

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): October 29, 2021

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: NAE-2021-00600 GRAVEL PIT SOLAR for Isolated/Preamble (Rose)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Connecticut County/parish/borough: Hartford City: Village of Scantic, Town of East Windsor

Center coordinates of site (lat/long in degree decimal format): Lat. 41.883681° **N**, Long. -72.554889° **W**.

Universal Transverse Mercator: 18

Name of nearest waterbody: Ketch Brook

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

Name of watershed or Hydrologic Unit Code (HUC): 01080205

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: 3 March 2021

Field Determination. Date(s): 23 July 2021

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 no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):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: 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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **The Review Area (Sea Enclosed Figure) includes a total of 19 potential aquatic resource areas that were reviewed for potential federal Clean Water Act jurisdiction. This Approved Jurisdictional Determination Form is being completed for six (6) resource areas (Wetlands 10, 11, 15, Ditch 1, Phase 9A and Process Pond 1) which appeared to meet the category of geographically isolated or preamble aquatic resource features. The other aquatic resource features are addressed under separate, but related, AJD and PJD for this site.**

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.

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: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

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

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

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.

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

- Tributary is:** Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: .

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):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> 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: Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: Pick List. Characteristics: .

Subsurface flow: Pick List. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

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

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

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

(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: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** 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:

Identify specific pollutants, if known:

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain 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: **Pick List**

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

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

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?
- 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: .
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.

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

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

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

7. Impoundments of jurisdictional waters.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: .

⁸See Footnote # 3.

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

¹⁰Prior 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 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: .
- Other: (explain, if not covered above): **See supporting discussion beginning on page 8, Section IV.**

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): **860** linear feet **3** width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: 2.13 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Phased gravel pit development compilation plan prepared by J.R. Russo Associates dated 1-23-2004 last revised through 11-8-2019; No Permit Required Request from VHB, Inc. dated February 18, 2021 submitted on March 1, 2021 including related Wetland Delineation figures 1-7 dated May 7, 2020, other figures, photographs, aerial photographs, topographic maps and associated chronologies; VHB Soil Scientists Report for Apothecaries Hall Road, Windsorville Road, Plantation Road and Wapping Road, East Windsor dated July 21, 2020 submitted on March 1, 2021; Figure No. 29 Prepared by VHB depicting CT DEEP 2016 Lidar Survey data for Apothecaries Hall Road Gravel Pit submitted on March 1, 2021.
- 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: Report on the Navigable Status of the Scantic River Connecticut, 1972 prepared for USACE..
- 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: USGS 1944, 1964, 2021 historical topographic maps accessed from topoview, various scales.
- USDA Natural Resources Conservation Service Soil Survey. Citation: USDA Web Soil Survey Report accessed on 2 February 2021.
- National wetlands inventory map(s). Cite name: USFWS NWI accessed on 16 August 2021.
- State/Local wetland inventory map(s): Town of South Windsor GIS.
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): See appended list of aerial photographs reviewed.
 - or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .

- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):

Corps staff relied on a variety of digital remote resources to conduct this review combined with site-specific delineation information submitted by the environmental consultant. In addition to the items specifically called out above we referred to 1) State of Connecticut, UCONN Magic, CT DCO 2016 Lidar Elevation data and maps, 2) USGS 1944, 1964 historical topographic maps accessed from USGS Topoview, 3) USACE Regulatory Viewer, USGS StreamStats Watershed Regression Analysis for the State of Connecticut accessed on 16 August 2021. Aerial photographs we reviewed and evaluated for our reviewed, included, but are not limited to:

- * Spring 1934 CTECO/CT State Library
- * 1962 NETROnline Historic Aerials
- * 1963 NETROnline Historic Aerials
- * 1970 CT State Library
- * 1986 CT DEEP/CT State Library
- * April 22, 1990 USGS
- * April 25, 1995 CT State Library
- * August 30, 2003 Google Earth, Maxar
- * December 31, 2003, USGS
- * Spring 2004 CT State Library
- * December 30, 2005, Google Earth, Maxar
- * July 2008 USDA NRCS
- * March 2012 CT ECO/State of Connecticut
- * 2014 CT ECO/State of Connecticut
- * April 20, 2016 CT ECO/State of Connecticut
- * September 23, 2017
- * June 16, 2018 CT ECO/State of Connecticut
- * September 18, 2019 CT ECO/State of Connecticut

B. ADDITIONAL COMMENTS TO SUPPORT JD: The project area identified on the submitted documents consists of seven parcels totalling 737.24 acres. The subject properties straddle both sides of a railroad corridor and are bounded by multiple local roadways (Cumberland Road, Apothecaries Hall Road, Plantation Road, Morris Road, Wapping Road and Rye Street). Parcel 048-65-007 has an eversource right-of-way bisecting it in a northwest to southeast direction. A perennial waterway, Ketch Brook (identified as Stream 1) flows in a easterly direction through parcels 025-49-017A and 048-65-007. Majority of parcel 048-65-007 consists of an active gravel mine with some wooded upland in the southeast corner of the parcel adjacent to Ketch Brook. The other parcels within the review area are dominated by agricultural fields mapped as Farmland Soils of Statewide Importance and undisturbed wooded corridor adjacent to Ketch Brook. is associated with installation of a large photovoltaic project which will result in the clearing of approximately 82.5 acres of forested upland, installation of access roads, equipment pads and electrical substations. The project may also include installation of a cable via horizontal directional drill under Ketch Brook.

The AJD prepared herein is for six (6) aquatic resource features in the Review Area identified as Wetlands 10, 11, 15, Ditch 1, Phase 9A and Process Pond 1 as depicted on the enclosed figures. This AJD form is one of three prepared for the project site/review area. Eleven wetland areas (Wetlands 2-9, 12 and 13, and Wetland 16) and one potential watercourse (IWC-1) have been included under a separate, but related, Preliminary Jurisdictional Determination. Two additional resource areas (Ketch Brook/Stream 1 and Wetland 1) were evaluated and presented in a separate, but related, Approved Jurisdictional Determination. Our review of Wetlands 10, 11, 15, Ditch 1, Phase 9A and Process Pond 1 indicate that they are situated on the landscape and do not possess requisite hydrology or function to support interstate or foreign commerce activity such as industrial water supply, recreational uses or marketable resources.

The resource areas subject to this AJD review are discussed below:

WETLAND 10 (0.30 acre in area) - Wetland 10 is located on the parcel identified as 027-49-017C Rye Street which is immediately north of Plantation Road. Although federal wetland delineation forms were not submitted for this feature, the information submitted by the wetland scientist provides sufficient evidence to document that the feature possesses hydrology, hydric soils and hydrophytic vegetation and thus would be considered a wetland. The feature is dominated by palustrine emergent vegetation rated FAC, FACW or OBL (*Scirpus cyperinus*, *Typha latifolia* and *Juncus effusus*). The historical aerial photographs depict that this feature was created sometime around 2006 in a farm field depression after stormwater discharge was likely diverted from the abutting parcel by construction of an impervious barrier and the placement of fill to capping an existing municipal landfill. The State of Connecticut 2016 Lidar shows the change in drainage at the site that created the wetland feature. Prior to closure of the landfill remote resources indicate that no wetland was present, and the area was being used for farm related purposes in 2003. Subsurface analysis of the resource area by the wetland scientist document that the soil layers have been compacted at/near the surface in silt loam creating an impervious structure that ponds water but does not possess connection to the water table. The submittal goes on to say that “any discharge from Wetland 10 would flow into the adjacent gravel pit south and west of the feature and infiltrate.” We conducted a review of historical aerial photographic documentation and the resource clearly depict the anthropogenic development of Wetland 10. The most recent aerial photograph (2019) and the 2016 bare earth lidar elevation resource corroborates site grade, elevation (160-feet) and lack of hydrological connectivity to jurisdictional surface water that discharge directly or indirectly in a TNW. Corps regulation (33 CFR 330.2 (e)) defines isolated waters as those non-tidal waters of the United States that are not part of a surface tributary system to interstate or navigable waters of the United States and not adjacent to such tributary waterbodies. Our review concluded that Wetland 10 is not proximal to, nor does not function as, a component of a surface tributary system that would meet the

definition of a jurisdictional (a)(1) through (a)(6) water. It does not meet the definition of an adjacent wetland in that it is not bordering, contiguous or neighboring to jurisdictional waters. In addition, the wetland exhibits no features which currently are or could be used by interstate or foreign travelers for commercial or recreational purposes, and therefore there is no discernible, reasonable nexus where the with interstate commerce. **CONCLUSION:** Wetland 10 is physically and geographically remote and does not possess a physical hydrological, chemical or biological relationship with a water of the United States.

WETLAND 11 (0.12 acre in area) - Wetland 11 is a small kidney shaped vegetated feature located on parcel 057-65-001 at Apothecaries Hall Road. It is located within the confines of an existing gravel pit that is in the later phases of mining operation. The wetland feature is situated at the face of a mined slope and abuts the toe of an existing filled Penn Central railroad corridor right-of-way. Although federal wetland delineation forms were not submitted for this feature, the information that was submitted by the wetland scientist provides sufficient evidence to show that the feature possesses hydrology, hydric soils and hydrophytic vegetation and thus would be considered a wetland. Wetland 11 presents as a palustrine emergent and scrub shrub depression that was created by excavation of sand and gravel and subsequent grading during abandonment and mine reclamation at this location. The information submitted shows that the vegetative community is dominated by FAC, FACW and OBL plant species such as *Salix. Spp.*, *Rosa multiflora*, *Cornus amomum*, *Onoclea sensibilis* and *Phragmites australis* and that the hydrology is best described as seasonally inundated. Aerial leaf off photographic documentation from 1934 to the late 1960's shows that Wetland 11 was absent on the pre-mining landscape. Prior to mining the area presents as upland at the edge of an agricultural field in relatively disturbed forest area. No evidence of hydrology is visible in these early photographs. The April 22, 1990 aerial photograph shows the location within agricultural field with no indicator of hydrology. Similarly, no hydrology is visible during postmining reclamation activities on a 2004 aerial photograph. It is not until a July 2, 2008 USDA photograph that an indicator of hydrology for Wetland 11 appears, putting its construction sometime between that date and September 30, 2006 (date of last aerial photograph). The aerial record is consistent with the compilation plan for the gravel pit prepared by J.R. Russo Associates dated 1-23-2004 which is revised through 4-9-2009 and depicts the reclamation of 14.1 acres on January 12, 2008. Corps regulation (33 CFR 330.2 (e)) defines isolated waters as those non-tidal waters of the United States that are not part of a surface tributary system to interstate or navigable waters of the United States and not adjacent to such tributary waterbodies. Our review concluded that Wetland 11 is not proximal to, nor does not function as, a component of a surface tributary system that would meet the definition of a jurisdictional (a)(1) through (a)(6) water. It does not meet the definition of an adjacent wetland in that it is not bordering, contiguous or neighboring to jurisdictional waters. In addition, the wetland exhibits no features which currently are or could be used by interstate or foreign travelers for commercial or recreational purposes, and therefore there is no discernible, reasonable nexus where the with interstate commerce. **CONCLUSION:** Wetland 11 is physically and geographically remote and does not possess a physical hydrological, chemical or biological relationship with a water of the United States.

WETLAND 15 (0.05 acre in area) - Wetland 15 is also located on the parcel identified as 027-49-017C Rye Street which is immediately north of Plantation Road. Only a small portion (southwest) of this wetland is located on the subject parcel within the project review area. The rest of the wetland is located on the regional landfill parcel. Although federal wetland delineation forms were not submitted for this feature, the information that was submitted by the wetland scientist provides sufficient evidence to document that the feature possesses hydrology, hydric soils and hydrophytic vegetation and thus would be considered a wetland. The feature is a palustrine forested wetland consisting of FAC, FACW and OBL plant species such as *Acer rubrum* in the overstory and *Onoclea sensibilis* in the understory. Like Wetland 10 the agent posits that the wetland was likely formed in upland soils or as toe-of-slope breakout where flow from a capped landfill is exposed to the ground surface. The State of CT 2016 lidar elevation and visual hillshade graphic shows a slight linear grade change at the base of slope. Hydrology is fleeting though the deepest portion of the small wetland, but the center inundated area possesses a thin layer muck surface. Review of historical aeriels did not provide any further evidence regarding the development of the wetland as either a natural or manmade feature. However, review of the lidar and the remote aeriels verify that Wetland 15 lacks hydrological connectivity to a surface water tributary system. Our review concluded that like Wetlands 10 and 11, Wetland 15 is not proximal to, nor does not function as, a component of a surface tributary system that would meet the definition of a jurisdictional (a)(1) through (a)(6) water. It does not meet the definition of an adjacent wetland in that it is not bordering, contiguous or neighboring to jurisdictional waters. In addition, the wetland exhibits no features which currently are or could be used by interstate or foreign travelers for commercial or recreational purposes, and therefore there is no discernible, reasonable nexus where the with interstate commerce. **CONCLUSION:** Wetland 15 is physically and geographically remote and does not possess a physical hydrological, chemical or biological relationship with a water of the United States.

PROCESS POND 1 (1.61 acre in area) - This feature is a gravel pit processing pond on parcel 057-65-001 within an existing, active sand and gravel mine at Apothecaries Hall Road. The construction footprint for Processing Pond 1 (PP1) is depicted on the phased gravel pit development compilation plan prepared by J.R. Russo Associates dated 1-23-2004 last revised through 11-8-2019. The 2009 compilation plan identified above depicts PP1 as a series of stormwater retention and settling ponds abutted by a wash plant equipment area circa 2008. The submittal indicates that PP1 was constructed in upland to retain stormwater runoff from steep slope cut and grades within the pit. Because of its landscape position and proximity within 200 linear feet of the perennial tributary known as Ketch Brook, we assessed historical aerial photographs, topographical maps and lidar bare earth model elevations to determine whether the pond was present as a natural aquatic resource wetland or waterway feature with hydrological connectivity to the tributary. Our review of remote historic aerial resources from 1934 through 1968 depict two consistent areas with indicators of potential hydrology on the landscape approximately 800 linear feet north of the PP1. In the aerial photos these features appear as physically remote isolated wetland without hydrological connectivity to a large aquatic system and are consistent with depictions of man-made excavated depressions in USGS topographic maps dated 1944 and 1964. These "wet" areas are clearly visible on the landscape within the mine in the 1990 and 1995 aerial photographs with indicators of saturation or surface water inundation. By 2005 these features no longer exist due to mining and backfilling and miscellaneous other open water detention or washing ponds appear throughout the pit. The preponderance of the evidence we evaluated, including aerial photographic documentation from 1934, 1962 and 1990, reasonably show that PP1 was not constructed in a wetland or water. We next evaluated the potential for the aquatic resource area for consistency of interpretation to the categories of waters in the November 13, 1986 pre-ample which are "generally, not considered jurisdiction." The historical development project plan indicates that PP1 was initially constructed to serve a dual purpose of stormwater control and process washing water. The 2019 compilation plan shows that this portion of the pit was reclaimed

and revegetated in the fall of 2017 and 2018 and that the steep slopes in the center part of the site were reclaimed in the fall of 2019. The February 22, 2020 aerial shows moderate revegetation. Thus, its current use for stormwater use is negligible. However, the 2020 aerial photograph also depicts an existing access road to the eastern corner of PP1 where a pump has been installed in the pond and a water withdrawal and washing station has been established. This use was identified on PP1 initial construction plans and the feature is still being used today in support of the ongoing sand and gravel mining operation. Consequently, we conclude that PP1 is consistent with the pre-ambulatory description of a non-jurisdictional feature that is a water filled depression created in dry land for the purpose of obtaining fill, sand or gravel and that it is still being used for its constructed purpose (it has not been abandoned). **CONCLUSION:** Process Pond 1 is not a jurisdictional water of the United States as it is not consistent with the term as defined under 33 CFR 328.3(a).

DITCH 1 (806 linear feet in length) - The feature identified as Ditch 1, is a manmade water conveyance that was constructed to convey stormwater runoff from upland within an existing gravel pit to an excavated "process pond" (PP1 above). The feature was constructed and is entirely contained within Apothecaries Hall Road parcel identified as 048-65-007. It is identified as a ditch because the information submitted and the remote resource evidence we evaluated both indicate that it was anthropogenically constructed or excavated solely to convey surface water from the high elevation areas of the existing gravel pit. We first assessed the NRCS Soil Survey Map and soil survey data from (SSURGO). This information was inconclusive as the manmade feature extends through a well drained soil map unit (Manchester gravelly sandy loam) that also has a minor hydric component commonly associated with drainageways and depressions (Walpole and Scitico) on the post-glacial landscape. Next, we evaluated remote historic aerial resources from 1934 to 2020. The 1934 and 1968 depict two consistent areas with indicators of potential hydrology on the landscape in the proximity of the ditch. In the aerial photos these features appear as physically remote isolated wetland without hydrological connectivity and are consistent with depictions of man-made excavated depressions evident in USGS topographic maps dated 1944 and 1964. These "wet" areas are most visible on the landscape within the gravel mine in the 1990 aerial photograph with indicators of saturation or surface water inundation. By 2005 these features no longer exist due to mining and backfilling and miscellaneous other open water detention or washing ponds appear throughout the pit. Consequently, the preponderance of the evidence, including aerial photographic documentation from 1934, 1962 and 1990, reasonably show that Ditch 1 was constructed within dry land. Our review of the historical aerial documentation revealed that Ditch 1 rarely, if ever, possess visible flow (it does not meet the requisite definition for relatively permanent flow) and that it does not possess a surface hydrological connection with, nor flow directly, or indirectly, into a TNW. **CONCLUSION:** Ditch 1 is not a jurisdictional water of the United States because it was excavated wholly in dry land, it does not possess relatively permanent flow and it does not contribute surface water, either directly or indirectly, to a TNW.

APOTHECARIES HALL ROAD GRAVEL PIT PHASE 9 WETLAND A (0.05 acre in area) - the original submittal requesting determination of potential jurisdiction for waters and wetlands within the review area the documentation indicates that this feature was closely investigated by soil scientists, but no wetland or watercourse was found in the area. The inquiry states that soils consisted of loamy sands and coarser material without hydromorphic features and delineated to be moderately well drained and well drained. Consequently, the soil scientists were unable to verify the presence of a wetland the feature. However, the requesting entity is seeking federal interpretation as to the status of the feature, if one existed, which is currently depicted on the phased gravel pit development compilation plan prepared by J.R. Russo Associates dated 1-23-2004 last revised through 11-8-2019. Staff reviewed various remote resources including lidar bare earth elevation, historical topographic maps, aerial photographs, and the US FWS National Wetland Inventory (NWI) maps to determine the potential presence of a wetland feature at this location. Pre-mining aerial photography failed to identify the presence of a reliable wetland indicator at the however, the 1964 topographic map does depict a depression at this location. Current aeriels also lack repeat any recurring indicator of wetland at this location. However, even if the wetland does still exist at this location the aerial photographic record and the 2016 bare earth lidar elevation resource corroborates site grade, elevation, and lack of hydrological connectivity to (a)(1) - (a)(6) waters. Thus, if Phase 9 Wetland A exists at the site it is not proximal to, nor does not function as, a component of a surface tributary system that would meet the definition of a jurisdictional (a)(1) through (a)(6) water. It does not meet the definition of an adjacent wetland in that it is not bordering, contiguous or neighboring to jurisdictional waters. In addition, the wetland exhibits no features which currently are or could be used by interstate or foreign travelers for commercial or recreational purposes, and therefore there is no discernible, reasonable nexus where the with interstate commerce. **CONCLUSION:** Phase 9 Wetland A is physically and geographically remote and does not possess a physical hydrological, chemical or biological relationship with a water of the United States.