from the PSO use. For example, in a SWF project with a similar fact scenario, the power company's easement allowed them to add additional lines and move their lines all around within their easement boundaries as necessary. If the PSO easement is similar, and you do not subordinate their rights, how can you ensure the plantings will not be destroyed? PSO would have no obligation to re-plant unless their rights are subordinate to the project rights. Is the NFS willing to repair and restore at 100% their expense every time this comes up? Is the federal government willing to risk the project feature benefits and the construction investment in this manner? In the case of the SWF project, we had to acquire a very non-standard estate that took a lot of time to resolve."

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This is a very low risk issue in my opinion, as the last work PSO did there was to install the rock toe protection and rock veins on that point less than 10 years ago. Their towers are either on high ground or in the middle of the river, so they should not need to get into the planting areas. So, I believe Tulsa County needs to agree to replant anything damaged by future PSO construction, as this would be a relatively low cost item. Otherwise, this could significantly delay the approval process as we would have to modify the PSO easement language or resolve it through other legal means. However, I need to get 'your' concurrence before responding to USACE about this. Please review and let me know how we need to proceed to resolve this one and avoid this potential delay. Thanks,

Gaylon Pinc, P.E.
Owner / Sr. Environmental Program Manager
PMg – Program Management Group, LLC
601 S. Boulder Ave., Suite 1200
Tulsa, OK 74119

918.582.7595 phone 918.344.9400 mobile ggpinc@pmgtulsa.com Blockedwww.pmgtulsa.com

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