

ARKANSAS RIVER CORRIDOR

Appendix I: Correspondent and Recipient List

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 two federally threatened bird species, the Piping Plover (*Charadrius melodus*) and the Red Knot (*Calidris canutus rufa*) 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 also play vital roles in supporting the continued provision of many of those multi-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 multi-purposes have significantly degraded the riverine ecosystem structure, function, and dynamic processes below Keystone Dam on the Arkansas River within Tulsa County, Oklahoma.

Stage of Planning Process

This is a feasibility study. A planning Charette was conducted in October 2013, and an Alternatives Milestone Meeting was completed in September 2015. The study is in the Alternative Formulation and Analysis Phase. Utilizing a reasonable level of detail, the PDT has analyzed, compared, and evaluated the array of alternatives to identify a Tentatively Selected Plan for consideration by the Vertical Team.

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.

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.



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

August 26, 2016

Public Notice
Arkansas River Ecosystem Restoration Study, Tulsa County, Oklahoma

The U.S. Army Corps of Engineers, Tulsa District (Corps), in partnership with Tulsa County, is preparing an Integrated Feasibility Report and Environmental Assessment (EA) for the Arkansas River Ecosystem Restoration Study (Study) in Tulsa County, Oklahoma. Authorized by Congress in Section 3132 of the Water Resources Development Act of 2007, the study seeks to identify and evaluate measures to restore riverine and riparian ecological functions in the Arkansas River Corridor below Keystone Dam as identified in the 2005 Arkansas River Corridor Master Plan. Enclosed is a map of the study area.

Widely fluctuating flows associated with hydropower releases from Keystone dam have resulted in inadequate, inconsistent flows, scouring and lack of deposition contributing to the overall degradation of the Arkansas River below the dam. Several structural and non-structural ecosystem restoration measures are currently being considered as part of the on-going study. These measures include, but are not limited to, a low water dam / pooling structure, rock riffle structures, riparian plantings, and least tern islands. An EA, pursuant to Section 102 of the National Environmental Policy Act (NEPA) as implemented by the regulations promulgated by the Council on Environmental Quality (40 Code of Federal Regulations Parts 1500-1508 and USACE Engineering Regulation 200-2-2), will be prepared to describe the project alternatives and the affected environment, as well as analyze the potential direct, indirect, and cumulative environmental effects of the action alternatives.

Our office would like to solicit any input you may have within the proposed study area to assist us as we progress through the NEPA process. We look forward to receiving your comments as we move forward. Please address any comments to Mr. Charles McGregor, Jr., Chief, Inland & Reimbursable Section, Regional Planning and Environmental Center, P.O. Box 17300, Fort Worth, Texas 76102-0300 or Charles.McGregor@usace.army.mil. Thank you for your interest and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Sims".

Douglas Sims
Chief, Environmental Compliance Branch
Regional Planning and Environmental Center

Enclosure



U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region, Airports Division
Arkansas/Oklahoma Airports District Office

FAA-ASW-630E
10101 Hillwood Parkway
Fort Worth, TX 76177-4298

September 8, 2016

Mr. Charles McGregor, Jr.
Chief, Inland & Reimbursable Section
Regional Planning and Environmental Center
P.O. Box 17300
Fort Worth, TX 76102-0300

VIA EMAIL

Re: Arkansas River Ecosystem Restoration Study, Tulsa County, OK

Dear Mr. McGregor,

The Federal Aviation Administration (FAA) reviewed the public notice submitted by the United States Army Corps of Engineers (USACE) for the proposed Arkansas River Ecosystem Restoration Study in Tulsa County, OK. The stated purpose of the study is to identify and evaluate measures to restore riverine and riparian ecological functions in the Arkansas River Corridor below Keystone Dam.

Four sites being evaluated are stated in an email to me from David Gade, (David.Gade@usace.army.mil) dated August 25, 2016 including the following:

- 1) A pool structure in the Arkansas River channel at one of two locations, either just upstream of, or downstream of the Highway 97 Bridge over the Arkansas River near Sand Springs, OK
- 2) Wetland development at the Prattville Creek confluence with the Arkansas River
- 3) Wetland and slackwater development just upstream of the I-44 Bridge over the Arkansas River on the left bank of the river
- 4) A newly developed Least Tern island nesting habitat within the Arkansas River channel just south of the Indian Springs Sports Complex, Broken Arrow, OK.

Three airports within the National Plan of Integrated Airport Systems (NPIAS) are located in the Tulsa Metropolitan Area. They are William R. Pogue Municipal Airport (OWP) in Sand Springs, Tulsa International Airport (TUL) and Richard Lloyd Jones Jr. Airport (RVS) also known as Riverside Airport. FAA has reviewed each site listed above and their proximity to the three NPIAS airports in the Tulsa Metropolitan Area.

SITE 1: Vicinity of Highway 97 Bridge over the Arkansas River

The centerpoint of the Highway 97 bridge is approximately 4.0 miles from the centerpoint of Runway 17/35 at OWP. Either side of the bridge is located within Perimeter C, as defined in Advisory Circular (AC) 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports*. Perimeter C includes the air operations area (AOA) between 10,000 feet and 5 miles within which hazardous wildlife attractants should be avoided, eliminated or mitigated to protect approach, departure and circling airspace.

The centerpoint of the Highway 97 bridge is approximately 13.2 miles from the centerpoint of Runway 36L/18R at TUL. This is outside Perimeter C as defined in AC 150/5200-33B.

The centerpoint of the Highway 97 bridge is approximately 9.4 miles from the centerpoint of Runway 1L/19R at RVS. This is outside Perimeter C as defined in AC 150/5200-33B.

SITE 2: Confluence of Prattville Creek with the Arkansas River

The confluence of Prattville Creek and the Arkansas River is approximately 4.4 miles from the centerpoint of Runway 17/35 at OWP. This is located within Perimeter C, as defined in AC 150/5200-33B. Perimeter C includes the AOA between 10,000 feet and 5 miles within which hazardous wildlife attractants should be avoided, eliminated or mitigated to protect approach, departure and circling airspace.

The confluence of Prattville Creek and the Arkansas River is approximately 12.8 miles from the centerpoint of Runway 36L/18R at TUL. This is outside Perimeter C as defined in AC 150/5200-33B.

The confluence of Prattville Creek and the Arkansas River is approximately 8.9 miles from the centerpoint of Runway 1L/19R at RVS. This is outside Perimeter C as defined in AC 150/5200-33B.

SITE 3: Left bank of the Arkansas River upstream of the Interstate 44 Bridge

The left bank of the Arkansas River upstream of the Interstate 44 Bridge is approximately 10.6 miles from the centerpoint of Runway 17/35 at OWP. This is outside Perimeter C as defined in AC 150/5200-33B.

The left bank of the Arkansas River upstream of the Interstate 44 Bridge is approximately 8.9 miles from the centerpoint of Runway 36L/18R at TUL. This is outside Perimeter C as defined in AC 150/5200-33B.

The left bank of the Arkansas River upstream of the Interstate 44 Bridge is approximately 3.6 miles from the centerpoint of Runway 1L/19R at RVS. This is located within Perimeter C, as defined in AC 150/5200-33B. Perimeter C includes the AOA between 10,000 feet and 5 miles within which hazardous wildlife attractants should be avoided, eliminated or mitigated to protect approach, departure and circling airspace.

SITE 4: Arkansas River channel south of Indian Springs Sports Complex, Broken Arrow, OK

The Arkansas River channel south of Indian Springs Sports Complex is approximately 24.2 miles from the centerpoint of Runway 17/35 at OWP. This is outside Perimeter C as defined in AC 150/5200-33B.

The Arkansas River channel south of Indian Springs Sports Complex is approximately 16.9 miles from the centerpoint of Runway 36R/18L at TUL. This is outside Perimeter C as defined in AC 150/5200-33B.

The Arkansas River channel south of Indian Springs Sports Complex is approximately 11.2 miles from the centerpoint of Runway 1R/19L at RVS. This is outside Perimeter C as defined in AC 150/5200-33B.

After reviewing the notice and maps, FAA determines that the project as described should not increase aviation wildlife strikes at OWP, RVS or TUL. However, we ask that you contact the airports so as they can make a determination of effect. If you have any questions, concerns or need additional information on this determination, please contact me at (817) 222-5359 or by email at Roberto.Ramos@faa.gov.

Sincerely,



Robb Ramos
Environmental Protection Specialist
Arkansas/Oklahoma Airports District Office ASW-630E
FAA Southwest Region

From: [Stubbs, Kevin](#)
To: [Wadlington, Brandon SWF](#)
Cc: [Daniel Fenner](#); [David Martinez](#)
Subject: [EXTERNAL] Re: Arkansas River Corridor Project
Date: Thursday, August 18, 2016 4:09:24 PM

Brandon, Yes we would support designing a structure that provides releases to enhance downstream flows and minimize the hydropower fluctuations, while still allowing sediment transport, fish passage, and maintains riverine conditions upstream. We look forward to working with you on potential designs.

Kevin Stubbs
Fish and Wildlife Biologist
US Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, Oklahoma 74129-1428
918-382-4516

On Fri, Aug 12, 2016 at 3:29 PM, Wadlington, Brandon SWF <Brandon.Wadlington@usace.army.mil> <<mailto:Brandon.Wadlington@usace.army.mil>> > wrote:

Hi Kevin

Thanks again for taking the time to discuss our restoration efforts on the Arkansas River Corridor Project.

Our objective is to restore and enhance riverine, wetland, and riparian habitat while avoiding any adverse impacts. As we develop our restoration measures, part of our planning process entails identifying and quantifying restoration measure benefits.

An option being considered to improve river flow is the construction of a structure that pools releases from Keystone Dam and release that water at a lower flow rate to extend the period of flow in the river, minimizing the occurrence of low or no river flow conditions.

The challenge with this option is avoiding the creation of a disconnected lacustrine pool above the structure, which cannot be counted as a restoration benefit.

If the design of that structure allowed the upstream pool to function as a riverine pool through sediment transport, fish passage, and connected river flow through the upstream pool would you support USACE capturing the upstream pool area as beneficial riverine habitat?

As part of our ongoing coordination, we'll seek you're input regarding the structure design details to ensure restorative objectives are met.

Brandon Wadlington
Biologist
Coastal Section- Environmental Compliance Branch
Regional Planning and Environmental Center
US Army Corps of Engineers
Office: 817-886-1720
Brandon.Wadlington@usace.army.mil <<mailto:Brandon.Wadlington@usace.army.mil>>

From: [Josh Johnston](#)
To: [Wadlington, Brandon SWF](#)
Subject: Re: [EXTERNAL] Re: Arkansas River Corridor Project
Date: Tuesday, August 16, 2016 3:58:31 PM

Haha, yes, keystone. I guess I had Tenkiller on my mind.

Sent from my iPhone

> On Aug 16, 2016, at 1:55 PM, Wadlington, Brandon SWF <Brandon.Wadlington@usace.army.mil> wrote:

>

> Thanks for support Josh.

>

> To clarify, did you mean Keystone Dam instead of Tenkiller Dam?

>

> Brandon

>

>

> -----Original Message-----

> From: Josh Johnston [<mailto:josh.johnston@odwc.ok.gov>]

> Sent: Sunday, August 14, 2016 10:00 PM

> To: Wadlington, Brandon SWF <Brandon.Wadlington@usace.army.mil>

> Subject: [EXTERNAL] Re: Arkansas River Corridor Project

>

> Brandon,

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> Thanks for calling on Friday to update me on progress, and explain the approach. We (Odwc) had hoped for a way of using Tenkiller dam to meet flow regime needs, but understand that the reality of that is not likely. That being said, we will fully support a structure that provides downstream flows closer to that of the natural flow regime, while maintaining a somewhat riverine habitat above it. I am always happy to help if needed, so call if you need anything.

>

> Thanks,

>

> Josh Johnston

>

> Sent from my iPhone

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>> On Aug 12, 2016, at 3:57 PM, Wadlington, Brandon SWF <Brandon.Wadlington@usace.army.mil> wrote:

>>

>> Hi Josh

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>> Thanks again for taking the time to discuss our restoration efforts on the Arkansas River Corridor Project.

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>> Our objective is to restore and enhance riverine, wetland, and riparian habitat while avoiding any adverse impacts. As we develop our restoration measures, part of our planning process entails identifying and quantifying restoration measure benefits.

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>> An option being considered to improve river flow is the construction of a structure that pools releases from Keystone Dam and release that water at a lower flow rate to extend the period of flow in the river, minimizing the occurrence of low or no river flow conditions.

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>> The challenge with this option is avoiding the creation of a disconnected lacustrine pool above the structure, which cannot be counted as a restoration benefit.

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>> If the design of that structure allowed the upstream pool to function as a riverine pool through sediment transport, fish passage, and connected river flow through the upstream pool would you support USACE capturing the upstream pool area as beneficial riverine habitat?

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>> As part of our ongoing coordination, we'll seek you're input regarding the structure design details to ensure restorative objectives are met.

>>

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>> Brandon Wadlington

>> Biologist

>> Coastal Section- Environmental Compliance Branch

>> Regional Planning and Environmental Center

>> US Army Corps of Engineers

>> Office: 817-886-1720

>> Brandon.Wadlington@usace.army.mil

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Arkansas River Corridor Feasibility Investigation: Coordination meeting between U.S. FWS (Kevin Stubbs USFWS-OK Ecological Services), **ODWC** (Josh Johnston), **and U.S. ACE** (Gene Lilly PEC-PF, Michael Ware SWT-RO, and David Gade PEC-TN).

July 21, 2015 10:00-12:00

Oklahoma Ecological Services Office
9014 E 21st Street, Tulsa

Lilly briefed the group over the status of the project including schedule, authority, 2013 Charette summary, and Future Without (Corps) Project Conditions, assuming locally constructed Low Water Dams (LWDs) at Sand Springs, Jenks/South Tulsa, Bixby, Zink Dam rehabilitation, development of the Gathering Place for Tulsa, and Creek Nation riverfront development.

Lilly indicated present USACE consideration of cooperation in Flood Risk Management (FRM) (Tulsa/West Tulsa levee rehabilitation/H&H Modeling/Evacuation Plan/Warning System/Buy-Out) for inclusion under the current funding authority, awaiting legal opinion and levee assessment conclusions, in addition to Ecosystem Restoration (ER) and Recreation (REC) opportunities.

Given probable future conditions including LWDs, USACE is assessing potential ER/REC measures associated with LWD sites including Interior Least Tern (ILT) islands/habitat, wetlands, stream bank restoration/stabilization, flood plain/riparian zone restoration, trails, and signage. These would be planned/designed to provide ER benefits beyond required mitigation associated with construction of LWDs.

Considering competition for funding of USACE ER efforts, demonstrating national significance is a priority. ILT habitat development/enhancement, as a federally listed endangered species, is envisioned to support national significance. Inclusion of FRM into study with 'high risk' levee status could enhance demonstration of significance.

Both ODWC and USFWS suggested ideal ER would address 'mitigation' of the short/long-term effects of the Keystone Dam operation/power generation on stream flow and sediment transport below the dam. From a native fisheries perspective, LWDs and river lakes "doom" native aquatic habitats. With consideration of LWD design including fish passage, while passage may support adult migration upstream, necessary flow-induced distribution of eggs and non-motile fry back downstream for viability would be inhibited by LWD pooling in multiple locations. If LWDs are operated for benefit of native aquatic species, pools may not be available for desired recreational uses during spawning periods (March – June). Logistics and planning for centralized and coordinated O&M of proposed LWDs was questioned. LWD induced pools would represent 'biological wastelands' relative to native fish species, and would not provide foraging habitat for ILT. Proposed ILT islands with potential to provide benefits likely restricted to upper (Sand Springs LWD - with potential forage upstream including Keystone Lake) and extreme lower (Bixby LWD - with forage zone including open river below the LWD) sites.

Riparian zone restoration is likely to be minimally effective due to sediment-starved flow (bank armoring required) and marginal existing habitat. 'Best Use' of riparian areas may be as flood zone 'park' land without extensive development. With respect to Bald Eagle nesting sites, riparian zone protection and enhancement could provide some benefit. Benefits of wetlands creation adjacent to river not likely to exceed losses incurred from LWD pool construction. Offsite wetlands creation may be necessary to adequately compensate losses.

From the resource agency perspective, the critical element providing ecosystem benefit, given proposed LWD development, would be minimum flow releases (> 100 cfs) from Keystone Dam obtained through allocation from unclaimed storage within the Keystone/Kaw Lake pool(s), alteration of current hydropower generation regime, or retrofitting Keystone Dam with 'miniature' power generation units (=< 1000 cfs). Absent consideration of altered flow release regime from Keystone Dam, critical components to enhance aquatic habitat include reregulation (flow smoothing) potential of a Sand Springs LWD, and refurbishment of Zink Dam for fish passage.

Arkansas River Corridor Feasibility Investigation: Coordination meeting between U.S. FWS (Kevin Stubbs USFWS-OK Ecological Services), **ODWC** (Josh Johnston), **and U.S. ACE** (Gene Lilly, David Gade, Kelly Burks-Copes, Brandon Wadlington, Danny Allen)

May 23, 2016 09:00 – 11:30

Tulsa District Office
1645 S. 101st East Ave.

Lilly reviewed information presented to USFWS and ODWC on Jan. 28, 2016 describing draft final array of alternatives, current project schedule, and a description of information requirements (including environmental benefits analysis) for CE/ICA analysis.

Burks-Copes presented a description and overview of HEP models and application, emphasizing selected HEP species models must match habitat created in the restoration effort.

Burks-Copes led a discussion identifying specific approved HEP species models for application to habitat types proposed to be restored in the Arkansas River Corridor study. Species models previously under consideration included Interior Least Tern, Common Shiner, Paddlefish, and Gizzard Shad. Discussions focused on tern island habitat within the river channel identified the Interior Least Tern (ILT) HEP model as appropriate for use (Stubbs, USFWS).

Discussions of models applicable to aquatic habitat restored through providing some level of minimum flow progressed. Gade indicated initial efforts to select species models attempted to identify 'guilds' representing small (ILT forage) and larger fish. Because the Common Shiner does not occur in the Arkansas River system in OK, the Common Shiner HEP model was eliminated. While Gizzard Shad do occur in the system, HEP model limitations to lacustrine systems for the Gizzard Shad HEP model eliminated this model. The previously identified Paddlefish HEP model was accepted as appropriate for the system. Johnston (ODWC) identified the Walleye HEP model as potentially applicable. After a review of variables included in the riverine model, the Walleye HEP model was accepted as appropriate. Discussions to identify another species, potentially representing habitats occupied by smaller fish species, eventually focused on the Bigmouth Buffalo (Johnston, ODWC). A review of riverine model variables, including water level fluctuation, led to acceptance of the Bigmouth Buffalo HEP model for the system.

A discussion of species models appropriate for evaluation of wetland creation (Prattville Creek) and riparian plantings (Prattville Creek, Cherry Creek mouth, and adjacent to I-44 wing deflectors) identified the Slider Turtle and Red-Winged Blackbird HEP models as applicable for use.

In a general discussion of USACE ecosystem restoration efforts in the Arkansas River Corridor, the word 'mitigation' was mentioned. Lilly and Burks-Copes clearly indicated that USACE ecosystem restoration efforts do not involve mitigation. Both Resource Agency representatives concurred that restoration of some level of minimum flow, through any of the proposed water source alternatives, would provide net benefit to fish and wildlife resources in the Arkansas River Corridor in Tulsa County.

Planned application of the selected HEP models (ILT, Paddlefish, Walleye, Bigmouth Buffalo, Slider Turtle, Red-Winged Blackbird) will require continued interaction with Resource Agency representatives.

From: [Gade, David SWT](#)
To: Roberto.ramos@faa.gov
Subject: Arkansas River Corridor Ecosystem Restoration (Tulsa County, OK)
Date: Thursday, August 25, 2016 4:01:54 PM
Attachments: [FAA MOA 2003.pdf](#)
[Proposed ARC measure locations \(for FAA\).pdf](#)

Roberto,

In compliance with the Memorandum of Agreement between the FAA, USAF, US Army (USACE), USEPA, USFWS, & USDA to address aircraft-wildlife strikes (attached as 'FAA_MOA_2003.pdf'), we wish to coordinate with you with respect to an ecosystem restoration project proposed for the Arkansas River Corridor in Tulsa County Oklahoma. The project area includes the 42-mile Arkansas River Corridor from the Keystone Lake Dam down to the Tulsa/Wagoner County boundary.

At present, measures being evaluated include:

- 1) A pool structure in the Arkansas River channel at one of two potential locations, either just upstream of, or downstream of the Hwy 97 Bridge over the Arkansas River near Sand Springs, OK. The structure will be designed to capture and slowly release peaking hydropower releases from the Keystone Dam. Design features will be incorporated such that the structure will smooth hydropower releases and provide a reasonably consistent minimum discharge (~1,000 cfs) during periods when releases from Keystone Dam are only from hydropower production. The structure will also incorporate features to allow for fish and sediment passage. The structure will pass flood pool releases from the Keystone Dam.
- 2) Wetland development at the Prattville Creek confluence with the Arkansas River. Prattville Creek is a right-bank tributary to the Arkansas River downstream of the Highway 97 Bridge at Sand Springs, Oklahoma. A proposed rock riffle at the current mouth of Prattville Creek would create a 5.34-acre wetland adjacent to the Arkansas River. Additional proposed features include wetland and riparian plantings in a 10 to 15 meter zone around the periphery of the ponded area. Development of this measure would periodically restore some flow to the 'old' Prattville Creek channel which parallels the Arkansas River for about a mile downstream of the current mouth.
- 3) Wetland and slackwater development just upstream of the I-44 Bridge over the Arkansas River on the left bank of the river. Proposed restoration measures include two rock riffles at the mouth of stormwater outfalls to create small wetlands (0.22 and 0.33 acres) adjacent to the Arkansas River, wing deflectors in the Arkansas River to protect the created wetland pools and generate slackwater areas, and restoration plantings around the periphery of the wetland areas.
- 4) A newly developed Least Tern island nesting habitat within the Arkansas River channel just south of the Indian Springs Sports Complex near Broken Arrow, OK. Using placed rock chevrons, an island of up to 5-acres will develop during high, sediment moving flows in the Arkansas River.

Attached is a pdf with simple graphics identifying locations of the features identified/described above.

If you need additional information, please let me know.

Your comments are welcomed and desired.

Thank you.

David Gade
Limnologist
Environmental Compliance Branch
USACE Regional Planning & Environmental Center
Office: 918.669.7579

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name of Project		Federal Agency Involved			
Proposed Land Use		County and State			
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %		Amount of Farmland As Defined in FPPA Acres: %		
Name of Land Evaluation System Used	Name of State or Local Site Assessment System		Date Land Evaluation Returned by NRCS		
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)			
2. Perimeter In Non-urban Use		(10)			
3. Percent Of Site Being Farmed		(20)			
4. Protection Provided By State and Local Government		(20)			
5. Distance From Urban Built-up Area		(15)			
6. Distance To Urban Support Services		(15)			
7. Size Of Present Farm Unit Compared To Average		(10)			
8. Creation Of Non-farmable Farmland		(10)			
9. Availability Of Farm Support Services		(5)			
10. On-Farm Investments		(20)			
11. Effects Of Conversion On Farm Support Services		(10)			
12. Compatibility With Existing Agricultural Use		(10)			
TOTAL SITE ASSESSMENT POINTS		160			
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100			
Total Site Assessment (From Part VI above or local site assessment)		160			
TOTAL POINTS (Total of above 2 lines)		260			
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, <http://fppa.nrcs.usda.gov/lesa/>.
- Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

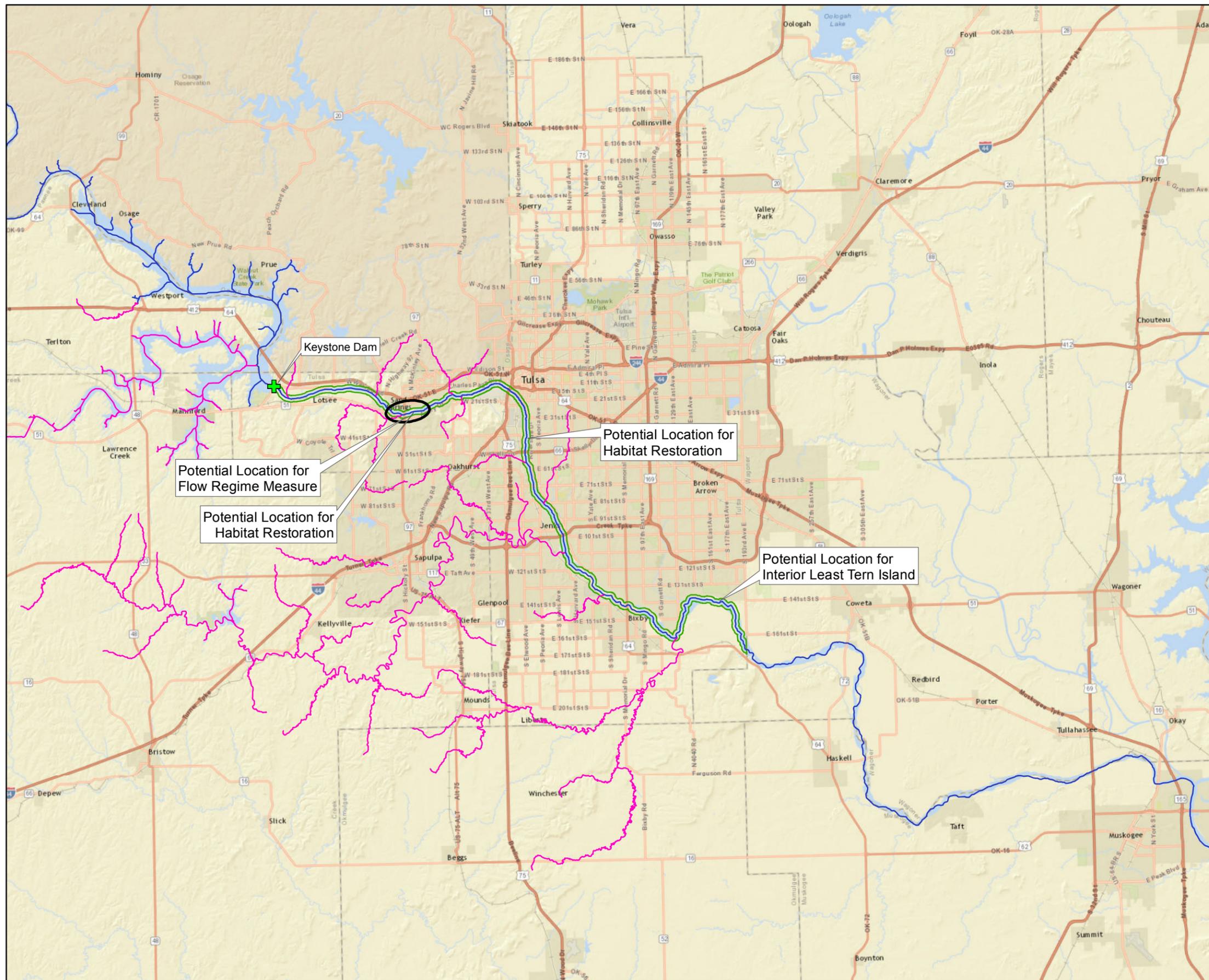
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.

Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.



- LEGEND**
- Potential Location for Flow Regime Measure
 - ⊕ Keystone Dam
 - Arkansas River
 - Named Tributaries
 - ▭ Study Area

Notes:
 1. The Study Area (in green) is a preliminary project boundary that will be adjusted once the effects of the project are better understood.

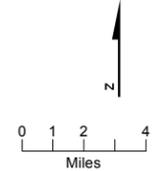
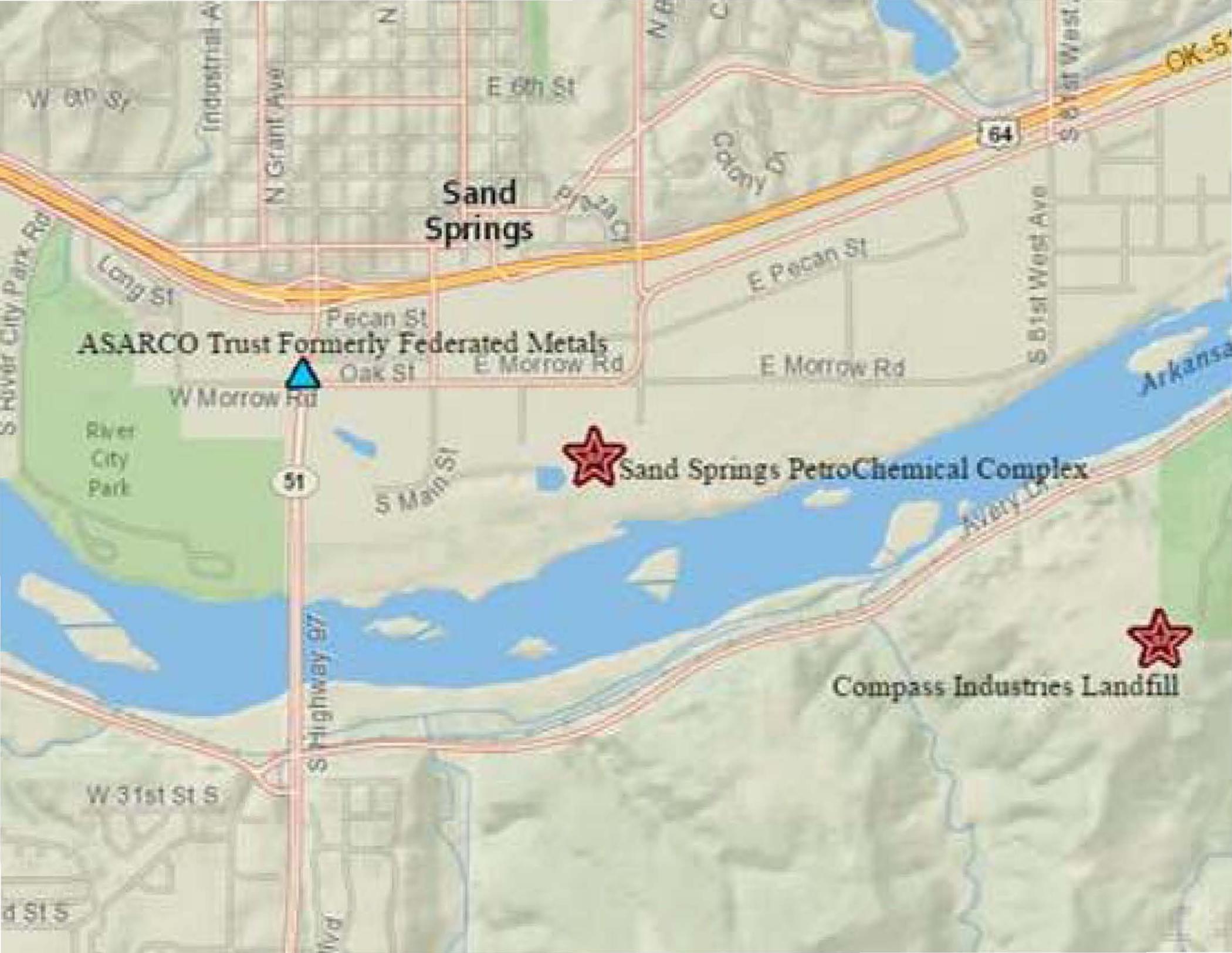


FIGURE 1
Study Area
 Arkansas River Corridor Feasibility Study Environmental Assessment – Cultural and Archeological Resources Report



Sand Springs

ASARCO Trust Formerly Federated Metals

Sand Springs PetroChemical Complex

Compass Industries Landfill

Arkansas River

91

Highway 91

OK-51

Industrial-A

N Grant Ave

E 6th St

Cooney St

S 61st West

S 61st West Ave

Long St

Pecan St

Oak St

E Morrow Rd

E Morrow Rd

W Morrow Rd

River City Park

S Main St

Avoy Dr

W 31st St S

d St S

W 4th St

LIST OF RECIPIENTS- **draft working copy** August 23, 2016

Agency/Entity	Address	Contact	Status/Notes
U.S. Fish and Wildlife Service Oklahoma Ecological Services Field Office	9014 E. 21 st St. Tulsa, OK74129-1428	Ms. Jonna Polk, Team Leader	
Oklahoma Historical Society Oklahoma History Center	800 Nazih Zuhdi Drive Oklahoma City, OK 73105	Dr. Bob Blackburn State Historic Preservation Officer	
Office of Environmental Justice and Tribal Affairs	US EPA Region 6 Mailcode 6RA-DA 1445 Ross Ave Dallas, TX 75202	Dr. Sharon Osowski Morgan Ecologist/Environmental Scientist	
U.S. Environmental Protection Agency	1445 Ross Ave., Suite 1200 Dallas, TX 75202	Mr. Ron Curry Federal Region VI Administrator	
Federal Aviation Administration	Arkansas / Oklahoma Airport District Office 10101 Hillwood Parkway Fort Worth, TX 76117	Mr. Roberto Ramos	
USDA, Natural Resources Conservation Service	100 USDA, Suite 206 Stillwater, OK 74074 2655	Mr. Gary O'Neill State Conservationist	
Oklahoma Department of Wildlife Conservation	1801 N. Lincoln Blvd. Oklahoma City, OK 73105	Mr. Richard Hatcher Director	
Oklahoma Department of Environmental Quality	P.O. Box 1677 Oklahoma City, OK 73101- 1677	Mr. Scott Thompson Executive Director	
ODEQ Water Quality Division	P.O. Box 1677 Oklahoma City, OK 73101- 1677	Ms. Kristi Roy	
ODEQ Water Quality Division	P.O. Box 1677 Oklahoma City, OK 73101- 1677	Ms. Elena Jigoulina	
Oklahoma Water Resources Board	3800 N. Classen Boulevard Oklahoma City, OK 73118	Mr. J.D. Strong Executive Director	
Oklahoma Water Resources Board	3800 N. Classen Boulevard Oklahoma City, OK 73118	Mr. Derek Smithee Chief, Water Quality	
Oklahoma Conservation Commission	2800 N. Lincoln Blvd., Suite 160, Oklahoma City, OK 73105	Mr. Trey Lamb Executive Director	
Oklahoma Conservation Commission	2800 N. Lincoln Blvd., Suite 160 Oklahoma City, OK 73105	Ms. Shanon Phillips Director Water Quality Programs	
Oklahoma Biological Survey	111 E. Chesapeake Street Norman, OK 73019-0575	Mr. Ian H. Butler Oklahoma Natural Heritage Inventory	
University of Oklahoma	111 E. Chesapeake Street Norman, OK 73019-0575	Dr. Amanda Regnier	

Oklahoma Archeological Survey			
Oklahoma Department of Transportation Environmental Programs Division	200 N.E. 21 st Street, Room 3D2a Oklahoma City OK 73105	Mr. Tim Vermillion NEPA Project Manager, Division 4	
Oklahoma Tourism and Recreation Department	120 N. Robinson, 6 th Floor Oklahoma City OK 73102	Ms. Deby Snodgrass Executive Director	
City of Mannford	300 Coonrod Cleveland OK 74020	Mr. Mike Nunneley City Administrator	Applicable?
City of Cleveland	201 N. Broadway Street Cleveland OK 74020	Mr. Elizabeth Smith City Manager	Applicable?
City of Sand Springs	P.O. Box 338 Sand Springs, OK 74063	Ms. Elizabeth Gray City Manager	
City of Oilton	101 West Main Street Oilton, OK 74052	Mr. Patrick Kennedy Mayor	Applicable?
City of Jenks	211 North Elm St. P.O. Box 2007 Jenks, OK 74037	Mike Tinker, City Manager	
City of Tulsa	175 E 2nd St # 15, Tulsa, OK 74103	Mayor's Office	New Mayor elect start Jan. 2017
Alabama Quassarte Tribal Town, Oklahoma	P.O. Box 187 Wetumka, OK 74883	Chief Tarpie Yargee	
City of Bixby	116 W. Needles P.O. Box 70 Bixby, OK 74008	Jared Cottle, City Manager Or John Easton, Mayor	
City of Broken Arrow	220 South First Street Broken Arrow, OK 74012	Michael Spurgeon, City Manager	
Tulsa County Board of Commissioners			
Tulsa Chamber of Commerce			
Kialegee Tribal Town, Oklahoma	P.O. Box 332 Wetumka, OK 74883	Mekko Jeremiah Hobia	
Caddo Nation of Oklahoma	P.O. Box 487 Binger, OK 73009	Kim Penrod	
Cherokee Nation	P.O. Box 948 Tahlequah, OK 74465	Principal Chief Bill Baker	
Kialegee Tribal Town	P.O. Box 332 Wetumka, OK 74883	Jeremiah Hobia	
Muscogee (Creek) Nation, Oklahoma	P.O. Box 580 Okmulgee, OK 74447	Principal Chief George Tigerg	
Osage Nation, Oklahoma	P.O. Box 779 Pawhuska, OK 74056	Principal Chief Geoffrey Standing Bear	
Pawnee Nation Of Oklahoma	P.O. Box 470 Pawnee, OK 74058	President W. Bruce Pratt	
Sac & Fox Nation, Oklahoma	Route 2 Box 246 Stroud, OK 74079	Principal Chief Kay Rhoads	
Seminole Nation Of Oklahoma	P.O. Box 1498 Wewoka, OK 74884	Principal Chief Leonard Harjo	

Thlopthlocco Tribal Town, Oklahoma	P.O. Box 188 Okemah, OK 74859	Charles Coleman	
Wichita and Affiliated Tribes of Oklahoma	P.O. Box 729 Anadarko, OK 73005	President Terri Parton	
United Keetoowak Bank of Cherokees	P.O. Box 746, Tahlequah, OK 74465	Chief Joe Bunch	
Cross Timbers The Harbor Marina	1989 Cross Timbers Lane Mannford, OK 74044		
Keyport Marina	1200 S. Keyport Road Mannford, OK 74044		
Pier 51 Marina	1926 S. Hwy 151 Sand Springs, OK 74063		
Westport Marina	Rt. 3, Box 3-4 Cleveland, OK 74020		
Southwestern Power Administration	One West Third Street Tulsa, OK 74103-3502	Mr. Scott Carpenter Administrator	
Southwestern Power Administration	One West Third Street Tulsa, OK 74103-3502	Ms. Frieda Olsen	
George Kaiser Family Foundation	7030 S. Yale Avenue, Suite 600, Tulsa, OK 74136		
Mr. Clark Miller	109 Craven Dr. Mannford, OK 74044	Mr. Clark Miller	
Mr. Tyler Buttram	130 Birch Mannford, OK 74044	Mr. Tyler Buttram	
Bell Timmons	P.O. Box 1967 Mannford, OK 74044	Bell Timmons	
Mr. Larry Chasteen	P.O. Box 1116 Mannford, OK 74044	Mr. Larry Chasteen	
Mr. William E. Barrett	168 Glendale Circle Mannford, OK 74044	Mr. William E. Barrett	
Willard Walbridge	P.O. Box 521 Oilton, OK 74052	Willard Walbridge	
River Parks Authority	2424 E. 21 st Street, Suite 300, Tulsa OK 74114	Mr. Matt Meyer	
Jimmie D. Copeland	1606 Lakeview Drive Mannford, OK 74044	Jimmie D. Copeland	
Jearld McAfee	308 W. 49 th Street Sand Springs, OK 74063	Jearld McAfee	
Jim Selzen	P.O. Box 952 Jenks, OK 74037	Jim Selzen	
USGS	202 NW 66 th St., Bldg 7, OK 73136	Mr. William Andrews	
INCOG	2 West Second Street, Suite 800, Tulsa, OK 74103	Mr. Vernon Seaman	
INCOG	2 West Second Street, Suite 800, Tulsa, OK 74103	Mr. Rich Brierre	
Sand Spring Home	P.O. Box 278, Sand Springs, OK 74063	Mr. Ron Weese, Trustee	
Levee District #12	1202 East Pecan St., Sand Springs, Oklahoma 74063	Mr. Todd Kilpatrick	



Board of County Commissioners

Tulsa County Administration Bldg.
500 South Denver
Tulsa, Oklahoma 74103-3832
918.596.5015

KAREN KEITH
DISTRICT 2

February 3, 2017

U.S. Army Corps of Engineers, Tulsa District
Attention: Cynthia Kitchens
1645 South 101 East Avenue
Tulsa, Oklahoma 74128

RE: Support of Arkansas River Corridor Feasibility Study Report

Dear Ms. Kitchens,

As you know, Tulsa County has been the non-federal/local sponsor in partnership with the U.S. Army Corps of Engineers (USACE) since the beginning of the Feasibility Study. We have been an active participant in the development of the Feasibility Study and the draft Report currently under review.

We agree with the findings of the Report that confirm the degrading condition of the Arkansas River ecosystem in Tulsa County, primarily due to the operation of Keystone Dam for hydropower and flood control. Tulsa County supports retaining clean hydropower generation at Keystone Dam and certainly supports and commends the USACE for its flood control operations, as it has protected us in Tulsa County for several decades. We also support the recommendations in the Report which propose to improve the daily low flow regime of the river and implement other needed ecosystem restoration measures. We support the implementation of the Recommended Plan as presented in the Report.

Tulsa County and local stakeholders will continue to be involved with the implementation of the Feasibility Study projects and will endeavor to secure the necessary funds for the subsequent phase of implementation. Funding from both the Federal government and local sponsor will be essential for future implementation and the continuance of the projects implementation.

We are excited about the progress being made in the Feasibility Study and how it is consistent with our earlier findings and proposed projects contained in the Arkansas River Corridor Master Plan. We look forward to and support the next phases of this important project.

Sincerely,

Karen Keith, Commissioner
Tulsa County Board of County Commissioners



Tulsa County

Board of County Commissioners

Tulsa County Administration Bldg. • 500 South Denver

Tulsa, Oklahoma 74103-3832 • (918) 596-5015

KAREN KEITH

DISTRICT 2

July 1, 2010

Colonel Teague
District Commander
U.S. Army Corps of Engineers
1645 South 101st East Avenue
Tulsa, OK 74128-4609

Dear Colonel Teague:

RE: Arkansas River Corridor Feasibility Study, Tulsa County, Oklahoma

The Tulsa County Board of County Commissioners (BOCC) is interested in participating as the non-federal sponsor in a feasibility study on the Arkansas River in Tulsa County. Initial reconnaissance studies identified that a feasibility study should be conducted to address problems and opportunities related to flood risk reduction, ecosystem restoration, recreation, and water quality measures identified in the 2005 Arkansas River Corridor Master Plan.

I understand that the Corps of Engineers can conduct a cost-shared feasibility study under the General Investigations Program. I understand that Tulsa County's cost-sharing responsibility during the feasibility phase would be 50 percent, which can be provided in cash and/or as in-kind services and products. I also understand that the preconstruction engineering and design and construction for measures would be cost-shared the appropriate amount for each authority. The local sponsor provides all the lands, easements, rights-of-way, relocations and disposal areas needed for the project as part of their share of the project.

The purpose of this letter is to express the intent of the Tulsa County BOCC to enter into negotiations for the feasibility phase. The Project Management Plan developed during the negotiations will describe the study activities, proposed schedule, and cost of the study. I understand that this letter is not a contractual obligation on the part of either the Corps or Tulsa County BOCC, and either party may discontinue the project development process at any time.

If you have any questions concerning this matter, please contact Mr. Gaylon Pinc, P.E. at Program Management Group at your convenience.

Sincerely,

Karen Keith
Chair, Tulsa County BOCC