

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD)** August 15, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER** Los Angeles District, File No. Pending

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Drainage Feature** **A (Coconino Wash)**

State: AZ County/Parish/Borough: Coconino County City: Tusayan

Center coordinates of site: Lat. 35.9664°N Long. -112.1140°W

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:  
Colorado River

Name of watershed or Hydrologic Unit Code (HUC): 15010004

- Check if map/diagram of review are and/or potential jurisdictional areas is/are available upon request
- Check if other sites (e.g, offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): 07/2013

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION**

There **Are No** "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.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION**

There **Are No** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

**1. Waters of the U.S.**

**a. Indicate presence of water of U.S. in review area (Check all the apply):**

- TNWs (new)
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Inpoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-Wetlands waters Linear Feet Width (ft) and/or Acres  
Wetlands Acres:

**c. Limits (boundaries) of Jurisdiction based on:**

**2. Non-Regulated Waters/Wetlands (check if applicable):**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional:  
Explain: Drainage is ephemeral and does not qualify as a TNW or RPW. Therefore, this drainage could only be considered jurisdictional if it possessed a significant nexus with a downstream TNW. This drainage does not possess a significant nexus with the downstream TNW.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW:   Vegetation

Summarize rationale supporting determination:

**2. Wetland adjacent to TN**

Summarize rationale supporting conclusion that wetland is "adjacent"

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY)**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed Size (sq mi):	147931
Drainage Area (sq mi):	65.50000
Average Annual Rainfall (in):	16
Average Annual Snowfall (in):	45.4

**(ii) Physical Characteristics:**

**(a) Relationship with TNW**

- Tributary flows directly to TNW  
 Tributary flows through  tributaries before entering TNW

Project waters are  river miles from TNW

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: A (Coconino Wash)

Project waters are 30 (or more) river Miles from tributary to RPW:  
Project waters are 30 (or more) aerial (straight) miles from tributary to TNW:  
Project waters are 30 (or more) aerial (straight) miles from tributary to RPW:  
Project waters cross or serve as state boundaries. Explain:  
Identify flow route to TNW Coconino Wash to Heather Wash, Havasu Creek, to Colorado River.

**(b) General Tributary Characteristics**

Tributary is: Natural Explain:

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

Average Width (ft): 3.90  
Average Depth (ft): 1  
Average Side Slopes: 3:1

Primary tributary substrate composition (check all that apply):

Silts  Sands  Concrete  Muck  
 Cobbles  Gravel  
 Bedrock  Substrate - Vegetation Other, Explain:

Tributary Condition/Stability [e.g., highly eroding, sloughing banks. Explain: Stable  
Presence of Run/Riffle/Pool Complexes. Explain: Not present.  
Tributary Geometry: Relatively Straight  
Tributary Gradient (approximate average slope): 1%

**(c) Flow:**

Tributary Provides for: Ephemeral Flow  
Estimate average number of flow events in review area/year: 2-5  
Describe Flow Regime: Ephemeral  
Other Information on Duration and Volume:

Surface Flow is: Discrete and Confined Characteristics:  
Subsurface Flow: No Explain:  
 Dye (or other) test performed:

Tributary Has (Check all that apply):

- Bed and Banks
- OHWM (check all the apply): OHWM Indicators:
  - Clear, natural line impressed on the bank
  - Changes in soil character
  - Shelving
  - Vegetation matted down, bent or absent
  - Leaf litter disturbed or washed away
  - Sediment deposition
  - Water staining
  - Presence of litter and debris
  - Destruction of terrestrial vegetation
  - Presence of wrack line
  - Sediment sorting
  - Scour
  - Multiple observed or predicted flow events
  - Abrupt change in plant community

Other (list):

Discontinuous? Explain:

If factors other than the OHWN were used to determine lateral extent of CWA jurisdiction (Check all that apply):

- High tide line indicated by:
- oil or scum line along shore objects
- fine shell or debris deposits (foreshore)
- physical markings/characteristics
- tidal gauges
- other
- Mean High water Mark indicated by:
- survey to available datum
- physical markings
- vegetation lines/changes in vegetation types

**(iii) Chemical Characteristics:**

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

Explain:

Identify Specific Pollutants, if known:

**(iv) Biological Characteristics. Channel supports (check all that apply):**

Riparian Corridor Characteristics:

Wetland Fringe Characteristics:

Habitat for:

Federally Listed Species Explain findings:

Fish/Spawn Areas Explain findings:

Other environmentally -sensitive species Explain findings:

Aquatic/Wildlife diversity Explain:

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

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics**

Properties:

Wetland Size (ac):

Wetland Type, Explain:

Wetland Quality, Explain:

Project Wetlands Cross or Serve as State Boundaries, Explain:

**(b) General Flow Relationship with Non-TNW:**

Wetland Flow is:  Explain:

Surface Flow is:

Characteristics:

Subsurface Flow:  Explain Findings:

**(c) Wetland Adjacency Determination with Non-TNW:**

Wetland Directly Abutting Non-TNW

Wetland Not Directly Abutting Non-TNW

Discrete wetland hydrologic connection Explain:

Ecological connection Explain:

Separated by berm/barrier Explain:

**(d) Proximity (Relationship) to TNW**

Project Wetlands: River Miles from TNW:

Project Wetlands: Aerial Miles from TNW:

Flow is From:

Estimate approximate Location of Wetland within Floodplain:

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics: ect.).

Explain

Identify specific pollutants, if know:

**(iii) Biological Characteristics. Wetland supports (check all that apply):**

Riparian Buffer Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed Species Explain:

Fish/Spawn Areas Explain:

Other environmentally-sensitive species Explain:

Aquatic/Wildlife Diversity Explain:

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

All wetland(s) being considered in cumulative analysis:

Wetland acres in total being considered in cumulative analysis:

Describe each wetland (directly abuts tributary?; size in acres; overall biological, chemical or physical functions):

**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.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

**1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to section**

Feature is located more than 83 river miles (41 aerial miles) from the nearest downgradient TNW, the Colorado River. Based on the significant nexus analysis, little to no potential exists for a hydrologic connection to exist between this feature and the Colorado River. This feature does not have a more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the Colorado River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands. then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY)**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs Linear Feet:  Width (ft):  TNW Acres

Wetlands adjacent to TNWs: Acres:

2. **RPWs that flow directly or indirectly into TNWs**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and Rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters  Linear Feet:  Width (Ft).

Other non-wetland waters: Acres:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has significant nexus with a TNW is jurisdictional. Data supporting this conclusion provided at section III.c.

Provide estimates of jurisdictional waters within the review area (check all that apply):

Length (Linear Feet):  Width (feet):  Acres:

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

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting and RPW:

Wetlands directly abutting an RPW where tributaries typically flow "Seasonally". Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2 above. Provide rationale indicating that wetland is directly abutting and RPW

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C..

Provide estimates for jurisdictional wetland in the review area (in acres):

**7. Impoundments of jurisdictional waters.**

Demonstration of Jurisdiction:

**E. ISOLATED WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE**

Supporting rationale:

Length (linear feet):

Acres:

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:**

Non-Jurisdictional Waters

Explain finding of no Significant Nexus: See Section IIIC1.

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

- Non wetland-Waters (i.e., rivers, streams): linear feet :  width (ft):
- Other Non-wetland Waters MBR acres:
- Wetlands MBR acres:

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 (check all that apply):

- Non-wetland waters  linear feet (ft),  width (ft)
- Other waters  acres
- Wetlands  acres

**SECTION IV: DATA SOURCES**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, Plans, Plots or Plat Submitted by Applicant/Consultant:
- Data Sheets Prepared/Submitted by or on behalf of Applicant/Consultant
  - Office Concurs with data sheets/delineation report
  - Office Does Not Concur with data sheets/delineation report
- Data Sheets Prepared by the Corps
- Corps Navigable Water Study
- US Geological Survey Hydrologic Atlas
  - USGS NHD Data
  - USGS 8 and 12 digit HUC Maps
- US Geological Survey Map(s) Scale and Quad Name:

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A (Coconino Wash)**

- USDA Nat'l Res Conservation Service Soil Survey      Citation:
- National Wetlands Inventory Maps      Cite Map Name:
- State/Local Wetland Inventory Maps
- FEMA/FIRM    Maps:
- 100-year Floodplain Elevation is:  (National Geodetic Vertical Datum of 1929)
- Aerial Photographs    (Name and Date):  ESRI Online Microsoft 2010
- Other Photographs    (Name and Date):  Ground Photos; July 2013
- Previous Determinations    File No. and Date of Response Letter:
- Applicable/Supporting Case Law    Citation:
- Applicable/Supporting Scientific Literature    Citation:
- Other Information, Please Specify:

Additional Comments to Support JD:

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**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD)** August 15, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER** Los Angeles District, File No. Pending

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Drainage Feature** **A1 (Unnamed Drainage)**

State: AZ County/Parish/Borough: Coconino County City: Tusayan

Center coordinates of site: Lat. 35.9664°N Long. -112.1140°W

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:  
Colorado River

Name of watershed or Hydrologic Unit Code (HUC): 15010004

- Check if map/diagram of review are and/or potential jurisdictional areas is/are available upon request
- Check if other sites (e.g, offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): 07/2013

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION**

There **Are No** "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.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION**

There **Are No** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

**1. Waters of the U.S.**

**a. Indicate presence of water of U.S. in review area (Check all the apply):**

- TNWs (new)
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Inpoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-Wetlands waters Linear Feet Width (ft) and/or Acres  
Wetlands Acres:

**c. Limits (boundaries) of Jurisdiction based on:**

**2. Non-Regulated Waters/Wetlands (check if applicable):**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional:  
Explain: Drainage is ephemeral and does not qualify as a TNW or RPW. Therefore, this drainage could only be considered jurisdictional if it possessed a significant nexus with a downstream TNW. This drainage does not possess a significant nexus with the downstream TNW.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW:   Vegetation

Summarize rationale supporting determination:

**2. Wetland adjacent to TN**

Summarize rationale supporting conclusion that wetland is "adjacent"

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY)**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed Size (sq mi):	147931
Drainage Area (sq mi):	65.50000
Average Annual Rainfall (in):	16
Average Annual Snowfall (in):	45.4

**(ii) Physical Characteristics:**

**(a) Relationship with TNW**

- Tributary flows directly to TNW  
 Tributary flows through  tributaries before entering TNW

Project waters are  river miles from TNW

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A1 (Unnamed Drainage)**

Project waters are  river Miles from tributary to RPW:  
Project waters are  aerial (straight) miles from tributary to TNW:  
Project waters are  aerial (straight) miles from tributary to RPW:  
Project waters cross or serve as state boundaries. Explain:   
Identify flow route to TNW

**(b) General Tributary Characteristics**

Tributary is:  Explain:

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

Average Width (ft):   
Average Depth (ft):   
Average Side Slopes:

Primary tributary substrate composition (check all that apply):

Silts     Sands     Concrete     Muck  
 Cobbles     Gravel  
 Bedrock     Substrate - Vegetation    Other, Explain:

Tributary Condition/Stability [e.g., highly eroding, sloughing banks. Explain:   
Presence of Run/Riffle/Pool Complexes. Explain:   
Tributary Geometry:   
Tributary Gradient (approximate average slope):

**(c) Flow:**

Tributary Provides for:   
Estimate average number of flow events in review area/year:   
Describe Flow Regime:   
Other Information on Duration and Volume:

Surface Flow is:  Characteristics:   
Subsurface Flow:  Explain:   
 Dye (or other) test performed:

Tributary Has (Check all that apply):

- Bed and Banks
- OHWM (check all the apply): OHWM Indicators:
  - Clear, natural line impressed on the bank
  - Changes in soil character
  - Shelving
  - Vegetation matted down, bent or absent
  - Leaf litter disturbed or washed away
  - Sediment deposition
  - Water staining
  - Presence of litter and debris
  - Destruction of terrestrial vegetation
  - Presence of wrack line
  - Sediment sorting
  - Scour
  - Multiple observed or predicted flow events
  - Abrupt change in plant community

Other (list):

Discontinuous? Explain:

If factors other than the OHWN were used to determine lateral extent of CWA jurisdiction (Check all that apply):

- High tide line indicated by:
- oil or scum line along shore objects
- fine shell or debris deposits (foreshore)
- physical markings/characteristics
- tidal gauges
- other
- Mean High water Mark indicated by:
- survey to available datum
- physical markings
- vegetation lines/changes in vegetation types

**(iii) Chemical Characteristics:**

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

Explain:

Identify Specific Pollutants, if known:

**(iv) Biological Characteristics. Channel supports (check all that apply):**

Riparian Corridor Characteristics:

Wetland Fringe Characteristics:

Habitat for:

Federally Listed Species Explain findings:

Fish/Spawn Areas Explain findings:

Other environmentally -sensitive species Explain findings:

Aquatic/Wildlife diversity Explain:

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

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics**

Properties:

Wetland Size (ac):

Wetland Type, Explain:

Wetland Quality, Explain:

Project Wetlands Cross or Serve as State Boundaries, Explain:

**(b) General Flow Relationship with Non-TNW:**

Wetland Flow is:  Explain:

Surface Flow is:

Characteristics:

Subsurface Flow:  Explain Findings:

**(c) Wetland Adjacency Determination with Non-TNW:**

Wetland Directly Abutting Non-TNW

Wetland Not Directly Abutting Non-TNW

Discrete wetland hydrologic connection Explain:

Ecological connection Explain:

Separated by berm/barrier Explain:

**(d) Proximity (Relationship) to TNW**

Project Wetlands: River Miles from TNW:

Project Wetlands: Aerial Miles from TNW:

Flow is From:

Estimate approximate Location of Wetland within Floodplain:

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics: ect.).

Explain

Identify specific pollutants, if know:

**(iii) Biological Characteristics. Wetland supports (check all that apply):**

Riparian Buffer Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed Species Explain:

Fish/Spawn Areas Explain:

Other environmentally-sensitive species Explain:

Aquatic/Wildlife Diversity Explain:

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

All wetland(s) being considered in cumulative analysis:

Wetland acres in total being considered in cumulative analysis:

Describe each wetland (directly abuts tributary?; size in acres; overall biological, chemical or physical functions):

**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.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

**1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to section**

Feature is located more than 83 river miles (41 aerial miles) from the nearest downgradient TNW, the Colorado River. Based on the significant nexus analysis, little to no potential exists for a hydrologic connection to exist between this feature and the Colorado River. This feature does not have a more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the Colorado River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands. then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY)**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs Linear Feet:  Width (ft):  TNW Acres

Wetlands adjacent to TNWs: Acres:

2. **RPWs that flow directly or indirectly into TNWs**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and Rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters  Linear Feet:  Width (Ft).

Other non-wetland waters: Acres:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has significant nexus with a TNW is jurisdictional. Data supporting this conclusion provided at section III.c.

Provide estimates of jurisdictional waters within the review area (check all that apply):

Length (Linear Feet):  Width (feet):  Acres:

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

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting and RPW:

Wetlands directly abutting an RPW where tributaries typically flow "Seasonally". Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2 above. Provide rationale indicating that wetland is directly abutting and RPW

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C..

Provide estimates for jurisdictional wetland in the review area (in acres):

**7. Impoundments of jurisdictional waters.**

Demonstration of Jurisdiction:

**E. ISOLATED WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE**

Supporting rationale:

Length (linear feet):

Acres:

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:**

Non-Jurisdictional Waters

Explain finding of no Significant Nexus: See Section IIIC1.

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

- Non wetland-Waters (i.e., rivers, streams): linear feet :  width (ft):
- Other Non-wetland Waters MBR acres:
- Wetlands MBR acres:

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 (check all that apply):

- Non-wetland waters  linear feet (ft),  width (ft)
- Other waters  acres
- Wetlands  acres

**SECTION IV: DATA SOURCES**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, Plans, Plots or Plat Submitted by Applicant/Consultant:
- Data Sheets Prepared/Submitted by or on behalf of Applicant/Consultant
  - Office Concurrs with data sheets/delineation report
  - Office Does Not Concur with data sheets/delineation report
- Data Sheets Prepared by the Corps
- Corps Navigable Water Study
- US Geological Survey Hydrologic Atlas
  - USGS NHD Data
  - USGS 8 and 12 digit HUC Maps
- US Geological Survey Map(s) Scale and Quad Name:

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A1 (Unnamed  
Drainage)**

- USDA Nat'l Res Conservation Service Soil Survey      Citation:
- National Wetlands Inventory Maps      Cite Map Name:
- State/Local Wetland Inventory Maps
- FEMA/FIRM    Maps:
- 100-year Floodplain Elevation is:  (National Geodetic Vertical Datum of 1929)
- Aerial Photographs    (Name and Date):  ESRI Online Microsoft 2010
- Other Photographs    (Name and Date):  Ground Photos; July 2013
- Previous Determinations    File No. and Date of Response Letter:
- Applicable/Supporting Case Law    Citation:
- Applicable/Supporting Scientific Literature    Citation:
- Other Information, Please Specify:

Additional Comments to Support JD:

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD)** August 15, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER** Los Angeles District, File No. Pending

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Drainage Feature** A2 (Long Jim Canyon)

State: AZ County/Parish/Borough: Coconino County City: Tusayan

Center coordinates of site: Lat. 35.9664°N Long. -112.1140°W

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:  
Colorado River

Name of watershed or Hydrologic Unit Code (HUC): 15010004

- Check if map/diagram of review are and/or potential jurisdictional areas is/are available upon request
- Check if other sites (e.g, offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): 07/2013

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION**

There **Are No** "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.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION**

There **Are No** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

**1. Waters of the U.S.**

**a. Indicate presence of water of U.S. in review area (Check all the apply):**

- TNWs (new)
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Inpoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-Wetlands waters Linear Feet Width (ft) and/or Acres  
Wetlands Acres:

**c. Limits (boundaries) of Jurisdiction based on:**

**2. Non-Regulated Waters/Wetlands (check if applicable):**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional:  
Explain: Drainage is ephemeral and does not qualify as a TNW or RPW. Therefore, this drainage could only be considered jurisdictional if it possessed a significant nexus with a downstream TNW. This drainage does not possess a significant nexus with the downstream TNW.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW:   Vegetation

Summarize rationale supporting determination:

**2. Wetland adjacent to TN**

Summarize rationale supporting conclusion that wetland is "adjacent"

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY)**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed Size (sq mi):	147931
Drainage Area (sq mi):	65.50000
Average Annual Rainfall (in):	16
Average Annual Snowfall (in):	45.4

**(ii) Physical Characteristics:**

**(a) Relationship with TNW**

- Tributary flows directly to TNW  
 Tributary flows through  tributaries before entering TNW

Project waters are  river miles from TNW

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A2 (Long Jim Canyon)**

Project waters are  river Miles from tributary to RPW:  
Project waters are  aerial (straight) miles from tributary to TNW:  
Project waters are  aerial (straight) miles from tributary to RPW:  
Project waters cross or serve as state boundaries. Explain:   
Identify flow route to TNW

**(b) General Tributary Characteristics**

Tributary is:  Explain:

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

Average Width (ft):   
Average Depth (ft):   
Average Side Slopes:

Primary tributary substrate composition (check all that apply):

Silts     Sands     Concrete     Muck  
 Cobbles     Gravel  
 Bedrock     Substrate - Vegetation    Other, Explain:

Tributary Condition/Stability [e.g., highly eroding, sloughing banks. Explain:   
Presence of Run/Riffle/Pool Complexes. Explain:   
Tributary Geometry:   
Tributary Gradient (approximate average slope):

**(c) Flow:**

Tributary Provides for:   
Estimate average number of flow events in review area/year:   
Describe Flow Regime:   
Other Information on Duration and Volume:

Surface Flow is:  Characteristics:   
Subsurface Flow:  Explain:   
 Dye (or other) test performed:

Tributary Has (Check all that apply):

- Bed and Banks
- OHWM (check all the apply): OHWM Indicators:
  - Clear, natural line impressed on the bank
  - Changes in soil character
  - Shelving
  - Vegetation matted down, bent or absent
  - Leaf litter disturbed or washed away
  - Sediment deposition
  - Water staining
  - Presence of litter and debris
  - Destruction of terrestrial vegetation
  - Presence of wrack line
  - Sediment sorting
  - Scour
  - Multiple observed or predicted flow events
  - Abrupt change in plant community

Other (list):

Discontinuous? Explain:

If factors other than the OHWN were used to determine lateral extent of CWA jurisdiction (Check all that apply):

- High tide line indicated by:
- oil or scum line along shore objects
- fine shell or debris deposits (foreshore)
- physical markings/characteristics
- tidal gauges
- other
- Mean High water Mark indicated by:
- survey to available datum
- physical markings
- vegetation lines/changes in vegetation types

**(iii) Chemical Characteristics:**

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

Explain:

Identify Specific Pollutants, if known:

**(iv) Biological Characteristics. Channel supports (check all that apply):**

Riparian Corridor Characteristics:

Wetland Fringe Characteristics:

Habitat for:

Federally Listed Species Explain findings:

Fish/Spawn Areas Explain findings:

Other environmentally -sensitive species Explain findings:

Aquatic/Wildlife diversity Explain:

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

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics**

Properties:

Wetland Size (ac):

Wetland Type, Explain:

Wetland Quality, Explain:

Project Wetlands Cross or Serve as State Boundaries, Explain:

**(b) General Flow Relationship with Non-TNW:**

Wetland Flow is:  Explain:

Surface Flow is:

Characteristics:

Subsurface Flow:  Explain Findings:

**(c) Wetland Adjacency Determination with Non-TNW:**

Wetland Directly Abutting Non-TNW

Wetland Not Directly Abutting Non-TNW

Discrete wetland hydrologic connection Explain:

Ecological connection Explain:

Separated by berm/barrier Explain:

**(d) Proximity (Relationship) to TNW**

Project Wetlands: River Miles from TNW:

Project Wetlands: Aerial Miles from TNW:

Flow is From:

Estimate approximate Location of Wetland within Floodplain:

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics: ect.).

Explain

Identify specific pollutants, if know:

**(iii) Biological Characteristics. Wetland supports (check all that apply):**

Riparian Buffer Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed Species Explain:

Fish/Spawn Areas Explain:

Other environmentally-sensitive species Explain:

Aquatic/Wildlife Diversity Explain:

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

All wetland(s) being considered in cumulative analysis:

Wetland acres in total being considered in cumulative analysis:

Describe each wetland (directly abuts tributary?; size in acres; overall biological, chemical or physical functions):

**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.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

**1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to section**

Feature is located more than 83 river miles (41 aerial miles) from the nearest downgradient TNW, the Colorado River. Based on the significant nexus analysis, little to no potential exists for a hydrologic connection to exist between this feature and the Colorado River. This feature does not have a more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the Colorado River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands. then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY)**

**1. TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs Linear Feet:  Width (ft):  TNW Acres

Wetlands adjacent to TNWs: Acres:

**2. RPWs that flow directly or indirectly into TNWs**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and Rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters  Linear Feet:  Width (Ft).

Other non-wetland waters: Acres:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has significant nexus with a TNW is jurisdictional. Data supporting this conclusion provided at section III.c.

Provide estimates of jurisdictional waters within the review area (check all that apply):

Length (Linear Feet):  Width (feet):  Acres:

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

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting and RPW:

Wetlands directly abutting an RPW where tributaries typically flow "Seasonally". Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2 above. Provide rationale indicating that wetland is directly abutting and RPW

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C..

Provide estimates for jurisdictional wetland in the review area (in acres):

**7. Impoundments of jurisdictional waters.**

Demonstration of Jurisdiction:

**E. ISOLATED WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE**

Supporting rationale:

Length (linear feet):

Acres:

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:**

Non-Jurisdictional Waters

Explain finding of no Significant Nexus:

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

- Non wetland-Waters (i.e., rivers, streams): linear feet :  width (ft):
- Other Non-wetland Waters MBR acres:
- Wetlands MBR acres:

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 (check all that apply):

- Non-wetland waters  linear feet (ft),  width (ft)
- Other waters  acres
- Wetlands  acres

**SECTION IV: DATA SOURCES**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, Plans, Plots or Plat Submitted by Applicant/Consultant:
- Data Sheets Prepared/Submitted by or on behalf of Applicant/Consultant
  - Office Concurrs with data sheets/delineation report
  - Office Does Not Concur with data sheets/delineation report
- Data Sheets Prepared by the Corps
- Corps Navigable Water Study
- US Geological Survey Hydrologic Atlas
  - USGS NHD Data
  - USGS 8 and 12 digit HUC Maps
- US Geological Survey Map(s) Scale and Quad Name:

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A2 (Long Jim Canyon)**

- USDA Nat'l Res Conservation Service Soil Survey      Citation:
- National Wetlands Inventory Maps      Cite Map Name:
- State/Local Wetland Inventory Maps
- FEMA/FIRM    Maps:
- 100-year Floodplain Elevation is:  (National Geodetic Vertical Datum of 1929)
- Aerial Photographs    (Name and Date):
- Other Photographs    (Name and Date):
- Previous Determinations    File No. and Date of Response Letter:
- Applicable/Supporting Case Law    Citation:
- Applicable/Supporting Scientific Literature    Citation:
- Other Information, Please Specify:

Additional Comments to Support JD:

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD)** August 15, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER** Los Angeles District, File No. Pending

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Drainage Feature** **A3 (Unnamed Tank)**

State: AZ County/Parish/Borough: Coconino County City: Tusayan

Center coordinates of site: Lat. 35.9664°N Long. -112.1140°W

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:  
Colorado River

Name of watershed or Hydrologic Unit Code (HUC): 15010004

- Check if map/diagram of review are and/or potential jurisdictional areas is/are available upon request
- Check if other sites (e.g, offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): 07/2013

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION**

There **Are No** "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.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION**

There **Are No** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

**1. Waters of the U.S.**

**a. Indicate presence of water of U.S. in review area (Check all the apply):**

- TNWs (new)
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Inpoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-Wetlands waters Linear Feet Width (ft) and/or Acres  
Wetlands Acres:

**c. Limits (boundaries) of Jurisdiction based on:**

**2. Non-Regulated Waters/Wetlands (check if applicable):**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional:  
Explain: Feature is ephemeral and does not qualify as a TNW or RPW. Therefore, this feature could only be considered jurisdictional if it possessed a significant nexus with a downstream TNW. This feature does not possess a significant nexus with the downstream TNW.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW:   Vegetation

Summarize rationale supporting determination:

**2. Wetland adjacent to TN**

Summarize rationale supporting conclusion that wetland is "adjacent"

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY)**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed Size (sq mi):	147931
Drainage Area (sq mi):	65.50000
Average Annual Rainfall (in):	16
Average Annual Snowfall (in):	45.4

**(ii) Physical Characteristics:**

**(a) Relationship with TNW**

- Tributary flows directly to TNW  
 Tributary flows through  tributaries before entering TNW

Project waters are  river miles from TNW

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: A3 (Unnamed Tank)

Project waters are 30 (or more) river Miles from tributary to RPW:  
Project waters are 30 (or more) aerial (straight) miles from tributary to TNW:  
Project waters are 30 (or more) aerial (straight) miles from tributary to RPW:  
Project waters cross or serve as state boundaries. Explain:  
Identify flow route to TNW Coconino Wash to Heather Wash, Havasu Creek, to Colorado River.

**(b) General Tributary Characteristics**

Tributary is: Artificial (Man- Explain: Stock tank.

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

Average Width (ft): 36.80  
Average Depth (ft): 1  
Average Side Slopes: 4:1 (or greater)

Primary tributary substrate composition (check all that apply):

Silts  Sands  Concrete  Muck  
 Cobbles  Gravel  
 Bedrock  Substrate - Vegetation Other, Explain:

Tributary Condition/Stability [e.g., highly eroding, sloughing banks. Explain: Stable  
Presence of Run/Riffle/Pool Complexes. Explain: Not present.  
Tributary Geometry: Relatively Straight  
Tributary Gradient (approximate average slope): 1%

**(c) Flow:**

Tributary Provides for: Ephemeral Flow  
Estimate average number of flow events in review area/year: 2-5  
Describe Flow Regime: Ephemeral  
Other Information on Duration and Volume:

Surface Flow is: Discrete and Confined Characteristics:  
Subsurface Flow: No Explain:  
 Dye (or other) test performed:

Tributary Has (Check all that apply):

- Bed and Banks
- OHWM (check all the apply): OHWM Indicators:
  - Clear, natural line impressed on the bank
  - Changes in soil character
  - Shelving
  - Vegetation matted down, bent or absent
  - Leaf litter disturbed or washed away
  - Sediment deposition
  - Water staining
  - Presence of litter and debris
  - Destruction of terrestrial vegetation
  - Presence of wrack line
  - Sediment sorting
  - Scour
  - Multiple observed or predicted flow events
  - Abrupt change in plant community

Other (list):

Discontinuous? Explain:

If factors other than the OHWN were used to determine lateral extent of CWA jurisdiction (Check all that apply):

- High tide line indicated by:
- oil or scum line along shore objects
- fine shell or debris deposits (foreshore)
- physical markings/characteristics
- tidal gauges
- other
- Mean High water Mark indicated by:
- survey to available datum
- physical markings
- vegetation lines/changes in vegetation types

**(iii) Chemical Characteristics:**

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

Explain:

Identify Specific Pollutants, if known:

**(iv) Biological Characteristics. Channel supports (check all that apply):**

Riparian Corridor Characteristics:

Wetland Fringe Characteristics:

Habitat for:

- Federally Listed Species Explain findings:
- Fish/Spawn Areas Explain findings:
- Other environmentally -sensitive species Explain findings:
- Aquatic/Wildlife diversity Explain:

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

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics**

Properties:

Wetland Size (ac):

Wetland Type, Explain:

Wetland Quality, Explain:

Project Wetlands Cross or Serve as State Boundaries, Explain:

**(b) General Flow Relationship with Non-TNW:**

Wetland Flow is:  Explain:

Surface Flow is:

Characteristics:

Subsurface Flow:  Explain Findings:

**(c) Wetland Adjacency Determination with Non-TNW:**

- Wetland Directly Abutting Non-TNW
- Wetland Not Directly Abutting Non-TNW
  - Discrete wetland hydrologic connection Explain:
  - Ecological connection Explain:
  - Separated by berm/barrier Explain:

**(d) Proximity (Relationship) to TNW**

Project Wetlands: River Miles from TNW:

Project Wetlands: Aerial Miles from TNW:

Flow is From:

Estimate approximate Location of Wetland within Floodplain:

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics: ect.).

Explain

Identify specific pollutants, if know:

**(iii) Biological Characteristics. Wetland supports (check all that apply):**

Riparian Buffer Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed Species Explain:

Fish/Spawn Areas Explain:

Other environmentally-sensitive species Explain:

Aquatic/Wildlife Diversity Explain:

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

All wetland(s) being considered in cumulative analysis:

Wetland acres in total being considered in cumulative analysis:

Describe each wetland (directly abuts tributary?; size in acres; overall biological, chemical or physical functions):

**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.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

**1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to section**

Feature is located more than 83 river miles (41 aerial miles) from the nearest downgradient TNW, the Colorado River. Based on the significant nexus analysis, little to no potential exists for a hydrologic connection to exist between this feature and the Colorado River. This feature does not have a more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the Colorado River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands. then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY)**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs Linear Feet:  Width (ft):  TNW Acres

Wetlands adjacent to TNWs: Acres:

2. **RPWs that flow directly or indirectly into TNWs**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and Rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters  Linear Feet:  Width (Ft).

Other non-wetland waters: Acres:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has significant nexus with a TNW is jurisdictional. Data supporting this conclusion provided at section III.c.

Provide estimates of jurisdictional waters within the review area (check all that apply):

Length (Linear Feet):  Width (feet):  Acres:

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

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting and RPW:

Wetlands directly abutting an RPW where tributaries typically flow "Seasonally". Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2 above. Provide rationale indicating that wetland is directly abutting and RPW

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C..

Provide estimates for jurisdictional wetland in the review area (in acres):

**7. Impoundments of jurisdictional waters.**

Demonstration of Jurisdiction:

**E. ISOLATED WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE**

Supporting rationale:

Length (linear feet):

Acres:

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:**

Non-Jurisdictional Waters

Explain finding of no Significant Nexus:

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

- Non wetland-Waters (i.e., rivers, streams): linear feet :  width (ft):
- Other Non-wetland Waters MBR acres:
- Wetlands MBR acres:

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 (check all that apply):

- Non-wetland waters  linear feet (ft),  width (ft)
- Other waters  acres
- Wetlands  acres

**SECTION IV: DATA SOURCES**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, Plans, Plots or Plat Submitted by Applicant/Consultant:
- Data Sheets Prepared/Submitted by or on behalf of Applicant/Consultant
  - Office Concurrs with data sheets/delineation report
  - Office Does Not Concur with data sheets/delineation report
- Data Sheets Prepared by the Corps
- Corps Navigable Water Study
- US Geological Survey Hydrologic Atlas
  - USGS NHD Data
  - USGS 8 and 12 digit HUC Maps
- US Geological Survey Map(s) Scale and Quad Name:

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A3 (Unnamed Tank)**

- USDA Nat'l Res Conservation Service Soil Survey      Citation:
- National Wetlands Inventory Maps      Cite Map Name:
- State/Local Wetland Inventory Maps
- FEMA/FIRM    Maps:
- 100-year Floodplain Elevation is:  (National Geodetic Vertical Datum of 1929)
- Aerial Photographs    (Name and Date):
- Other Photographs    (Name and Date):
- Previous Determinations    File No. and Date of Response Letter:
- Applicable/Supporting Case Law    Citation:
- Applicable/Supporting Scientific Literature    Citation:
- Other Information, Please Specify:

Additional Comments to Support JD:

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD)** August 15, 2013

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER** Los Angeles District, File No. Pending

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Drainage Feature** A4 (McRae Tank)

State: AZ County/Parish/Borough: Coconino County City: Tusayan

Center coordinates of site: Lat. 35.9664°N Long. -112.1140°W

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:  
Colorado River

Name of watershed or Hydrologic Unit Code (HUC): 15010004

- Check if map/diagram of review are and/or potential jurisdictional areas is/are available upon request
- Check if other sites (e.g, offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY)**

- Office (Desk) Determination. Date:
- Field Determination. Date(s): 07/2013

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION**

There **Are No** "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.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION**

There **Are No** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

**1. Waters of the U.S.**

**a. Indicate presence of water of U.S. in review area (Check all the apply):**

- TNWs (new)
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Inpoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

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

Non-Wetlands waters Linear Feet Width (ft) and/or Acres  
Wetlands Acres:

**c. Limits (boundaries) of Jurisdiction based on:**

**2. Non-Regulated Waters/Wetlands (check if applicable):**

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional:  
Explain: Feature is ephemeral and does not qualify as a TNW or RPW. Therefore, this feature could only be considered jurisdictional if it possessed a significant nexus with a downstream TNW. This feature does not possess a significant nexus with the downstream TNW.

**SECTION III: CWA ANALYSIS**

**A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW:   Vegetation

Summarize rationale supporting determination:

**2. Wetland adjacent to TN**

Summarize rationale supporting conclusion that wetland is "adjacent"

**B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY)**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under Rapanos have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed Size (sq mi):	147931
Drainage Area (sq mi):	65.50000
Average Annual Rainfall (in):	16
Average Annual Snowfall (in):	45.4

**(ii) Physical Characteristics:**

**(a) Relationship with TNW**

- Tributary flows directly to TNW  
 Tributary flows through  tributaries before entering TNW

Project waters are  river miles from TNW

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A4 (McRae Tank)**

Project waters are  river Miles from tributary to RPW:  
Project waters are  aerial (straight) miles from tributary to TNW:  
Project waters are  aerial (straight) miles from tributary to RPW:  
Project waters cross or serve as state boundaries. Explain:   
Identify flow route to TNW

**(b) General Tributary Characteristics**

Tributary is:  Explain:

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

Average Width (ft):   
Average Depth (ft):   
Average Side Slopes:

Primary tributary substrate composition (check all that apply):

Silts     Sands     Concrete     Muck  
 Cobbles     Gravel  
 Bedrock     Substrate - Vegetation    Other, Explain:

Tributary Condition/Stability [e.g., highly eroding, sloughing banks. Explain:   
Presence of Run/Riffle/Pool Complexes. Explain:   
Tributary Geometry:   
Tributary Gradient (approximate average slope):

**(c) Flow:**

Tributary Provides for:   
Estimate average number of flow events in review area/year:   
Describe Flow Regime:   
Other Information on Duration and Volume:

Surface Flow is:  Characteristics:   
Subsurface Flow:  Explain:   
 Dye (or other) test performed:

Tributary Has (Check all that apply):

- Bed and Banks
- OHWM (check all the apply): OHWM Indicators:
  - Clear, natural line impressed on the bank
  - Changes in soil character
  - Shelving
  - Vegetation matted down, bent or absent
  - Leaf litter disturbed or washed away
  - Sediment deposition
  - Water staining
  - Presence of litter and debris
  - Destruction of terrestrial vegetation
  - Presence of wrack line
  - Sediment sorting
  - Scour
  - Multiple observed or predicted flow events
  - Abrupt change in plant community

Other (list):

Discontinuous? Explain:

If factors other than the OHWN were used to determine lateral extent of CWA jurisdiction (Check all that apply):

- High tide line indicated by:
- Mean High water Mark indicated by:
- oil or scum line along shore objects
- survey to available datum
- fine shell or debris deposits (foreshore)
- physical markings
- physical markings/characteristics
- vegetation lines/changes in vegetation types
- tidal gauges
- other

**(iii) Chemical Characteristics:**

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

Explain:

Identify Specific Pollutants, if known:

**(iv) Biological Characteristics. Channel supports (check all that apply):**

Riparian Corridor Characteristics:

Wetland Fringe Characteristics:

Habitat for:

Federally Listed Species Explain findings:

Fish/Spawn Areas Explain findings:

Other environmentally -sensitive species Explain findings:

Aquatic/Wildlife diversity Explain:

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

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics**

Properties:

Wetland Size (ac):

Wetland Type, Explain:

Wetland Quality, Explain:

Project Wetlands Cross or Serve as State Boundaries, Explain:

**(b) General Flow Relationship with Non-TNW:**

Wetland Flow is:  Explain:

Surface Flow is:

Characteristics:

Subsurface Flow:  Explain Findings:

**(c) Wetland Adjacency Determination with Non-TNW:**

Wetland Directly Abutting Non-TNW

Wetland Not Directly Abutting Non-TNW

Discrete wetland hydrologic connection Explain:

Ecological connection Explain:

Separated by berm/barrier Explain:

**(d) Proximity (Relationship) to TNW**

Project Wetlands: River Miles from TNW:

Project Wetlands: Aerial Miles from TNW:

Flow is From:

Estimate approximate Location of Wetland within Floodplain:

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics: ect.).

Explain

Identify specific pollutants, if know:

**(iii) Biological Characteristics. Wetland supports (check all that apply):**

Riparian Buffer Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed Species Explain:

Fish/Spawn Areas Explain:

Other environmentally-sensitive species Explain:

Aquatic/Wildlife Diversity Explain:

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

All wetland(s) being considered in cumulative analysis:

Wetland acres in total being considered in cumulative analysis:

Describe each wetland (directly abuts tributary?; size in acres; overall biological, chemical or physical functions):

**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.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

**1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to section**

Feature is located more than 83 river miles (41 aerial miles) from the nearest downgradient TNW, the Colorado River. Based on the significant nexus analysis, little to no potential exists for a hydrologic connection to exist between this feature and the Colorado River. This feature does not have a more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the Colorado River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands. then go to Section III.D:

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY)**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs Linear Feet:  Width (ft):  TNW Acres

Wetlands adjacent to TNWs: Acres:

2. **RPWs that flow directly or indirectly into TNWs**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and Rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters  Linear Feet:  Width (Ft).

Other non-wetland waters: Acres:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has significant nexus with a TNW is jurisdictional. Data supporting this conclusion provided at section III.c.

Provide estimates of jurisdictional waters within the review area (check all that apply):

Length (Linear Feet):  Width (feet):  Acres:

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

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting and RPW:

Wetlands directly abutting an RPW where tributaries typically flow "Seasonally". Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2 above. Provide rationale indicating that wetland is directly abutting and RPW

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetland in the review area: Acres:

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C..

Provide estimates for jurisdictional wetland in the review area (in acres):

**7. Impoundments of jurisdictional waters.**

Demonstration of Jurisdiction:

**E. ISOLATED WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE**

Supporting rationale:

Length (linear feet):

Acres:

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS:**

Non-Jurisdictional Waters

Explain finding of no Significant Nexus:

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

- Non wetland-Waters (i.e., rivers, streams): linear feet :  width (ft):
- Other Non-wetland Waters MBR acres:
- Wetlands MBR acres:

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 (check all that apply):

- Non-wetland waters  linear feet (ft),  width (ft)
- Other waters  acres
- Wetlands  acres

**SECTION IV: DATA SOURCES**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, Plans, Plots or Plat Submitted by Applicant/Consultant:
- Data Sheets Prepared/Submitted by or on behalf of Applicant/Consultant
  - Office Concurs with data sheets/delineation report
  - Office Does Not Concur with data sheets/delineation report
- Data Sheets Prepared by the Corps
- Corps Navigable Water Study
- US Geological Survey Hydrologic Atlas
  - USGS NHD Data
  - USGS 8 and 12 digit HUC Maps
- US Geological Survey Map(s) Scale and Quad Name:

APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S Army Cops of Engineers

Feature ID: **A4 (McRae Tank)**

- USDA Nat'l Res Conservation Service Soil Survey      Citation:
- National Wetlands Inventory Maps      Cite Map Name:
- State/Local Wetland Inventory Maps
- FEMA/FIRM    Maps:
- 100-year Floodplain Elevation is:  (National Geodetic Vertical Datum of 1929)
- Aerial Photographs    (Name and Date):
- Other Photographs    (Name and Date):
- Previous Determinations    File No. and Date of Response Letter:
- Applicable/Supporting Case Law    Citation:
- Applicable/Supporting Scientific Literature    Citation:
- Other Information, Please Specify:

Additional Comments to Support JD: