Final

Waters of the United States Delineation Report
Airways Golf Course
144th Fighter Wing, Fresno Air National Guard Base, Fresno, California

December 2023

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ACRONYMS AND ABBREVIATIONS

144 FW	144th Fighter Wing
ANG	Air National Guard
GPS	Global Positioning System
GSRC	Gulf South Research Corporation
MCRC	Marine Corps Reserve Center
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WOTUS	Waters of the United States

EXECUTIVE SUMMARY

Location

This Waters of the United States (WOTUS) Delineation Report provides the results of the delineation work conducted for the Airways Golf Course and adjacent abandoned airport infrastructure in Fresno, California located adjacent to the Fresno Air National Guard Base (ANG) and Fresno-Yosemite International Airport on May 4, 2023. The project area is one parcel totaling approximately 116 acres consisting of the Airways Golf Course (and a portion of abandoned airport infrastructure). The project area is bordered by East Airways Boulevard to the north, North Clovis Avenue to the east, and the Fresno-Yosemite International Airport runway system to the south and west.

Site Description

The project area is composed of a manicured golf course and abandoned airport infrastructure. According to the *Natural Resources Conservation Service Web Soil Survey of Fresno County, California* (United States Department of Agriculture [USDA] Natural Resources Conservation Service [NRCS] 2023), soils in the project area consist of Atwater sandy loam, 0 to 3 percent slopes (ArA) and Hanford sandy loam (He).

The predominant vegetation community within the project area is manicured lawn with scattered native and ornamental trees creating a savannah-like environment. A drainage feature on the Airways Golf Course was observed during the WOTUS delineation and was photographed and mapped (see Appendix A and Figure 5, respectively). Photographs of a retention basin and associated drainage located on the west side of the project area within the abandoned airport infrastructure were provided to Gulf South Research Corporation (GSRC) following the survey event. These photographs are located in Appendix A. Dominant vegetation includes Northern California walnut (*Juglans hindsii*), ponderosa pine (*Pinus ponderosa*), California-incense cedar (*Calocedrus decurrens*), and annual meadow grass (*Poa annua*).

Findings

Based on the routine field investigation, the project area does not contain any potential WOTUS, wetland or navigable waters. The Approved Jurisdictional Determination from the USACE, Sacramento District (Appendix C) concurs that no WOTUS are located within the project area.

1.0 INTRODUCTION

1.1 Property Access

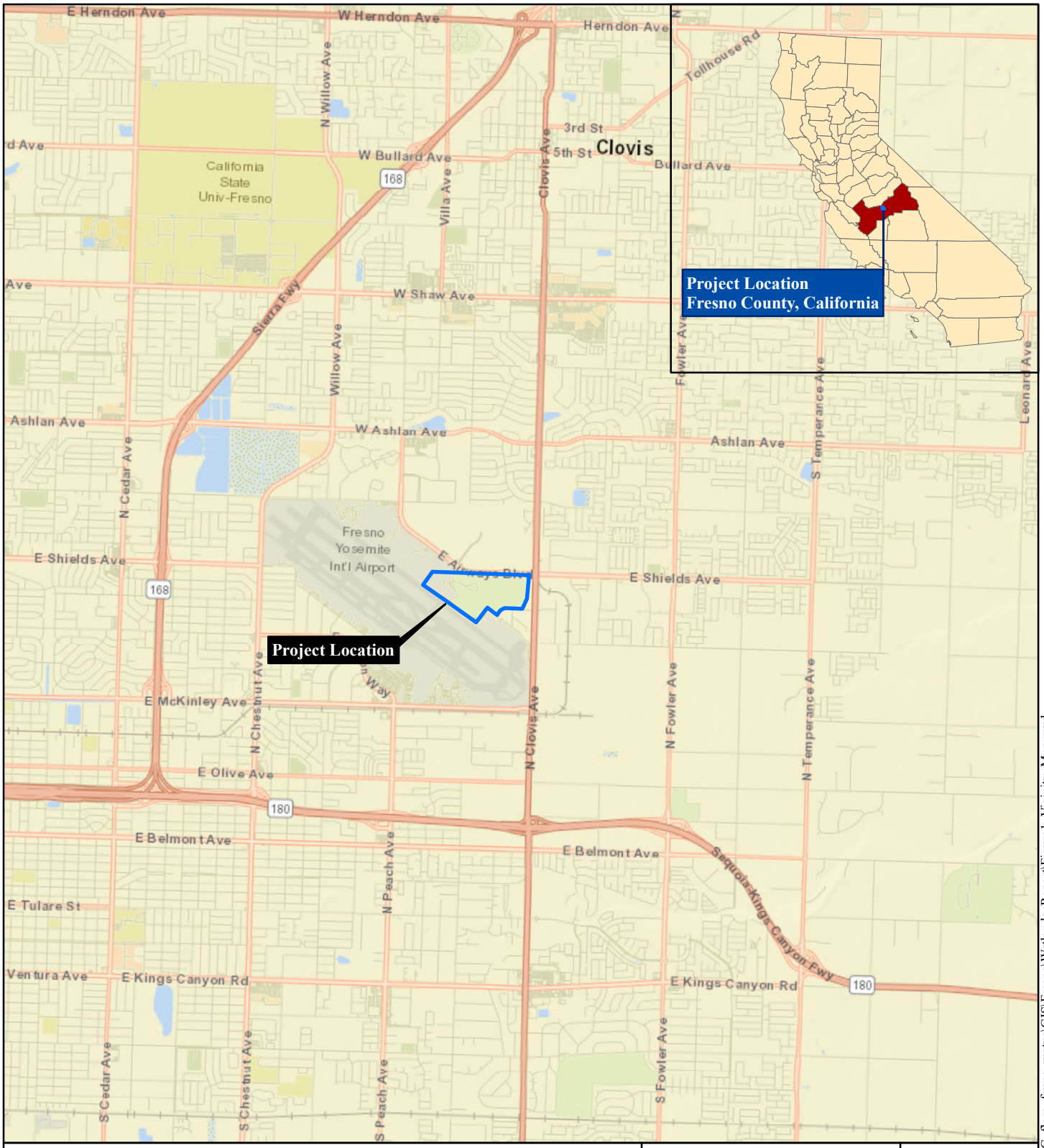
The project area is located on a property with controlled access. Consequently, access to the site was granted by the Airways Golf Course grounds crew. The GSRC biologist spoke with the grounds crew each morning about the WOTUS surveys and any other pertinent information.

1.2 Purpose of Report

GSRC was subcontracted by Cardno GS, Inc. to perform a WOTUS delineation on approximately 116 acres of land at the Airways Golf Course and adjacent abandoned airport infrastructure in Fresno, California located adjacent to the Fresno Air National Guard (ANG) Base and Fresno-Yosemite International airport (project area) (Figure 1). The purpose of this study was to identify and quantify potential areas within the project area that meet the criteria of WOTUS, including wetlands. The WOTUS delineation was conducted by a GSRC biologist on May 4, 2023. Photographs and data forms of sample plots are found in Appendix A and Appendix B, respectively. Appendix C contains the Approved Jurisdictional Determination from the USACE, Sacramento District.

1.3 Location and Study Area

The project area encompasses approximately 116 acres belonging to the Fresno-Yosemite International Airport, 94 acres is leased to the Airways Golf Course and the other 22 acres consists of abandoned airport infrastructure. The project area is bordered by East Airways Boulevard to the north, North Clovis Avenue to the east, and the Fresno-Yosemite International Airport runway system to the south and west. (Figure 2).



Legend

Survey Boundary (116.4 ac.)

N

0 0.5 1 Miles

0 0.5 1 Kilometers

May 2023

Figure 1. Vicinity Map

K:\Projects\80995001_Fresno_Barnes_ANG_flora_fauna_wotus\GIS\Fresno\Wetlands_Report\Figure1_Vicinity_Map.mxd

K:\Projects\80995001_Fresno_Barnes_ANG_flora_fauna_wotus\GIS\Fresno\Wetlands_Report\Figure2_Project_Area_Map.mxd

Figure 2. Project Area Map

2.0 RESEARCH OF AVAILABLE INFORMATION

Prior to conducting field work, desktop resources were consulted to provide background information for the project area. United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey maps were reviewed for baseline water feature and soils information (USDA NRCS 2023). U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping data was also reviewed to screen for potential wetlands or surface waters previously identified on-site (USFWS 2023).

2.1 Soils

The USDA NRCS web soil survey was reviewed to determine the presence of potentially hydric soils (USDA NRCS 2023). The rating system describes the percentage of mapped soil units that are rated as hydric or non-hydric within six classes: 100 percent, 66–99 percent, 33–65 percent, 1–32 percent, 0 percent, and not rated. According to the *NRCS Web Soil Survey of Fresno County, California*, only two soil series are represented in the project area: Atwater sandy loam, 0 to 3 percent slopes (ArA) and Hanford sandy loam (He). These soils are not listed as hydric by the USDA NRCS (USDA NRCS 2023) (Figure 3 and Table 1).

Table 1. Soil Map Units located within the Project Area

Map Unit	Map Unit Name	Acres in Project Area	% of Project Area	Hydric Soil Rating
ArA	Atwater sandy loam, 0 to 3 percent slopes	107.4	93	Non-Hydric
He	Hanford sandy loam	9	7	Non-Hydric

Source: NRCS 2023

2.2 National Wetlands Inventory

NWI data indicated the presence of one freshwater pond located adjacent to the Airways Golf Course clubhouse (USFWS 2023; Figure 4). Data from the NWI often represents the most obvious wetland features observed in aerial imagery and should not be utilized as the only method of determining the presence or absence of wetlands. No surface water or wetlands were observed at this location during the survey, rather a concrete drainage feature was located at this location (Appendix A – Photograph 11).

Legend

Survey Boundary (116.4 ac.)

Soils Daa

ArA, Atwater sandy loam, 0 to 3 percent slopes

Hc, Hanford sandy loam

N

0 250 500 Feet

0 60 120 Meters

May 2023

K:\Projects\80995001_Fresno_Barnes_ANG_flora_fauna_wotus\GIS\Fresno\Wetlands_Report\Figure3_Soils_Map.mxd

Figure 3. Soils Map

Figure 4. National Wetlands Inventory (NWI) Map

3.0 METHODS

GSRC conducted the WOTUS and wetland delineation in accordance with Section D, Subsection 2, of *Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (U.S. Army Corps of Engineers [USACE] 2008). References include the USDA NRCS *Web Soil Survey of Fresno County, California* (see Figure 3) (USDA NRCS 2023) and the *2020 National Wetland Plant List* (USACE 2020).

Field investigations were conducted to determine the presence and extent of potential jurisdictional WOTUS, including wetlands, in the project area. The site was traversed using meandering pedestrian transects and sample plots were established within each vegetation community. Wetland Delineation Data Forms – Arid West Region, as approved by Headquarters, USACE (USACE 2008) were completed for each sample plot (Appendix A). These data forms contain information regarding the presence or absence of hydric soils, hydrophytic vegetation, and wetland hydrology sufficient to support the establishment of a wetland boundary.

A soil pit was excavated to a depth of approximately 16 inches at each sample plot to confirm the soil series present on site. The soil pit remained open for at least 15 minutes to allow the pit to fill with water if present. Information recorded on the data form included soil colors (hue, value, and chroma as per the 2010 revised edition of the Munsell Color Chart [Munsell Color 2010]); size, abundance, and depth of mottles; as well as soil texture. Soil texture was determined using the “texture by feel” analysis.

Dominant vegetation was sampled by ocular estimation of percent cover. Species accounting for greater than or equal to 20 percent of the vegetation present were recorded as dominant for each stratum. Vegetation was recorded in the following strata: tree, sapling/shrub, herbaceous, and woody vine. Dominant vegetation was recorded on the data form, along with the indicator status as listed by the 2020 National Wetland Plant List, version 3.5 (USACE 2020). Once the dominant vegetation was recorded and evaluated, if more than 50 percent of the dominant vegetation had an indicator status of Facultative, Facultative Wetland, or Obligate, the hydrophytic vegetation criterion was recorded as positive.

Wetland hydrology indicators were also recorded at the sample plot as per USACE requirements. If at least one primary or two secondary indicators of wetland hydrology were present, the sample plot was classified as exhibiting wetland hydrology. Photographs provided in Appendix A show overviews of each sample plot and a representative soil profile at each sample plot. GSRC utilized a Trimble™ global positioning system (GPS) to obtain sub-meter accuracy coordinates of WOTUS, including wetland boundaries.

4.0 RESULTS

The project area consisted of a manicured golf course with some infrastructure consisting of a grounds crew shed and a clubhouse in addition to adjacent abandoned airport infrastructure on the west side of the project area. The predominant vegetation community within the project area is manicured lawn with scattered native and ornamental trees creating a savannah-like environment. A drainage feature observed during the WOTUS delineation was photographed and mapped (see Appendix A and Figure 5, respectively). Photographs of a retention basin (approximately 0.4 acre) and associated drainages (concrete drainage feature) located within the abandoned airport infrastructure were provided to GSRC following the survey (Appendix A). Although no sample points were taken at this location, NWI and NRCS soils maps support the likelihood of a lack of WOTUS or wetlands at this location. Further, the artificial and disturbed nature of the retention basin and associated concrete drainage appear to offer limited habitat for aquatic wildlife or support natural waters wetland processes. The dominant vegetation within the mowed, maintained community (Airways Golf Course) includes Northern California walnut (*Juglans hindsii*), ponderosa pine (*Pinus ponderosa*), California-incense cedar (*Calocedrus decurrens*), and annual meadow grass (*Poa annua*). The abandoned airport infrastructure was fenced and locked; therefore, GSRC did not have access to this portion of the project area for field surveys. However, based on aerial imagery and data gained from surveying the remainder of the project area, GSRC has concluded that no WOTUS exist within the abandoned airport infrastructure portion of the project area.

According to the *NRCS Web Soil Survey of Fresno County, California* (USDA NRCS 2023), soils in the project area consist of ArA and He (see Figure 3). The soils identified on the USDA NRCS web soils website matched those that were found during the survey effort.

The following sub-sections provide a characterization of the project area and a summary of data collected at each sample plot. Descriptions of sample plot attributes, including the vegetation community, soil conditions, and hydrologic conditions are also provided. Figure 5 is a map depicting sample plot locations.

4.1 Characterization of the Project Area

On-site surveys indicated the absence of WOTUS including wetlands. A total of two sample locations were evaluated across the project area (Figure 5), and neither sample point contained the necessary criteria to indicate the presence of a WOTUS, including wetlands. Data sheets for all sample plots are in Appendix B. A brief description of each sample plot is provided below.

4.1.1 Plot 1

Sample Plot 1 (P1) is located in the western portion of the project area between two golf fairways (see Figure 5). The dominant species in the tree stratum were Northern California walnut and ponderosa pine. No dominant species were observed in the sapling/shrub stratum. The dominant species in the herbaceous stratum was annual meadow grass. No dominant species were observed in the woody vine stratum. Approximately 67 percent of the dominant vegetation observed at this sample plot is classified as hydrophytic.

Figure 5. WOTUS Map

From 0 to 2 inches, the soil is sandy loam with a matrix color of 10YR 2/2. From 2 to 16 inches, the soil is sandy loam with a matrix color of 10YR 3/3. The soil profile resembles ArA, as mapped (see Figure 3). ArA is not listed on the National Hydric Soils List (USDA NRCS 2023), and field characteristics indicate that this soil is not functioning as a hydric soil. No primary or secondary wetland hydrology indicators were observed. This sample plot is not considered to be within a wetland due to the lack of positive hydrology indicators and hydric soil indicators (Appendix B). Representative photographs taken at the sample plot are provided in Appendix A.

4.1.2 Plot 2

Sample Plot 2 (P2) is located in the eastern portion of the project area between two golf fairways (see Figure 5). The dominant species in the tree stratum were California-incense cedar and ponderosa pine. No dominant species were observed in the sapling/shrub, herbaceous, or woody vine strata. Half (50 percent) of the dominant vegetation observed at this sample plot is classified as hydrophytic, and the prevalence index score was calculated to 3.5.

From 0 to 16 inches, the soil is sandy loam with a matrix color of 10YR 3/4. The soil profile resembles ArA, as mapped (see Figure 3). ArA is not listed on the National Hydric Soils List (USDA NRCS 2023). Field characteristics indicate that this soil is not functioning as a hydric soil. No primary or secondary wetland hydrology indicators were observed. This sample plot is not considered to be within a wetland due to the lack of positive hydrology indicators, hydric soil indicators, and hydrophytic vegetation (Appendix B). Representative photographs taken at the sample plot are provided in Appendix A.

5.0 CONCLUSION

The Airways Golf Course was investigated on May 4, 2023, to determine if WOTUS, including wetland conditions, are present within the project area. Two sample plots were assessed for the presence of wetlands within the Airways Golf Course. Neither of these sites exhibited the hydrology, hydrophytic vegetation, or hydric soils that characterize wetlands as defined by the *1987 Corps of Engineers Wetlands Delineation Manual* and the *2008 Regional Supplement: Arid West Region*. The abandoned airport infrastructure was fenced and locked; therefore, GSRC did not have access to this portion of the project area for field surveys. However, based on aerial imagery and data gained from surveying the remainder of the project area, GSRC is confident in stating that no WOTUS exists within the abandoned airport infrastructure portion of the project area.

This report documents the absence WOTUS including wetland with the within the 116-acre project area. The Draft Final WOTUS Report was submitted to the USACE (Sacramento District), along with a request for an Approved Jurisdictional Determination (JD), for their review and to obtain a written Approved JD. The Approved JD was received on December 11, 2023, and it states that approximately 0.4 acre of aquatic resources, consisting of 0.4 acre of a retention basin and a concrete drainage, are present within the project area. However, of those aquatic resources, the USACE determined that those two features totaling 0.4 acre are not waters of the U.S. regulated under Section 404 of the Clean Water Act of under Section 10 fo the Rivers and Harbors Act. The USACE's Approved JD is in Appendix C.

6.0 REFERENCES

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APPENDIX A
PHOTOGRAPHS

Photograph 1. Sample Point 1 – Soil Profile.

Photograph 2. Sample Point 1 – Facing North.

Photograph 3. Sample Point 1 – Facing East.

Photograph 4. Sample Point 1 – Facing South.

Photograph 5. Sample Point 1 – Facing West.

Photograph 6. Sample Point 2 – Soil Profile.

Photograph 7. Sample Point 2 – Facing North.

Photograph 8. Sample Point 2 – Facing East.

Photograph 9. Sample Point 2 – Facing South.

Photograph 10. Sample Point 2 – Facing West.

Photograph 11. Water Drainage Feature.

Photograph 12. Retention Basin Located Adjacent to the 144 FW of the MCRC.

Photograph 13. Another View of the Retention Basin at the 144 FW of the MCRC.

Photograph 14. Drainage Feature that connects to the Retention Basin at the 144 FW of the MCRC.

APPENDIX B
WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Airways Golf Course City/County: Fresno Sampling Date: 2023-05-04

Applicant/Owner: Fresno International Airport State: California Sampling Point: P1

Investigator(s): Beau Rapier Section, Township, Range: Section 29, Township 13 South, Range 21 East

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): C 17 Lat: 30.35990611 Long: -91.13512838 Datum: WGS 84

Soil Map Unit Name: Atwater sandy loam, 0 to 3 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation ✔, Soil _____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✔ No _____ Hydric Soil Present? Yes _____ No ✔ Wetland Hydrology Present? Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juglans hindsii	10	✔	FAC
2. Pinus ponderosa	10	✔	FACU
3.			
4.			
	20%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1. Poa annua	50	✔	FAC
2. Matricaria discoidea	5		FACU
3. Trifolium repens	5		FACU
4. Malva parvifolia	3		FAC
5.			
6.			
7.			
8.			
	63%	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	63	x 3 =	189
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	83 (A)		269 (B)

Prevalence Index = B/A = 3.2

Hydrophytic Vegetation Indicators:

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks:

SOIL

Sampling Point: P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 2/2	100					Sandy Loam	
2 - 16	10YR 3/3	100					Sandy Loam	
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Airways Golf Course City/County: Fresno Sampling Date: 2023-05-04

Applicant/Owner: Fresno International Airport State: California Sampling Point: P2

Investigator(s): Beau Rapier Section, Township, Range: Section 29, Township 13 South, Range 21 East

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): C 17 Lat: 30.35992918 Long: -91.13509699 Datum: WGS 84

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ✔, Soil ____, or Hydrology ✔ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✔ Hydric Soil Present? Yes ____ No ✔ Wetland Hydrology Present? Yes ____ No ✔	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** ✔

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Calocedrus decurrens	10	✔	FAC
2. Pinus ponderosa	10	✔	FACU
3.			
4.			
	20%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	20 (A)		70 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✔

Remarks:

SOIL

Sampling Point: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 3/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Vis ble on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C
APPROVED JURISDICTIONAL DETERMINATION

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

December 11, 2023

Regulatory Division (SPK-2023-00777)

Attn: Mr. Josh McEnany
8081 Innovation Park Drive
Baton Rouge, LA 70820-7404
joshm@gscorp.com

Dear Mr. McEnany:

We are responding to your November 28, 2023, request for an approved jurisdictional determination for the Airways Golf Course site. The approximately 116-acre project site is located in Section 29, Township 13 South, Range 21 East, MDB&M, Latitude 36.7779°, Longitude -119.70821°, 5440 E Airways Boulevard, Fresno, Fresno County, California.

Based on available information, we concur with your aquatic resources delineation for the site, as depicted on the enclosed September 2023 Waters of the United States Delineation Report Airways Golf Course drawings prepared by Gulf South Research Corporation (enclosure 1). Approximately 0.40 acres of aquatic resources, consisting of 0.40 acres of a retention basin and a concrete drainage feature, are present within the survey area. This letter verifies that the location and boundaries of wetlands were delineated consistent with the wetland definition at 33 CFR §328.3(c)(16), the 1987 *Corps of Engineers Wetlands Delineation Manual* (Wetlands Research Program Technical Report Y-87-1) and the applicable regional supplements; the location and boundaries of tidal waters conform with the high tide line defined at 33 CFR §328.3(c)(4); and the location and boundaries of non-tidal waters conform with the ordinary high water mark definition at 33 CFR §328.3(c)(7), Regulatory Guidance Letter 05-05, and any applicable regional guide.

Of these aquatic resources, we have determined that those two features totaling 0.40 acres are not waters of the U.S. regulated under Section 404 of the Clean Water Act or under Section 10 of the Rivers and Harbors Act. We are enclosing a copy of the *Approved Jurisdictional Determination Form* for your site (enclosure 2).

This approved jurisdictional determination is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. A *Notification of Appeal Process (NAP) and Request for Appeal (RFA) Form* is enclosed (enclosure 3). If you request to appeal this determination, you must submit a completed

RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESPD-PDO, 1455 Market Street, 2052B, San Francisco, CA 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.

In order for an RFA to be accepted by the Corps, we must determine that the form is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that the form was received by the Division Office within 60 days of the date of the NAP. It is not necessary to submit an RFA form to the Division Office unless you object to the determination in this letter.

We recommend that you provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

We appreciate feedback, especially about interaction with our staff and our processes.

Please refer to identification number SPK-2023-00777 in any correspondence concerning this project. If you have any questions, please contact Mr. Cody Barnes by email at cody.l.barnes@usace.army.mil, or telephone at (916) 557-7481. For program information or to complete our Customer Survey, visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

MICHAEL S. JEWELL
Chief, Regulatory Division

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Gulf South Research Corporation, Attn: Mr. Josh McEnany	File No.: SPK-2023-00777	Date: December 11, 2023

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
→	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at *http://www.usace.army.mil/cecw/pages/reg_materials.aspx* or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

U.S. Army Corps of Engineers
Mr. Cody Barnes
Sacramento District
Regulatory Division
1325 J Street, Room 1827
Sacramento, CA 95814-2922
Phone: (916) 557-7481, FAX 916-557-7803
Email: cody.l.barnes@usace.army.mil

If you only have questions regarding the appeal process you may also contact:

Travis Morse
Administrative Appeal Review Officer
U.S. Army Corps of Engineers
South Pacific Division
Phillip Burton Federal Building, Post Office Box 36023
450 Golden Gate Avenue
San Francisco, California 94102
Phone: 970-243-1199x1014, FAX: 971-241-2358
Email: W.Travis.Morse@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		