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.

	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 25, 2019
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Sacramento District, Hunter Solar Project, SPK-2018-00792
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Utah County/parish/borough: Emery County City: Clawson Center coordinates of site (lat/long in degree decimal format): Lat. 39.1380191134038°, Long111.034378102466° Universal Transverse Mercator: 12 497028.93 4332093.46 Name of nearest waterbody: Cottonwood Creek
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: None Name of watershed or Hydrologic Unit Code (HUC): San Rafael, 14060009 ☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Project maps include areas that were added on after the initial JD request was received. ☑ 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: This form is for a significant nexus evaluation of waters on site associated with the unnamed wash. Separate forms will address the significant nexus evaluation of waters associated with Peavine Wash, isolated waters, preamble waters, and jurisdictional waters on site.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☑ Office (Desk) Determination. Date: June 25, 2019 ☐ Field Determination. Date(s):
SE	CTION II: SUMMARY OF FINDINGS
Α.	RHA SECTION 10 DETERMINATION OF JURISDICTION.
	ere are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in a 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:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
	ere are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. equired
	 1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 1 TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (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: linear feet, wide, and/or acres. Wetlands: acres.
	c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

^{2.} Non-regulated waters/wetlands (check if applicable):3

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below. ² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

☑ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Several non-jurisdictional features were delineated within the large study area, all of which are related to past or current farming/ agricultural activities on site. These features have resulted from a long history of hydrological manipulation and disturbance from agricultural practices. Ditches, berms, and pipes have altered or redirected irrigation water to different areas over time, creating or leaving behind abandoned flood irrigated fields, remnant stock ponds, and linear depressional areas that have developed OHWM or wetland characteristics.

Negative Significant Nexus (Unnamed Wash)

Pond 1 and Wetlands K and L are located in the northern portion of the study area associated with an unnamed wash, which is a linear wetland drainage feature that appears as Wetland M on the northeast corner of the study area and continues off site to the east. This drainage flows into Cottonwood Creek approximately 4.3 straight-line miles northeast of the study area.

Wetland L was created by an impoundment within a drainage swale that is slightly up-gradient and separated from the unnamed wash (Wetland M) by a 670-foot upland swale area. Pond 1, also created by an impoundment within this drainage, is 670 feet from Wetland L and 1,650 feet from the unnamed wash (Wetland M). Wetland K is a linear wetland drainage feature that remains in a topographically low area from past irrigation practices and is located 2,320 feet from the unnamed wash (Wetland M). Due to changes in irrigation practices, there is no longer sufficient water in these drainages to support a significant nexus determination between these features (Pond 1, Wetland K and L) and a TNW. The length of upland separation, relatively shallow grade, and the permeable soils on site would not allow flow from these features to reach the unnamed wash and continue downstream to a TNW, even if the berms were removed.

Cottonwood Creek drains into the San Rafael River, a tributary to the Green River. The Green River is the nearest TNW and its confluence with the San Rafael River is approximately 55 straight-line miles southeast of the study area. There is no apparent chemical, physical, or biological connection between the above features (Pond 1 and Wetlands K and L) and the Green River. Therefore, the Corps has determined that these features have no significant nexus to a TNW and are not jurisdictional under CWA Section 404.

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:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

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 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 waterbody⁴ 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)	Wa Dra Ave	neral Area Conditions: tershed size: 2 square miles inage area: 1,285 acres erage annual rainfall: 7.9 inches erage annual snowfall: inches	
(ii)	Physical Characteristics: (a) Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 3 tributaries before entering TNW.		
		Project waters are 30 (or more) river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 30 (or more) aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: N/A	
		Identify flow route to TNW ⁵ : Wetlands are adjacent to an unnamed wash, which flows into Cottonwood Creek, which flows into the San Rafael River, which flows into the Green River, the nearest TNW. Tributary stream order, if known: 1	
	(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain: Natural drainage feature (Wetland M) that has had artificial flows added from decades of irrigation practices in the surrounding area.	
		Tributary properties with respect to top of bank (estimate): Average width: 12 feet Average depth: 5 feet Average side slopes: 4:1 (or greater).	
		Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: OBL, 80% Other. Explain:	
		Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributary is a linear wetland drainage feature on site and becomes more of a channel feature off site to the east. Presence of run/riffle/pool complexes. Explain: None Tributary geometry: Meandering Tributary gradient (approximate average slope): 2-3%	
	(c)	Flow: Tributary provides for: Perennial Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: Flow is generally perennial with some minor ground water influence, higher flows during heavy irrigation or storm events, portions can dry up in times of drought. Other information on duration and volume:	

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

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

			Surface flow is: Discrete and confined. Characteris	tics:
			Subsurface flow: Unknown . Explain findings: Dye (or other) test performed:	
			Tributary has (check all that apply): ☐ Bed and banks ☐ OHWM ⁶ (check all indicators that apply): ☐ clear, natural line impressed on the bank ☐ changes in the character of soil ☐ shelving ☐ vegetation matted down, bent, or absent ☐ leaf litter disturbed or washed away ☐ sediment deposition ☐ water staining ☐ other (list): ☐ Discontinuous OHWM. ⁷ Explain:	 □ the presence of litter and debris □ destruction of terrestrial vegetation □ the presence of wrack line □ sediment sorting □ scour □ multiple observed or predicted flow events □ abrupt change in plant community
			If factors other than the OHWM were used to determi	ne 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 (list):	 ☐ Mean High Water Mark indicated by: ☐ survey to available datum; ☐ physical markings; ☐ vegetation lines/changes in vegetation types.
	(iii)	Cha cl in	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored haracteristics, etc.). Explain: Discolored, moderate tu a channel bottom helps moderate pollutants. artify specific pollutants, if known: High nutrient conten	rbidity due to highly erosive soils, high vegetative cover
	(iv)		logical Characteristics. Channel supports (check and Riparian corridor. Characteristics (type, average width Wetland fringe. Characteristics: Channel bottom is verificated from the Habitat for: ☐ Federally Listed species. Explain findings: ☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain ☐ Aquatic/wildlife diversity. Explain findings: Macro): getated with OBL, FACW species
2.	Cha	aract	teristics of wetlands adjacent to non-TNW that flow	directly or indirectly into TNW
	(i)		Asical Characteristics: General Wetland Characteristics: Properties: Wetland size: Wetland K= 0.33 acre, Wetland L= Wetland type. Explain: Saline wet meadow, oper Wetland quality. Explain: Moderate quality, low wetland quality with hydrology due to irrigation influence, presence of Project wetlands cross or serve as state boundaries.	n water veedy or invasive species cover, high fluctuation in of macro-invertebrates
		(b)	General Flow Relationship with Non-TNW: Flow is: No flow . Explain: Flow does not extend beyon	and wetland boundaries.
			Surface flow is: Discrete and confined Characteristics: Surface water does not extend be	eyond wetland boundaries.
			Subsurface flow: Unknown . Explain findings: Dye (or other) test performed:	

⁶A 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.

⁷lbid.

		(c)	☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland h ☐ Ecological connec ☐ Separated by berr		L and Pond 1 are separate	ed from tributary by berms and nd swale area.
		(d)	Project waters are 30 (or Flow is from: No flow.	to TNW (or more) river miles from T rmore) aerial (straight) mile cation of wetland as within t	es from TNW.	
	(ii)	Cha cl	haracteristics; etc.). Expla		ative cover in channel botto	ater quality; general watershed m helps moderate pollutants. tural fields up-gradient
	(iii)		Riparian buffer. Characte Vegetation type/percent of Habitat for:	plain findings: /-sensitive species. Explair	: DBL/FACW species	
3.	Cha	All ۱	wetland(s) being consider	adjacent to the tributary (i ed in the cumulative analysi are being considered in the	s: Pick List	
		For	each wetland, specify the	following:		
			Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

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? Low capacity for tributary to carry pollutants or flood waters to a TNW. Adjacent wetlands have no capacity except in extreme flood situations.
- 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? No habitat or life cycle functions provided in the tributary or wetlands 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? Tributary and adjacent wetlands have little to no capacity to support foodwebs in TNW.

 Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW? No other relationships present.

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

- 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:
- 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: Wetland L was created by an impoundment within a drainage swale that is slightly up-gradient and separated from the unnamed wash (Wetland M) by a 670-foot upland swale area. Pond 1, also created by an impoundment within this drainage, is 670 feet from Wetland L and 1,650 feet from the unnamed wash (Wetland M). Wetland K is a linear wetland drainage feature that remains in a topographically low area from past irrigation practices and is located 2,320 feet from the unnamed wash (Wetland M). Due to changes in irrigation practices, there is no longer sufficient water in these drainages to support a significant nexus determination between these features (Pond 1, Wetland K and L) and a TNW (Green River). The length of upland separation, relatively shallow grade, and the permeable soils on site would not allow flow from these features to reach the unnamed wash and continue downstream to a TNW, even if the berms were removed.

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, wide, 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: 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 wide. Other non-wetland waters: acres. Identify type(s) of waters:
3.	Non-RPWs ⁸ 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, wide. Other non-wetland waters: acres. Identify type(s) of waters:
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:
	☐ 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:

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⁸See Footnote # 3.

Provide acreage estimates for jurisdictional wetlands in the review area: acres. 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 jurisidictional. Data supporting this conclusion is provided at Section III.C. Provide acreage estimates for jurisdictional wetlands in the review area: acres. 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.9 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):10 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: Other factors. Explain: Identify water body and summarize rationale supporting determination: Provide estimates for jurisdictional waters in the review area (check all that apply): ☐ Tributary waters: linear feet, wide. ☐ Other non-wetland waters: acres. Identify type(s) of waters: ☐ 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: Wetlands K and L and Pond 1 were evaluated and no significant nexus to a TNW exists. ☐ Other: (explain, if not covered above): 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. Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: □ Wetlands: acres.

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

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

	where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): Lakes/ponds: 0.15 acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: 0.94 acres.
SE	CTION IV: DATA SOURCES.
Α.	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: Frontier Corporation USA Data sheets prepared/submitted by or on behalf of the applicant/consultant. Frontier Corporation USA Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: 1:24K; Castle Dale USDA Natural Resources Conservation Service Soil Survey. Citation: National wetlands inventory map(s). Cite name: State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Google Earth or Other (Name & Date): Frontier Corporation USA Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: