U.S. Army Corps of Engineers **SECTION I: BACKGROUND INFORMATION** A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 28-Oct-2014 B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Tulsa District, SWT-2014-00566-JD1 C. PROJECT LOCATION AND BACKGROUND INFORMATION: OK - Oklahoma State: County/parish/borough: Oklahoma City: Oklahoma City Lat: 35.4148 Long: -97.6697 Universal Transverse Mercator Folder UTM List UTM list determined by folder location NAD83 / UTM zone 14N Waters UTM List UTM list determined by waters location • NAD83 / UTM zone 14N

Campbell Creek

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

There "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

APPROVED JURISDICTIONAL DETERMINATION FORM

☐ Office Determination Date: 28-Oct-2014
☐ Field Determination Date(s): ☐ 09-Oct-2014

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION
There "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

1. Waters of the U.S.

Name of nearest waterbody:

a. Indicate presence of waters of U.S. in review area:1

Water Name	Water Type(s) Present
SWT-2014-566-1-jrh	Non-RPWs that flow directly or indirectly into TNWs

Name of nearest Traditional Navigable Water (TNW): Canadian River

Name of watershed or Hydrologic Unit Code (HUC):

D. REVIEW PERFORMED FOR SITE EVALUATION:

b. Identify (estimate) size of waters of the U.S. in the review area:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

Area: (m²) **Linear:** 152 (m)

c. Limits (boundaries) of jurisdiction:
based on: Established by OHWM.

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

- B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):
- 1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 135 acres
Drainage area: 114 acres
Average annual rainfall: 31.8 inches
Average annual snowfall: 8 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

Project waters are 30 (or more) river miles from TNW.

Project waters are 5-10 river miles from RPW.

Project Waters are 30 (or more) aerial (straight) miles from TNW.

Project waters are 2-5 aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

NA

Identify flow route to TNW:5

Flows into an unnamed tributary then to another unnamed tributary where it becomes a second order stream. It then flows into Campbell Creek an on to the Canadian River. The Canadian River then flows to the confluence of Eufaula Lake.

Tributary Stream Order, if known:

Order	Tributary Name
1	SWT-2014-566-1-jrh

(b) General Tributary Characteristics:

Tributary is:

Tributary Name Natural Artificial E		Explain	Manipulated	Explain	
SWT-2014-566-1- jrh	-	-	-	x	Prior to 2004 this property and the adjacent lands were utilized primarily for agriculture purposes. There is evidence of terracing. Surrounding properties have been developed and altered the hydrologic regime upstream and downstream.

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes		
SWT-2014-566-1-jrh	10	3	2:1		

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
SWT-2014-566-1-jrh	Х	-	-	-	-	-	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
SWT-2014-566-1- jrh	Tributary has been channelized upstream. Approximately 620 feet of the northern section has bed and banks then it recedes to sheet flow for approximately 430 feet. Then again transforms back to bed and bank for another 110 feet before it exits the property. This is due to the land uses and practices performed on the subject property and this stretch of stream channel.	no run/riffle/pools exist on the property	Relatively straight	2

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
SWT-2014-566-1- jrh	Ephemeral flow		stream exhibits confined and descrete flows in the upper portion for approximatly 620 feet then for 430 feet the stream exhibits sheet flow, then the stream begins to produce bed and banks and confined descrete flows for 110 feet before it exits the property.	-

Surface Flow is:

Tributary Nar	ne Surface Flow	Characteristics
SWT-2014-566-		altered stream reach has transformed the stream to both sheet flow and confined flows. If left alone the stream would eventually reclaim the bed and banks and in turn become more confined
jrh	confined	again.

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
SWT-2014-566-1-jrh	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
SWT-2014-566-1- jrh	Х	Х	Х	OHWM dissapears for approximately 430 feet. This is due to land use practices. Likely farming and ranching that has occured in the past has altered the stream to exhibit this characteristic. An OHWM can be clearly observed in the upstream reaches.

Tributaries with OHWM⁶ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted\Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other	
SWT-2014-566-1- jrh	Х	Х	-	-	-	Χ	-	-	-	-	Х	-	-	-	-	-	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by: Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality;general watershed characteristics, etc.).

Tributary Na	ne Explain	Identify specific pollutants, if known
SWT-2014-566 jrh	1- Watershed is becoming more developed. Therefore upstream and downstream hydrology is being manipulated. It is expected that the water quality will continue to degrade and that nitrogen and petro chemicals will increase as hardened surfaces increase and infiltration of water decreases.	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
SWT-2014-566-1-jrh	X	Very narrow approximately 10-15 foot cooridor is supported. Primarily consiting of succesion salix nigra sapplings.	-	-	-

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is:

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Findings for: SWT-2014-566-1-jrh

This stream channel and its intact floodplain function to absorb water from storm events and slow the delivery of runoff water to downstream waters. In addition, the intact grassland in the riparian corridor functions to trap sediments, nutrients, and pollutants and reduce their transport to downstream TNWs. Some of the nutrients are utilized in primary production in the riparian corridor and some contaminants are taken up in the vegetation. Nitrogen uptake and conversion in a watershed is greatest in small streams where there is a large benthic surface available for biological activity relative to the small volume of water in the stream. The potential for nitrogen uptake and conversion decreases downstream as the volume of water grows larger relative to the available benthic surfaces. This nutrient uptake and conversion in the small stream functions to reduce the levels of nutrients and contaminants in downstream RPWs and TNWs. Without this channel and riparian floodplain, runoff from storm events would drain off of the landscape quicker and be delivered downstream sooner producing higher peak and shorter duration storm flows, which is a contributing factor to flooding at points downstream.

Furthermore, in view of reasonably anticipated urban development in this reach, the quantity of nutrients and contaminants capable of being delivered to the waterway is expected to increase. Additional sources of nutrients and contaminants in this reach could include leached petrochemicals from asphalt surfaces, automotive oil and grease residues washing from streets and parking lots, excess nutrients from over-treated lawns, nutrients and contaminants from storage sites, wastewater, sanitary sewer leakage, etc. With a reduced capacity to utilize or uptake these nutrients and contaminants within this reach, these pollutants would be transperded obwnstream waters, underly reaching TNWs. Furthermore, when viewed in aggregate with cumulative function provided by all streams of this size in the TNW watershed, it is reasonable to conclude these effects would be transferred downstream to TNWs.

The unnamed tributary to Campbell Creek has more than a speculative or insubstantial effect on the chemical, physical, and/or biological, integrity of the downstream TNW. Based on the preponderance of evidence, onsite and in office review, the unnamed tributary is a jurisdictional water of the United States. There were no jurisdictional wetlands observed within the review area.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable

3. Non-RPWs that flow directly or indirectly into TNWs:8

Not Applicable

Provide estimates for jurisdictional waters in the review area:

Tributary Name	Туре	Size (Linear) (m)	Size (Area) (m²)
SWT-2014-566-1-jrh	Non-RPWs that flow directly or indirectly into TNWs	353.568	-
Total:		353.568	0

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

lot Applicable

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide (estimate	es for	jurisd	ictional	wetlands	s in t	the rev	iew:	area
			-						

Not Applicable.

7. Impoundments of jurisdictional waters:9

Not Applicable

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS: 10

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Reg	ional Supplements
Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:	
Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based soley on the "Migratory Bird Rule" (MBR):	
Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):	
Other (Explain):	

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Not Applicable.

1	SECTION IV: DATA SOURCES.							
	A. SUPPORTING DATA. Data reviewed for JD (listed items shall be included in case file and, where checked and requested, appropriately reference below):							
	Data Reviewed	Source Label	Source Description					
1	U.S. Geological Survey map(s).	Mustang, Oklahoma	USGS Quadrangular Mapping (7.5 minute)					
ı	Photographs	-	-	þ				
	Aerial	Google Pro	Aerial Photography going back to 1994.					
-								

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

¹-Boxes checked below shall be supported by completing the appropriate sections in Section III below.

^{2.} For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

 $^{^{3}\}text{-Supporting documentation is presented in Section III.F.}$

⁴⁻Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵⁻Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

⁶⁻A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

7-Ibid.

⁸⁻See Footnote #3.

 $^{^{9}}$ -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰⁻Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.