

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): March 24, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CEMVR-RD-2022-0159

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Iowa County/parish/borough: Dallas City: Waukee
Center coordinates of site (lat/long in degree decimal format): Lat. 41.610553° **N**, Long. -93.90551° **E**.
Universal Transverse Mercator: 15

Name of nearest waterbody: Sugar Creek

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

Name of watershed or Hydrologic Unit Code (HUC): 0710000616

☒ 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. Date: March 24, 2022

☐ Field Determination. 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: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are and are not** "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):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: width (ft) and/or acres.

Wetlands: 1.85 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): Wetlands 5-8 and 11-13 as shown on the delineation map are jurisdictional due to an established drainage pattern to the downstream waterway that serves as a positive significant nexus point.

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

- ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Wetlands 1-4 & 9-10 is 2.31 acres of isolated agricultural emergent wetland, 14.14 acres of non-jurisdictional pond, and 1,769 linear feet of non-jurisdictional drainage (grassed waterway) were determined to be present within the review area. Wetlands 9-10 are directly adjacent to the artificially constructed pond and are not shown to be present on past aerial images, prior to the ponds construction. Wetlands 1-4 are shown to occur within higher elevation**

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.

compared to the rest of the review area and lack defined drainage patterns to the downstream RPW. The on-site pond was artificially constructed sometime in the 90s within the upland agricultural field and is not directly connected to a jurisdictional tributary. The drainage feature is an upstream portion of grassed waterway that has shown variable conditions through past aerials. Most years the feature is shown as a distinct dry drainage way, in the current year it is shown as farmed over agricultural land..

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) **General Area Conditions:**

Watershed size: 14,119 acres

Drainage area: 0.92 square miles

Average annual rainfall: 35.6 inches

Average annual snowfall: 30.4 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 1-2 river miles from RPW.

Project waters are 20-25 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: No.

Identify flow route to TNW⁵: Wetland -> Non-RPW Grassed Waterway -> RPW Intermittent tributary -> RPW Sugar Creek -> RPW Raccoon River -> TNW Des Moines River.

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.

Tributary stream order, if known: .

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

Tributary is: ☐ Natural

☒ Artificial (man-made). Explain: Wetlands are drain via overland flow and sub-surface tile.

☒ Manipulated (man-altered). Explain: Established grassed waterway is a drainage feature which features sub-surface tile line which daylights into an intermittent tributary off-site.

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

Average width: feet

Average depth: feet

Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

☐ Silts

☐ Sands

☐ Concrete

☐ Cobbles

☐ Gravel

☐ Muck

☐ Bedrock

☐ Vegetation. Type/% cover:

☐ Other. Explain: .

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

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **Yes**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☐ Bed and banks

☐ OHWM⁶ (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):

☐ 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

☐ Discontinuous OHWM.⁷ 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:

☐ 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) **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: .

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.

⁷Ibid.

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

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

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: 1.85 acres

Wetland type. Explain: Farmed Emergent.

Wetland quality. Explain: Low due to the area being farmed over.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: .

Surface flow is: **Discrete and confined**

Characteristics: .

Subsurface flow: **Yes**. Explain findings: Tiles established throughout the agricultural field.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: Wetlands are connected to a nearby stream via established drainage patterns seen through past arials. These agricultural wetlands drain excess precipitation and tile run off through these drainage patterns directly into an established grassed waterway and further downstream into jurisdictional RPW Sugar Creek, leading to TNW Des Moines River.

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

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

Project waters are **15-20** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**

Estimate approximate location of wetland as within the **100 - 500-year** 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: Wetlands are farmed within an agricultural field.

Identify specific pollutants, if known: Most likely pollutants these wetland filter would be nitrite/nitrate and associated agricultural fertilizers.

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

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: Vegetative species designated FACW & OBL were annotated within these wetlands. When vegetation could not be established, it was assumed to be present due to the area containing hydric soils and wetland hydrology. .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

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

All wetland(s) being considered in the cumulative analysis: **7**

Approximately (1.85) 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>
WL 5	N	0.05 acres	WL 6	N	0.15 acres
WL 7	N	0.22 acres	WL 8	N	0.45 acres
WL 11	N	0.62 acres	WL 12	N	0.05 acres
WL 13	N	0.31 acres			

Summarize overall biological, chemical and physical functions being performed: These adjacent wetlands help to filter out agricultural contaminants from within the crop fields while also allowing overland sheet flow and sub-surface flow of water from the field to the grassed waterway. The grassed waterway is directly connected to a likely intermittent stream which flows to the nearby Sugar Creek which then outfalls into the Racoon River before ultimately depositing into the Des Moines River (TNW).

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: 1.) The Corps identified 1.85 acres of jurisdictional farmed emergent wetland (Wetland 5-8 & 11-13 as noted on the delineation map) that flow directly from wetland to a grassed waterway which then daylight into an intermittent stream. The intermittent stream directly connects to Sugar Creek. Following the flow path of Sugar creek, this RPW outfalls into the Racoon River. The Racoon River is a large perennial and known tributary to the Des Moines River (TNW). 2.) The relevant reach for this wetland complex extends from the delineated wetlands to the grassed waterway and the intermittent stream. We have determined that the point where the non-relatively permanent waterway connects with relatively permanent waterway unnamed tributary to Sugar Creek, defines the extent of our review area due to the guidance on page 41 of the USACE Jurisdictional Determination Form Instructional Guidebook with very similar conditions. 3.) Evaluated jurisdictional wetlands possess minor flood storage capacity and contaminant filtration capabilities. Wetlands store water during high precipitation events and filter out herbicides, pesticides, and other contaminants associated with a continued agricultural field. Biological contaminants such as detritus is also filtered from these wetlands. Due to the established drainage patterns these wetlands provide functional water filtration prior to flow reaching the non-RPW. This in turn helps to increase water quality further downstream and eventually of the TNW Des Moines River. These wetlands provide a chemical and biological significant nexus to the downstream TNW by helping to filter out associated contaminants which would otherwise flow freely into the adjacent RPW and decrease the immediate water quality of the area including the downstream TNW. 4.) Based on the above reasons listed, the Corps has determined Wetlands 5-8 & 11-13 (totaling 1.85 acres) to possess more than a speculative capacity to provide a substantial cumulative effect

on the integrity of downstream RPWs and TNW. 5.) The Corps determined that the delineated pond (14.14 acres) and wetlands 1-4 & 9-10 do not exhibit a significant nexus to the downstream TNW Des Moines River. The pond was artificially constructed in uplands sometime in the 90s and wetlands 9-10 are directly abutting the pond. If not for the ponds constructions, wetlands 9-10 would not be present on-site. The pond and associated wetland 9-10 are non-jurisdictional for the above mentioned reasons. Wetlands 1-4 occur within the agricultural field but lack a direct drainage patter to the downstream RPW that could feasibly serve as a positive significant nexus point. These wetlands occur within comparitavely high elevation compared with the other wetlands delineated and are likely low areas within the field that only pool water during periods of greater than average precipitation..

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

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

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

- ☐ TNWs: linear feet width (ft), 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 width (ft).
☐ Other non-wetland waters: acres.
 Identify type(s) of waters: .

3. **Non-RPWs⁸ 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: .

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: .

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.

⁸See Footnote # 3.

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: **1.85** 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 width (ft).
☐ 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: **2.31 acres of isolated agricultural emergent wetland, 14.14 acres of non-jurisdictional pond, and 1,769 linear feet of non-jurisdictional drainage (grassed waterway) were determined to be present within the review area. Wetlands 9-10 are directly adjacent to the artificially constructed pond and are not shown to be present on past aerial images, prior to the ponds construction. Wetlands 1-4 are shown to occur within higher elevation compared to the rest of the review area and lack defined drainage patterns to the downstream RPW. The on-site pond was artificially constructed sometime in the 90s within the upland agricultural field and is not directly connected to a jurisdictional tributary. The drainage feature is an upstream portion of grassed waterway that has shown variable conditions through past aerals. Most years the feature is shown as a distinct dry drainage way, in the current year it is shown as farmed over agricultural land..**
☐ 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 width (ft).
☐ 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.

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):

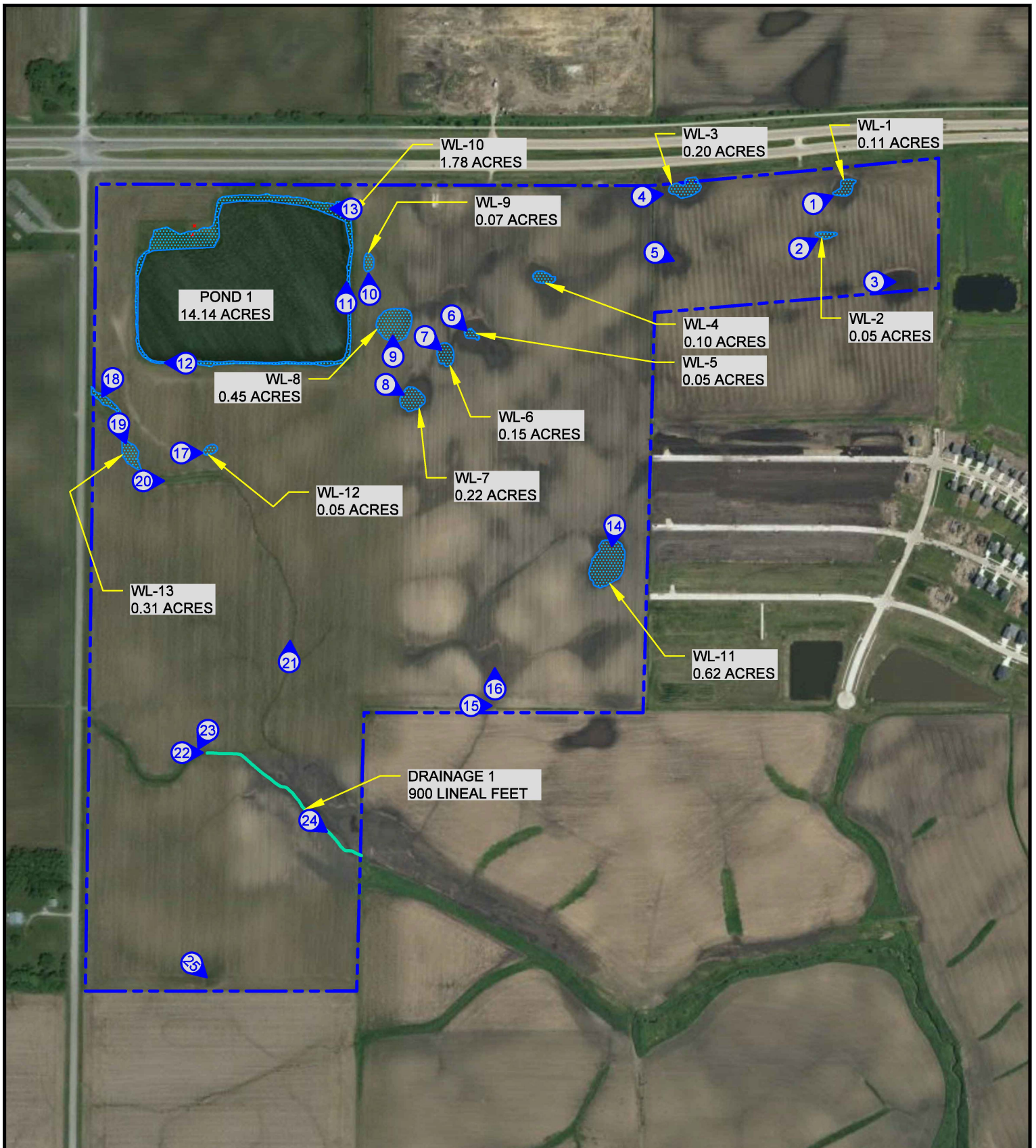
- ☒ Non-wetland waters (i.e., rivers, streams): **1,769** linear feet, **45** width (ft).
- ☒ Lakes/ponds: 14.14 acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: 2.31 acres.

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: .
- ☒ 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: .
- ☐ Corps navigable waters’ study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☐ 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 Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2017, 1990.
 - or ☒ Other (Name & Date): Lidar, Hillshade, Topographic.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

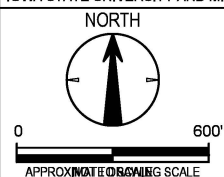
B. ADDITIONAL COMMENTS TO SUPPORT JD: 1.85 acres of jurisdictional wetland, 2.31 acres of isolated agricultural emergent wetland, 14.14 acres of non-jurisdictional pond, and 1,769 linear feet of non-jurisdictional drainage (grassed waterway) were determined to be present within the review area. Past aeriels show Wetlands 5, 6, 7, 8, 11, 12, & 13 as having defined flow/drainage patterns which deposit into the downstream jurisdictional stream and eventually the Des Moines River. These wetlands are likely low areas which accumulate precipitation and tile runoff which then follows the drainage pattern. Data points taken in other areas under review with suspected wetlands proved to be well drained and lacked necessary wetland vegetation or soils to adequately document the presence of wetland. The on-site pond was artificially constructed sometime in the 90s within the upland agricultural field and is not directly connected to a jurisdictional tributary. The drainage feature is an upstream portion of grassed waterway that has shown variable conditions through past aeriels. Most years the feature is shown as a distinct dry drainage way, in the current year it is shown as farmed over agricultural land.



LEGEND

- BOUNDARY OF ASSESSED AREA
- WETLAND AREA
- PHOTO LOCATION
- DRAINAGE

AERIAL PHOTO FROM IOWA GEOGRAPHIC MAP SERVER MAINTAINED BY IOWA STATE UNIVERSITY AND MIT - <http://cairo.gis.iastate.edu/map.html>



Project No.	Date:
08217271	12/15/2021
Project Mgr:	Drawn By:
ACC	JAL
File Name:	
08217271-01.dwg	
Layout Name:	
E5A	

Terracon
Consulting Engineers and Scientists

600 SW 7TH STREET DES MOINES, IOWA 50309
PH. (515) 244-3184 FAX. (515) 244-5249

WETLAND DELINEATION MAP (PHOTO LOCATIONS)

WETLAND DELINEATION
HOPE FARMS
U.S. HIGHWAY 6 & T AVENUE
WAUKEE, IOWA

EXHIBIT

5A





