

**APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S. Army Corps of Engineers**

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):** May 18, 2015

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** SPA-2015-00104-ABQ; Albuquerque District, Southeast Drainage, Hawks Landing Residential Subdivision, Albuquerque, Bernalillo County, New Mexico

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: **New Mexico** County: **Bernalillo** City: **Albuquerque**

Center coordinates of site (lat/long in degree decimal format): Lat. **35.175061796047814°**, Long. **-106.49476635389964°**  
Universal Transverse Mercator: **13 S 363886E, 3893480N**

Name of nearest waterbody: **Arroyo de Domingo Baca**

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

Name of watershed or Hydrologic Unit Code (HUC): **Rio Grande-Albuquerque, New Mexico. 13020203**

- Check if map/diagram of review area 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. *Click here to enter a date.*  
Date:
- Field Determination. **March 20, 2015, April 30, 2015**  
Date(s):

**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. [Required]

- Waters subject to the ebb and flow of the tide.
- Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: *Click here to enter text.*

**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. [Required]

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

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters<sup>2</sup> (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
- Impoundments 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-wetland waters: **883 linear feet: Varies (2-20 ft) width (ft) and/or 0.3 acres.**

Wetlands: # acres.

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

Elevation of established OHWM (if known): *Click here to enter text.*

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

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

**SECTION III: CWA ANALYSIS**

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

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

<sup>3</sup> Supporting documentation is presented in Section III.F.

**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: *Click here to enter text.*

Summarize rationale supporting determination: *Click here to enter text.*

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is "adjacent": *Click here to enter text.*

**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 tributary with perennial flow, skip to Section III.D.4.

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<sup>4</sup> 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: **12.34 square miles (Domingo Baca watershed)**

Drainage area: **0.57 square miles**

Average annual rainfall: **9.39 inches**

Average annual snowfall: **10 inches**

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.

Project waters are **5-10** river miles from RPW.

Project waters are **5-10** aerial (straight) miles from TNW.

Project waters are **5-10** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: **No**

Identify flow route to TNW<sup>5</sup>: **The subject drainage (hereafter referred to as the Southeast Drainage) flows west out of the review area and enters a concrete trapezoidal channel. The concrete channel turns abruptly south and empties into Arroyo de Domingo Baca. Approximately 0.5 miles downstream of this point, water is detained in the South Domingo Baca Dam (detention dam). Any water that leaves this structure flows down the Arroyo de Domingo Baca for 5.9 miles before its confluence with the Albuquerque North Diversion Channel. It then flows approximately 2.85 miles north before emptying into the Rio Grande River, a TNW.**

Tributary stream order, if known: **1**

**(b) General Tributary Characteristics (check all that apply):**

Tributary is:  Natural

Artificial (man-made). Explain: *Click here to enter text.*

Manipulated (man-altered). Explain: *Click here to enter text.*

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

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

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

Average width: **6 feet**  
Average depth: **0.75 feet**  
Average side slopes: **3:1**

**Primary tributary substrate composition (check all that apply):**

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Silts  | <input checked="" type="checkbox"/> Sands   | <input type="checkbox"/> Concrete |
| <input checked="" type="checkbox"/> Cobbles                               | <input checked="" type="checkbox"/> Gravel  | <input type="checkbox"/> Muck     |
| <input type="checkbox"/> Bedrock  | <input type="checkbox"/> Vegetation. Type/% cover: <i>Click here to enter text.</i> |                                   |
| <input type="checkbox"/> Other. Explain: <i>Click here to enter text.</i> |   |                                   |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **The drainage is defined by a relatively wide (~150 feet) network of braids, though some of the channels are erosional features. Some headcutting and sloughing of banks was noted in short segments along particular braids. Historic sheet flow indicators were also noted in between channels (e.g. sediment deposition).**

Presence of run/riffle/pool complexes. Explain: **The entire reach of the Southeast Drainage within the review area is comprised of runs.**

Tributary geometry: **Relatively Straight**

Tributary gradient (approximate average slope): **8%**

(c) Flow:

Tributary provides for: **Ephemeral Flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: **The subject ephemeral arroyo likely experiences flashy, infrequent and low duration flows which are dependent on the intensity of individual storm events (i.e. summer monsoons). A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 1,002 CFS into the review area from the Southeast Drainage (See Supplemental Documentation)**

Other information on duration and volume: **Duration and volume of water is dependent on the individual storm event. The Federal Emergency Management Agency (FEMA) lists the subject drainage as a Zone AO floodplain management area. This zone describes areas subject to the 1-percent-annual-chance of shallow flooding (1-3 feet), and is usually in the form of sheet flow on sloping terrain. Floodplain management areas within Zone AO undergo detailed hydraulic analysis in which an average flood depth is assigned. The Southeast Drainage has been assigned an average flood depth of 2 feet (FEMA 2015).**

Surface flow is: **Discrete and Confined** Characteristics: **Flows are limited to the various channels within the drainage. During large storm events, flow could occur between channels as sheet flow.**

Subsurface flow: **No** Explain findings: **No evidence of subsurface flow noted.**

- Dye (or other) test performed: *Click here to enter text.*

**Tributary has (check all that apply):**

- Bed and banks
- OHWM<sup>6</sup> (check all indicators that apply):
- |   |   |
|---|---|
| <input type="checkbox"/> clear, natural line impressed on the bank      | <input type="checkbox"/> the presence of litter and debris  |
| <input checked="" type="checkbox"/> changes in the character of soil    | <input type="checkbox"/> destruction of terrestrial vegetation  |
| <input checked="" type="checkbox"/> shelving                            | <input type="checkbox"/> the presence of wrack line   |
| <input type="checkbox"/> vegetation matted down, bent, or absent        | <input type="checkbox"/> sediment sorting   |
| <input type="checkbox"/> leaf litter disturbed or washed away           | <input checked="" type="checkbox"/> scour   |
| <input checked="" type="checkbox"/> sediment deposition                 | <input type="checkbox"/> multiple observed or predicted flow events                                   |
| <input type="checkbox"/> water staining                                 | <input checked="" type="checkbox"/> abrupt change in plant community <i>Click here to enter text.</i> |
| <input type="checkbox"/> other (list): <i>Click here to enter text.</i> |   |

- Discontinuous OHWM.<sup>7</sup> Explain: **The western boundary of the review area lacked an OHWM, at the point where the drainage flows into the aforementioned concrete culvert. A small north-south oriented dirt road on the western boundary masks historic evidence of natural fluvial processes (See Photos).**

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

- |  |  |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by:              | <input type="checkbox"/> Mean High Water Mark indicated by:            |
| <input type="checkbox"/> oil or scum line along shore objects      | <input type="checkbox"/> survey to available datum;                    |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings;                            |
| <input type="checkbox"/> physical markings/characteristics         | <input type="checkbox"/> vegetation lines/changes in vegetation types. |

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

<sup>7</sup>Ibid.

- tidal gauges
- other (list): *Click here to enter text.*

**(iii) Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: **No water was present in the Southeast Drainage during the field survey. Water is likely turbid from upstream conditions (i.e. sands and small gravel) during flow events**  
 Identify specific pollutants, if known: **None known**

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

- Riparian corridor. Characteristics (type, average width): *Click here to enter text.*
- Wetland fringe. Characteristics: *Click here to enter text.*
- Habitat for:
  - Federally Listed species. Explain findings: *Click here to enter text.*
  - Fish/spawn areas. Explain findings: *Click here to enter text.*
  - Other environmentally-sensitive species. Explain findings: *Click here to enter text.*
  - Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

**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: # acres

Wetland type. Explain: *Click here to enter text.*

Wetland quality. Explain: *Click here to enter text.*

Project wetlands cross or serve as state boundaries. Explain: *Click here to enter text.*

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

Flow is: *Choose an item.* Explain: *Click here to enter text.*

Surface flow is: *Choose an item.*

Characteristics: *Click here to enter text.*

Subsurface flow: *Choose an item.* Explain findings: *Click here to enter text.*

Dye (or other) test performed: *Click here to enter text.*

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

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: *Click here to enter text.*

Ecological connection. Explain: *Click here to enter text.*

Separated by berm/barrier. Explain: *Click here to enter text.*

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

Project wetlands are *Choose an item.* river miles from TNW.

Project waters are *Choose an item.* aerial (straight) miles from TNW.

Flow is from: *Choose an item.*

Estimate approximate location of wetland as within the *Choose an item.* floodplain.

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: *Click here to enter text.*

Identify specific pollutants, if known: *Click here to enter text.*

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

- Riparian buffer. Characteristics (type, average width): *Click here to enter text.*
- Vegetation type/percent cover. Explain: *Click here to enter text.*
- Habitat for:
  - Federally Listed species. Explain findings: *Click here to enter text.*
  - Fish/spawn areas. Explain findings: *Click here to enter text.*
  - Other environmentally-sensitive species. Explain findings: *Click here to enter text.*
  - Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

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

All wetland(s) being considered in the cumulative analysis: *Choose an item.*

Approximately (#) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

Summarize overall biological, chemical and physical functions being performed: *Click here to enter text.*

### 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 TNWs.**  
Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

The Southeast Drainage, a single ephemeral arroyo, is included in this determination. It is located in the western foothills of the Sandia Mountains, Albuquerque, Bernalillo County, New Mexico. This arroyo has an approximate drainage area of 0.57 square miles and conveys flows resulting from major storm events from the eastern uplands. A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 1,002 CFS into the review area from the Southeast Drainage (See Supplemental Documentation). The physical characteristics of the drainage area is defined by raw land and existing residential developments. It originates as two distinct drainages in the Sandia Mountain foothills that converge approximately 0.53 river miles east of the review area. The total drainage length is approximately 3.50 river miles. The Southeast Drainage enters the east boundary of the review area as a single ephemeral arroyo, where it then braids throughout the review area. It passes through the review area in a braided and compound fashion, and terminates at its confluence with the Arroyo de Domingo Baca. A number of features within the review area were noted to be erosional features rather than channels. No OHWM was observed at the western end of the review area from any of the braids (See –Supplemental Documentation - Maps). A small north-south oriented dirt road in this area has altered natural physical characteristics, and masks historic evidence of natural fluvial processes. Immediately adjacent and west of the review area, the drainage is confined to a concrete culvert that transports water under Tramway Boulevard Northeast (NM State highway 556). It then enters a concrete trapezoidal channel that conveys water to Arroyo de Domingo Baca. Approximately 0.49 miles west of the subject drainage confluence with Arroyo de Domingo Baca, water is detained in the South Domingo Baca Dam. This is a detention dam, and allows water passage only during significant storm events in which a large volume of water is trapped. According to Lynn Mazur, Development Review Engineer with the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), up to 177 cubic feet per second (cfs) of water is released from South Domingo Baca Dam during periods of significant water detention (i.e.  $\geq$  the 100-year event). It is estimated that water begins to pass through the dam once 30 acre-feet of water is stored, which can occur on average approximately two times per year (L. Mazur, personal communication, 04/2015). However, the detention dam is primarily fed by the adjacent and much larger Arroyo de Domingo Baca.

The Southeast Drainage is typical of ephemeral arroyos found in the arid western region of the U.S., as its flows occur only during significant storm events and are flashy, infrequent, low-duration, and low-volume in nature. It is therefore reasonable to conclude that its drainage rarely reaches the Arroyo de Domingo Baca, based on the absence of a reliable OHWM on the western boundary of the review area.

Based on field investigations, including data sources (See Section IV below), the subject drainage does not possess a significant physical, chemical or biological nexus with the Rio Grande River, a TNW, because:

- It is unlikely that water present in the review area reaches the Rio Grande River, given the tributary's distance from the Rio Grande River (9.81 river miles) and its flashy, infrequent, low-duration and low-volume nature. Furthermore, no reliable OHWM could be delineated along the western boundary of the

review area. Any water that reaches the concrete culvert under Tramway Boulevard would likely be the result of a major or long-duration storm event (i.e. the  $\geq 100$  year storm event), as the drainage possesses extremely limited ability to convey flows into the Arroyo de Domingo Baca.

- Water from the subject tributary that reaches the Arroyo de Domingo Baca is detained within the South Domingo Baca Dam. As stated above, this detention dam allows water passage only during periods of significant water events/volumes. As evidenced by the Arroyo de Domingo Baca channel dimensions on the downstream end of the dam, the flows that eventually exit the dam are of low-volume, and rarely reach the Rio Grande (See Supplemental Documentation - Photos). When this occurs, the majority of the water is likely from the Arroyo de Domingo Baca, as this drainage is 3.5 times the size of the subject tributary.
- The tributary does not provide habitat for species that occur within/along the Rio Grande. The Rio Grande and its floodplain are characterized as riparian habitat, with mature cottonwood (*Populus* spp.) galleries and poor- to well-developed understories. The subject tributary is defined as the Arroyo Riparian vegetation type (Dick-Peddie 1993), dominated by Apache plume (*Fallugia paradoxa*), four-wing saltbush and various grasses. Of further consideration, there are approximately 6.5 miles of trapezoidal concrete channel between the review area and the Rio Grande River. This highly modified reach harbors no vegetation, and eliminates any potential biological connection to aquatic and non-aquatic species between the review area and Rio Grande River. The South Domingo Baca Dam further prevents a biological connection, as any aquatic organisms within flows would be trapped and remain in this structure.
- Based on tributary size and distance from the Rio Grande, the Southeast Drainage it is not likely to provide lifecycle support for fish species in the Rio Grande River. The tributary is insignificant in this regard to fish species when compared to the large area arroyos that feed the Rio Grande during storm events.
- Based on the speculative and insubstantial physical connection to the Rio Grande River, the subject tributary is not likely to be capable of transferring nutrients and organic carbons to the Rio Grande River to support food webs. Any potential nutrients or carbons flowing out of the review area would be trapped within the detention dam or lost in the large reaches of concrete channels.
- Based on the speculative and insubstantial physical connection to the Rio Grande River, the subject tributary is not likely to be capable of carrying pollutants to the Rio Grande River. Any potential pollutants flowing out of the review area would be trapped in the detention dam. No water quality data from the Domingo Watershed is available to prove any chemical connection (L. Mazur, personal communication, 05/2015), and the subject drainage is not listed on the New Mexico Environment Department (NMED), Surface Water Quality Bureau's (SWQB) 303(d) list of Impaired Waters (NMED 2015).
- Based on the above information, the subject tributary does not possess more than a speculative or insubstantial effect on the physical, chemical and/or biological integrity of the Rio Grande River.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** 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: *Click here to enter text.*

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: *Click here to enter text.*

**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), Or, # 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: *Click here to enter text.*

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: *Click here to enter text.*

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

Tributary waters: # linear feet # width (ft).

Other non-wetland waters: # acres.

Identify type(s) of waters: *Click here to enter text.*

3. **Non-RPWs<sup>8</sup> 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 a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

Tributary waters: # linear feet # width (ft).

Other non-wetland waters: # acres.

<sup>8</sup>See Footnote # 3.

Identify type(s) of waters: *Click here to enter text.*

**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 an RPW: *Click here to enter text.*
- 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 an RPW: *Click here to enter text.*

Provide acreage estimates for jurisdictional wetlands in the review area: # acres.

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

- 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 wetlands 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 wetlands in the review area: # acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: *Click here to enter text.*
- Other factors. Explain: *Click here to enter text.*

**Identify water body and summarize rationale supporting determination:** *Click here to enter text.*

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

- Tributary waters: # linear feet # width (ft).
- Other non-wetland waters: # acres.  
Identify type(s) of waters: *Click here to enter text.*
- Wetlands: # acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

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

**The subject drainage does not possess a significant physical, chemical or biological nexus with the Rio Grande River, a TNW, as rationalized below:**

- It is unlikely that water present in the review area reaches the Rio Grande River, given the tributary's distance from the Rio Grande River (9.81 river miles), coupled with its flashy, infrequent, low-duration and low-volume nature. In fact, no reliable OHWM could be delineated along the western boundary of the review area. Any water that reaches the concrete culvert under Tramway Boulevard would be the result of a major or long-duration storm event (i.e. the  $\geq 100$  year storm event). The drainage possess extremely limited ability to convey flows to the Arroyo de Domingo Baca.
- Water from the subject tributary that reaches the Arroyo de Domingo Baca is detained within the South

<sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

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

Domingo Baca Dam. As stated above, this detention dam allows water passage only during periods of significant water volumes. As evidenced by the Arroyo de Domingo Baca channel dimensions on the downstream end of the dam, most of the flows exiting the dam are of low-volume, and do not reach the Rio Grande (See Supplemental Documentation - Photos). Rarely do flows exiting the dam reach the Rio Grande River. When this occurs, the majority of the water is likely from the Arroyo de Domingo Baca, as this drainage is 3.5 times the size of the subject tributary.

- The tributary does not provide habitat for species that occur within/along the Rio Grande. The Rio Grande and its floodplain are characterized as riparian habitat, with mature cottonwood (*Populus* spp.) galleries and poor- to well-developed understories. The subject tributary is defined as the Arroyo Riparian vegetation type (Dick-Peddie 1993), dominated by Apache plume (*Fallugia paradoxa*), four-wing saltbush and various grasses. Of further consideration, there are approximately 6.5 miles of trapezoidal concrete channel between the review area and the Rio Grande River. This highly modified reach harbors no vegetation, and eliminates any potential biological connection to aquatic and non-aquatic species between the review area and Rio Grande River. The South Domingo Baca Dam further prevents a biological connection, as any aquatic organisms within flows would be trapped and remain in this structure.
- Based on tributary size and distance from the Rio Grande, it is not likely to provide lifecycle support for fish species in the Rio Grande River. The tributary is insignificant in this regard to fish species when compared to the large area arroyos that feed the Rio Grande during storm events.
- Based on the speculative and insubstantial physical connection to the Rio Grande River, the subject tributary is not likely to be capable of transferring nutrients and organic carbons to the Rio Grande River to support food webs. Any potential nutrients or carbons flowing out of the review area would be trapped within the detention dam or lost in the large reaches of concrete channels.
- Based on the speculative and insubstantial physical connection to the Rio Grande River, the subject tributary is not likely to be capable of carrying pollutants to the Rio Grande River. Any potential pollutants flowing out of the review area would be trapped in the detention dam. No water quality data from the Domingo Watershed is available to prove any chemical connection (L. Mazur, personal communication, 05/2015), and the subject drainage is not listed on the New Mexico Environment Department (NMED), Surface Water Quality Bureau's (SWQB) 303(d) list of Impaired Waters (NMED 2015).
- Based on the above information, the subject tributary does not possess more than a speculative or insubstantial effect on the physical, chemical and/or biological integrity of the Rio Grande River.

Other: (explain, if not covered above): *Click here to enter text.*

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):

Lakes/ponds: # acres.

Other non-wetland waters: # acres. List type of aquatic resource: *Click here to enter text.*

Wetlands: # 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 (i.e., rivers, streams): **845 linear feet, Varies (1-7) feet wide. (Southeast Drainage)**

Lakes/ponds: # acres.

Other non-wetland waters: # acres. List type of aquatic resource: *Click here to enter text.*

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 or on behalf of the applicant/consultant: **See Supporting Documentation - Maps.**

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps: *Click here to enter text.*

Corps navigable waters' study: *Click here to enter text.*

U.S. Geological Survey Hydrologic Atlas: **HUC 8 and 12 digit boundaries depicted on attached maps (Supporting Documentation).**

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name: **1:24k; NM-Sandia Crest**

USDA Natural Resources Conservation Service Soil Survey. Citation: **Soils within subject drainage consist of Embudo gravelly fine sandy loam, 0-5 percent slopes. These soils are typically found on terraces and have a parent**

material of alluvium derived from igneous and sedimentary rock. They rarely flood and have no frequency of ponding. They typically occur where the depth to water table exceeds 80 inches (NRCS 2015).

- National wetlands inventory map(s). Cite name: **Hawks Landing**
- State/Local wetland inventory map(s): *Click here to enter text.*
- FEMA/FIRM maps: **Southeast drainage within Zone AO: 1 percent-annual-chance of shallow flooding (2 feet). FIRMette map attached - Supporting Documentation.**
- 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): **NAIP 2011**
- or  Other (Name & Date): **Field Survey Photos. March 2015, April 2015**
- Previous determination(s). File no. and date of response letter: *Click here to enter text.*
- Applicable/supporting case law: *Click here to enter text.*
- Applicable/supporting scientific literature: *Click here to enter text.*
- Other information (please specify): *Click here to enter text.*

#### B. ADDITIONAL COMMENTS TO SUPPORT JD:

This Approved Jurisdictional Determination (AJD) form has been reviewed and approved by the U.S. Army Corps of Engineers, Albuquerque District, submitted by Sites Southwest, LLC, on behalf of their client, Panorama Homes, Inc., The Corps has made the determination that the Southeast Drainage, as discussed above, is non-jurisdictional on the basis of No Significant Nexus with a TNW.

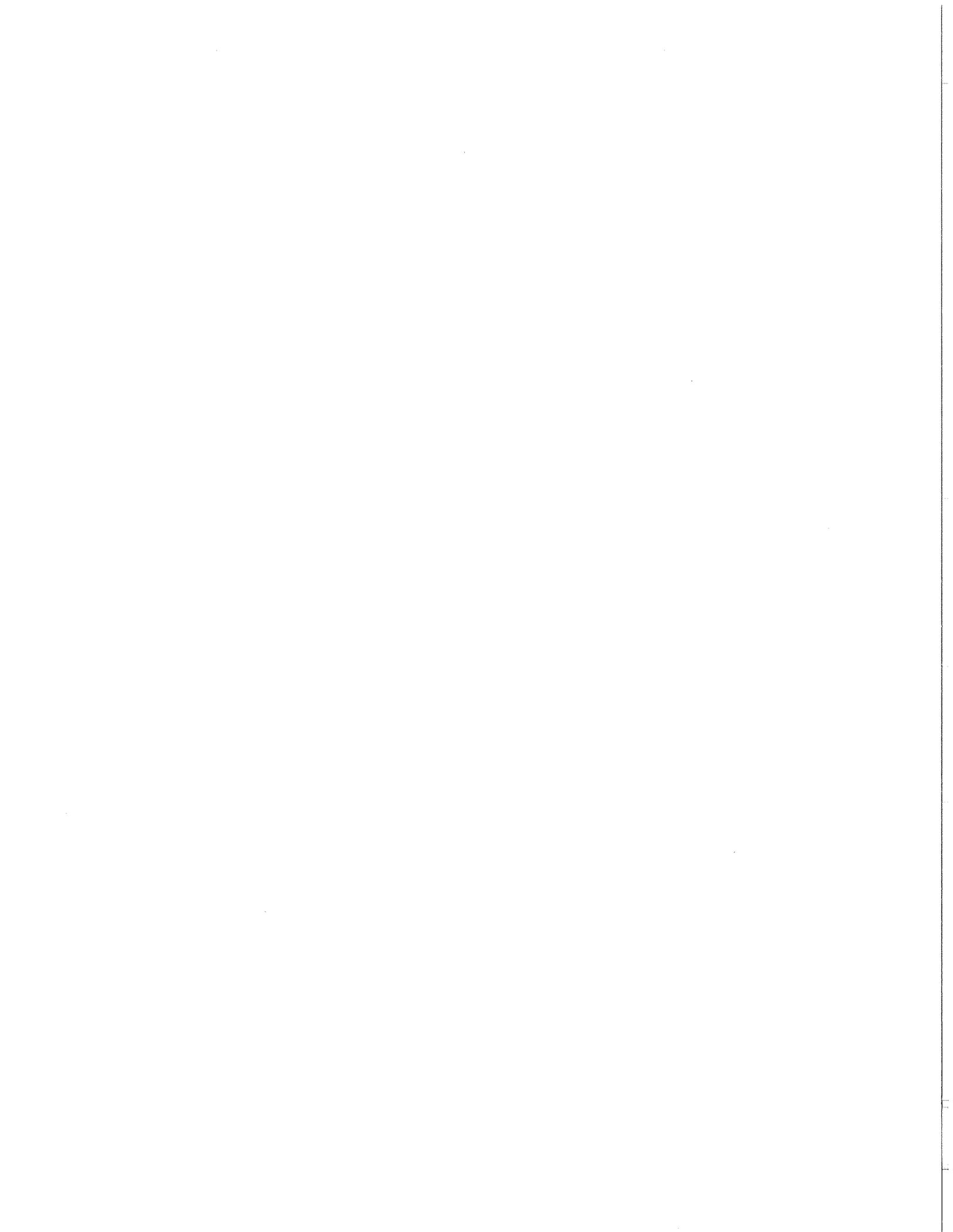
The Southeast Drainage is a natural drainage, located in the western foothills of the Sandia Mountains, Albuquerque, Bernalillo County, New Mexico. The review area is surrounded by developed residential subdivisions and is thus highly dissected. The significant arroyos surrounding the review area are mostly concrete-lined to accommodate increased sheet flow from impervious urbanized surfaces.

The Southeast Drainage has an approximate drainage area of 0.57 square miles and conveys flows resulting from major storm events (i.e. the  $\geq 100$  year flood) from the eastern uplands to the Arroyo de Domingo Baca. Annual rainfall for the general area is approximately 9.4 inches, with most occurring in the form of monsoonal events during summer months. The review area for the Southeast Drainage is approximately 0.16 miles in length, while the total length of the drainage is approximately 3.5 miles. The total length includes two upstream branches of the arroyo. The drainage enters the east boundary of the review area as a single ephemeral arroyo, where it then braids throughout the review area, before again becoming a single ephemeral arroyo on the west end of the review area. A number of the braids within the review area were noted to be erosional features rather than channels. A reliable OHWM was not observed near the western boundary of the review area. This suggests very infrequent flows within the drainage. Immediately adjacent and west of the review area, the drainage is confined to a concrete culvert, then a concrete channel that conveys water to the Arroyo de Domingo Baca. Approximately 0.49 miles west of the subject drainage's confluence with Arroyo de Domingo Baca, water is detained in the South Domingo Baca Dam. This detention dam was designed to release water only during significant storm events when a large volume of water is trapped (up to 30 acre-feet). Most of the water that reaches this dam is from the adjacent and much larger Arroyo de Domingo Baca.

Under normal circumstances, water from the Southeast Drainage that reaches the Arroyo de Domingo Baca remains within the South Domingo Baca Dam. However, some potential exists during a  $\geq 100$  year flood event for water within the dam to be released (maximum output 177 cfs) and flow west down Arroyo de Domingo Baca (L. Mazur, pers. communication 04/2015). However, most of the water within the dam originates from the Arroyo de Domingo Baca that is approximately 3.5 times the size (approximate drainage area 1.98 square miles) of the Southeast Drainage. Based on the observed channel dimensions of Arroyo de Domingo Baca downstream of the dam, flows rarely exit the dam as the channel located on the west side of the dam is extremely small when compared to the eastern, upstream side (See Supplemental Documentation - Photos).

In summary, the Southeast Drainage has neither a significant physical, biological, or chemical connection with the Rio Grande based on the distance between the review area and the Rio Grande River (9.81 miles), the presence of the South Domingo Baca Dam, and the highly modified nature of the downstream channels (i.e. concrete). Further, the flashy, infrequent, low-volume and low-duration nature of the tributary limits the potential of water reaching the Arroyo de Domingo Baca. No water quality data is available within the Domingo Watershed, and the Arroyo de Domingo Baca is not listed as an Impaired Water within the NMED SWQB 303 (d) list.

Based on the information above, the subject tributary does not possess more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of the Rio Grande River, a TNW.



**APPROVED JURISDICTIONAL DETERMINATION FORM  
U.S. Army Corps of Engineers**

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):** May 18, 2015
- B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** SPA-2015-00104-ABQ; Albuquerque District, North Drainage, Hawks Landing Residential Subdivision, Albuquerque, Bernalillo County, New Mexico
- C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: **New Mexico** County: **Bernalillo** City: **Albuquerque**  
Center coordinates of site (lat/long in degree decimal format): Lat. **35.175061796047814°**, Long. **-106.49476635389964°**  
Universal Transverse Mercator: **13 S 363886E, 3893480N**

Name of nearest waterbody: **Arroyo de Domingo Baca**  
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Rio Grande River**  
Name of watershed or Hydrologic Unit Code (HUC): **Rio Grande-Albuquerque, New Mexico. 13020203**

- Check if map/diagram of review area 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. *Click here to enter a date.*  
Date:
- Field Determination. **March 20, 2015, April 30, 2015**  
Date(s):

**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. *[Required]*

- Waters subject to the ebb and flow of the tide.
- Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: *Click here to enter text.*

**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. *[Required]*

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

**a. Indicate presence of waters of U.S. in review area (check all that apply):**<sup>1</sup>

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters<sup>2</sup> (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
- Impoundments 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-wetland waters:  
Wetlands: # acres.

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

Elevation of established OHWM (if known): *Click here to enter text.*

**2. Non-regulated waters/wetlands (check if applicable):**<sup>3</sup>

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **One non-jurisdictional ephemeral watercourse was identified in the review area (hereafter referred to as the North Drainage). This drainage originates from two distinct channels that converge before terminating near the west boundary of the review area (See Supplemental Documentation – Maps).**

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

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

<sup>3</sup> Supporting documentation is presented in Section III.F.

One of the contributing channels enters the review area from the north, and is a result of sheet flow runoff in an adjacent development where impervious surfaces (i.e. concrete and asphalt) exacerbate the runoff potential of the area. No Ordinary High Water Mark (OHWM) is associated with this channel where it enters the review area from the adjacent development. Approximately 105 feet south of this point, a channel becomes defined, which varies in width from 1-4 feet. It then progresses approximately 280 feet south-southwest before encountering a small terrestrial barrier, which prevents its flow and connection to the nearby Southeast Drainage (See Supplemental Documentation – Maps). At this point, water pools and percolates into the ground, as evidenced by characteristics such as soil surface cracks and sparse vegetation (See Supplemental Documentation – Photos). A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 9.58 cubic feet per second (CFS) into the review area from this channel (See Supplemental Documentation).

The other contributing channel enters the review area from the east. Similar to the above described channel, this channel possess no OHWM or other defined channel characteristics (i.e. bed, bank or change in vegetation composition) upon entering the review area. Approximately 370 feet west of the east review area boundary, the channel headcuts and becomes defined. The channel varies in width from 1-2 feet, and progresses an additional 166 feet westward before converging with the aforementioned channel. A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 21.26 cubic feet per second (CFS) into the review area from this channel (See Supplemental Documentation).

### **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: *Click here to enter text.*

Summarize rationale supporting determination: *Click here to enter text.*

##### **2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: *Click here to enter text.*

#### **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 tributary with perennial flow, skip to Section III.D.4.

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<sup>4</sup> 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:

Drainage area:

Average annual rainfall:

Average annual snowfall:

###### **(ii) Physical Characteristics:**

###### **(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through *Choose an item.* tributaries before entering TNW.

Project waters are *Choose an item.* river miles from TNW.

Project waters are *Choose an item.* river miles from RPW.

Project waters are *Choose an item.* aerial (straight) miles from TNW.

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

Project waters are *Choose an item*. aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW<sup>5</sup>:

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

- Tributary is:**  Natural  
 Artificial (man-made). Explain: *Click here to enter text.*  
 Manipulated (man-altered). Explain: *Click here to enter text.*

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

Average width:

Average depth:

Average side slopes: *Choose an item.*

**Primary tributary substrate composition (check all that apply):**

- Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover: *Click here to enter text.*  
 Other. Explain: *Click here to enter text.*

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: *Choose an item.*

Tributary gradient (approximate average slope):

(c) Flow:

Tributary provides for: *Choose an item.* Estimate average number of flow events in review area/year: *Choose an item.*

Describe flow regime:

Other information on duration and volume:

Surface flow is: Characteristics:

Subsurface flow Explain findings:.

- Dye (or other) test performed: *Click here to enter text.*

Tributary has (check all that apply):

- Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):  
 clear, natural line impressed on the bank  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour  
 sediment deposition  multiple observed or predicted flow events  
 water staining  abrupt change in plant community *Click here to enter text.*  
 other (list): *Click here to enter text.*  
 Discontinuous OHWM.<sup>7</sup> Explain:

If factors other than the OHWM 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

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

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

<sup>7</sup> Ibid.

other (list): *Click here to enter text.*

**(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 (type, average width): *Click here to enter text.*

Wetland fringe. Characteristics: *Click here to enter text.*

Habitat for:

Federally Listed species. Explain findings: *Click here to enter text.*

Fish/spawn areas. Explain findings: *Click here to enter text.*

Other environmentally-sensitive species. Explain findings: *Click here to enter text.*

Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

**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: # acres

Wetland type. Explain: *Click here to enter text.*

Wetland quality. Explain: *Click here to enter text.*

Project wetlands cross or serve as state boundaries. Explain: *Click here to enter text.*

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

Flow is: *Choose an item.* Explain: *Click here to enter text.*

Surface flow is: *Choose an item.*

Characteristics: *Click here to enter text.*

Subsurface flow: *Choose an item.* Explain findings: *Click here to enter text.*

Dye (or other) test performed: *Click here to enter text.*

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

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: *Click here to enter text.*

Ecological connection. Explain: *Click here to enter text.*

Separated by berm/barrier. Explain: *Click here to enter text.*

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

Project wetlands are *Choose an item.* river miles from TNW.

Project waters are *Choose an item.* aerial (straight) miles from TNW.

Flow is from: *Choose an item.*

Estimate approximate location of wetland as within the *Choose an item.* floodplain.

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: *Click here to enter text.*

Identify specific pollutants, if known: *Click here to enter text.*

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

Riparian buffer. Characteristics (type, average width): *Click here to enter text.*

Vegetation type/percent cover. Explain: *Click here to enter text.*

Habitat for:

Federally Listed species. Explain findings: *Click here to enter text.*

Fish/spawn areas. Explain findings: *Click here to enter text.*

Other environmentally-sensitive species. Explain findings: *Click here to enter text.*

Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

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

All wetland(s) being considered in the cumulative analysis: *Choose an item.*

Approximately (#) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

Summarize overall biological, chemical and physical functions being performed: *Click here to enter text.*

### 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 TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** 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: *Click here to enter text.*
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: *Click here to enter text.*

### 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), Or, # 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: *Click here to enter text.*
- 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: *Click here to enter text.*

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

- Tributary waters: # linear feet # width (ft).
  - Other non-wetland waters: # acres.
- Identify type(s) of waters: *Click here to enter text.*

3. **Non-RPWs<sup>8</sup> 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 a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- Tributary waters: # linear feet # width (ft).
  - Other non-wetland waters: # acres.
- Identify type(s) of waters: *Click here to enter text.*

<sup>8</sup>See Footnote # 3.

**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 an RPW: *Click here to enter text.*
- 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 an RPW: *Click here to enter text.*

Provide acreage estimates for jurisdictional wetlands in the review area: # acres.

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

- 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 wetlands 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 wetlands in the review area: # acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: *Click here to enter text.*
- Other factors. Explain: *Click here to enter text.*

**Identify water body and summarize rationale supporting determination:** *Click here to enter text.*

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

- Tributary waters: # linear feet # width (ft).
- Other non-wetland waters: # acres.  
Identify type(s) of waters: *Click here to enter text.*
- Wetlands: # acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

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

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): **921 linear feet length, Varies 1-6 feet wide**
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: *Click here to enter text.*

<sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

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

Wetlands: # 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 (i.e., rivers, streams):

Lakes/ponds: # acres.

Other non-wetland waters: # acres. List type of aquatic resource: *Click here to enter text.*

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 or on behalf of the applicant/consultant: **See Supporting Documentation - Maps.**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: *Click here to enter text.*
- Corps navigable waters' study: *Click here to enter text.*
- U.S. Geological Survey Hydrologic Atlas: **HUC 8 and 12 digit boundaries depicted on attached maps (Supporting Documentation).**
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **1:24k; NM-Sandia Crest**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **Soils within subject drainage consist of Embudo gravelly fine sandy loam, 0-5 percent slopes. These soils are typically found on terraces and have a parent material of alluvium derived from igneous and sedimentary rock. They rarely flood and have no frequency of ponding. They typically occur where the depth to water table exceeds 80 inches (NRCS 2015).**
- National wetlands inventory map(s). Cite name: **Hawks Landing**
- State/Local wetland inventory map(s): *Click here to enter text.*
- FEMA/FIRM maps: **North drainage within Zone X: outside of the 500-year floodplain. FIRMette map attached - Supporting Documentation.**
- 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **NAIP 2011**  
 or  Other (Name & Date): **Field Survey Photos. March 2015, April 2015**
- Previous determination(s). File no. and date of response letter: *Click here to enter text.*
- Applicable/supporting case law: *Click here to enter text.*
- Applicable/supporting scientific literature: *Click here to enter text.*
- Other information (please specify): *Click here to enter text.*

#### **B. ADDITIONAL COMMENTS TO SUPPORT JD:**

This Approved Jurisdictional Determination (AJD) form has been reviewed and approved by the U.S. Army Corps of Engineers, Albuquerque District, submitted by Sites Southwest, LLC, on behalf of their client, Panorama Homes, Inc., The Corps has made the determination that the North Drainage, as discussed above, is non-jurisdictional.

The North Drainage is a natural ephemeral arroyo that is located within the review area in the western foothills of the Sandia Mountains, Albuquerque, Bernalillo County, New Mexico. The review area is surrounded by developed residential subdivisions and is thus highly dissected. The significant arroyos in the area are commonly concrete-lined to accommodate increased sheet flow from impervious urbanized surfaces. This watercourse has an approximate drainage area of 1.8 acres and conveys flows resulting from major storm events from the eastern uplands. Annual rainfall for the general area averages 10 inches. As previously discussed, the North Drainage originates from two distinct channels that converge before terminating near the west boundary of the review area.

One of the contributing channels enters the review area from the north, and results from sheet flow runoff in an adjacent development where impervious surfaces (i.e. concrete and asphalt) exacerbate the runoff potential of the area. No Ordinary High Water Mark (OHWM) is associated with this channel where it enters the review area from the adjacent development. Approximately 105 feet south of this point, a channel becomes defined, and varies in width from 1-4 feet. It then progresses approximately 280 feet south-southwest before encountering a small terrestrial barrier which prevents its flow and connection to the nearby Southeast Drainage. At this point, water pools and percolates into the ground, as evidenced by characteristics such as soil surface cracks and sparse vegetation. A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 9.58 cubic feet per second (CFS) into the review area from this channel.

The other contributing channel enters the review area from the east. Similar to the above described channel, this channel possess no OHWM or other defined channel characteristics (i.e. bed, bank or change in vegetation composition) upon entering the review area. Approximately 370 feet west of the east review area boundary, the channel headcuts and

becomes defined. The channel varies in width from 1-2 feet, and progresses an additional 166 feet westward before converging with the aforementioned channel. A drainage study conducted by Mark Goodwin and Associates revealed a maximum flow potential of 21.26 cubic feet per second (CFS) into the review area from this channel.

It is therefore determined that the North Drainage possesses no physical surface connection with any jurisdictional water body, and is thereby determined to be non-jurisdictional. The maps and photographs attached within the Supporting Documentation support this determination.

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<<Project Manager Name>>  
<<Duty Title>>

[Click here to enter a date.](#)  
Date