Regulatory Program

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

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): June 17, 2019

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NAE-2019-00876

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:Connecticut County/parish/borough: New Haven City: Orange

Center coordinates of site (lat/long in degree decimal format): Lat. 41.256906, Long. -72.998242.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: ☒ attached ☐ in report/map titled .

☒ Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1): A Preliminary Jurisdictional Determination has been completed for multiple aquatic resource features within the Review Area.

D. REVIEW PERFORMED FOR SITE EVALUATION:

☐ Office (Desk) Determination Only. Date: .

☒ Office (Desk) and Field Determination. Office/Desk Dates: April 17, 2019 Field Date(s): April 25, 2019.

SECTION II: DATA SOURCES

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date:

•Wetland Inspection Map, Proposed Development, 161 Marsh Hill Road, Orange, Connecticut" prepared by Langan Engineers and All Points Technology Corporation and dated "January 2018" and "July 2018"

• Jurisdictional Determination Request Summary for Proposed Distribution Facility, 161 Marsh Hill Road, Orange, Connecticut dated March 27, 2019.

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

☒ Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date:

• Wetland delineation Inspection Report by All Points Technology Corporation dated March 22, 2018 referring to wetland delineation completed on January 22, 2018 and January 24, 2018.

☐ Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon: .

Revised Title/Date: .

☐ Data sheets prepared by the Corps. Title/Date: .

☐ Corps navigable waters study. Title/Date: .

☒ CorpsMap ORM map layers. Title/Date: Connecticut Permit Evaluation USGS NHD, USGS NED, Capitol Region Council of Governments (CRCOG), FEMA, NRCS, USFWS NWI accessed April 17, 2019.

☒ USGS Hydrologic Atlas. Title/Date: USGS NHD from The National Map accessed April 17, 2019.

☒ USGS, NHD, or WBD data/maps. Title/Date: USGS Historical Topographic Map accessed June 11, 2019 .

☒ USGS 8, 10 and/or 12 digit HUC maps. HUC number: 01100004 Quinnipiac CT.

☒ USGS maps. Scale & quad name and date: New Haven 7.5 Minute 1:24000 accessed on April 17, 2019.

☒ USDA NRCS Soil Survey. Citation: See below

USDA Soil Survey Maps forNew Haven Country accessed from Web Soil Survey on April 17, 2019

USDA SSURGO,New Haven County accessed from Soil Web, UC Davis on April 17, 2019.

☒ USFWS National Wetlands Inventory maps. Citation: Connecticut NWI Update, 2010 NAIP imagery delineated at 1:8000 with maximum zoom scale of 1:12000, accessed April 17, 2019 .
☒ State/Local wetland inventory maps. Citation: Connecticut Council of Government, CT DEEP CT ECO Maps accessed from CT Permit Evaluation GIS on April 17, 2019.
☒ FEMA/FIRM maps. Citation: NFHL FIRM 09009C0438H accessed June 6, 2019.
☒ Photographs: ☒ Aerial. Citation: See Below
-Federal Wetland Delineation Site Photos by Coril M. Rose obtained on April 25, 2019
- Google Earth 3/29/12 aerial photo with SSURGO Soil Layer accessed on April 22, 2019
-CT DEEP 2016 Spring 3-inch Color, March 11, 2016 through April 16, 2016
. or ☐ Other. Citation: .
☒ LiDAR data/maps. Citation: CRCOG, 2016 USGS LiDAR Bare Earth DEM, March 11, 2016 through April 16, 2016, Base Specification 1.2, OL2, 19.6 cm VVA, NAD83 and NAVD88.
☐ Previous JDs. File no. and date of JD letter: .
☒ Applicable/supporting case law: 2015 Clean Water Rule 33 CFR Part 328 and associated technical documentation including preamble.
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

SECTION III: SUMMARY OF FINDINGS

Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Water Droplet Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required

A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:
☐ "*navigable waters of the U.S.*" within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.
- **Complete Table 1 - Required**

NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "*waters of the U.S.*" within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. **Check all that apply.**
☐ (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))
- **Complete Table 1 - Required**

☐ This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.

☐ (a)(2): All interstate waters, including interstate wetlands.
- **Complete Table 2 - Required**

☐ (a)(3): The territorial seas.
- **Complete Table 3 - Required**

☐ (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.
- **Complete Table 4 - Required**

☐ (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
- **Complete Table 5 - Required**

☐ (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.
- **Complete Table 6 - Required**

☐ Bordering/Contiguous.
Neighboring:
☐ (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.
☐ (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.

☐ (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.

☐ (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☐ (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

C. NON-WATERS OF THE U.S. FINDINGS:

Check all that apply.

☐ The review area is comprised entirely of dry land.

☐ Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☐ Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

- **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required**

☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

☒ Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):

- **Complete Table 10 - Required**

☐ (b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.

☐ (b)(2): Prior converted cropland.

☐ (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

☐ (b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

☐ (b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).

☐ (b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.

☒ (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.

☐ (b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.[1]

☐ (b)(4)(iv): Small ornamental waters created in dry land.[1]

☒ (b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.

☐ (b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.[1]

[1] In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

☐ (b)(4)(vii): Puddles.[1]
☐ (b)(5): Groundwater, including groundwater drained through subsurface drainage systems.[1]
☐ (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.[1]
☐ (b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.
☐ Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).
- **Complete Table 11 - Required.**

D. ADDITIONAL COMMENTS TO SUPPORT AJD:

The "review area" is identified as an approximately 41.25 acre parcel identified in Town of Orange, Connecticut assessor records as Map 14, Block 1, Block 1A. The review area is situated east of Marsh Hill Road, south and southeast of commercial & industrial facilities and north of Interstate 95.

There are three wetland features (Wetlands 1, 3 and 4), two other water features (Waters 2 and 5) and one perennial tributary (Oyster River) within the Review Area. THIS APPROVED JURISDICTIONAL DETERMINATION IS BEING COMPLETED ONLY FOR WATERS 2 AND 5. The other aquatic resources within the Review Area (Wetlands 1,3,4 and the Oyster River) are being treated as potential jurisdictional aquatic resource features under a separate Preliminary Jurisdictional Determination (PJD) form. A PJD is being completed for these aquatic resource areas as they are located outside of the proposed project development area.

The Review Area, and the parcels that abut it, have a history of modification from historical agriculture and sand mining with extensive construction and realignment of woods roads, cart paths, piped or modified tributaries and/or manmade drainage and conveyance features and manipulated waters.

During desk review of the AJD request, we viewed historical aerial imagery of the site back to 1934. The earliest photos depict that the parcels were fully utilized for agricultural purposes, at that time, and that at least one of the ponds (Water 2) had been present. Subsequent photos depicted the parcel being used as a plant or tree nursery. A 1953 aerial photo also depicted Water 2 and recent disturbance for access to the pond in the form of an access road. The road persists in future aerials (1970, 1986 & 1991) which lends support to the assertion that the feature was excavated for agricultural purposes. However, photographs alone were not sufficient to determine if the water features had been constructed outside of wetland.

Review of historical topographic maps (1898) appeared to suggest that both Waters 2 and 5 are located in glacial sediment deposits (terrace) affiliated with Marsh Hill. Later topo maps point to either natural meander or manipulation of the Oyster River, and its floodplain, sometime between 1944 and 1947. This movement ultimately resulted in the river moving much closer to Water 2. This map also depicted a discrete hydrologic connection between Wetland 1 and the Oyster River. Consequently, a site visit was necessary in order to confirm the assertion that the subject features were constructed wholly in upland outside of wetland areas.

Jurisdictional Waters of the U.S.

Table 1. (a)(1) Traditional Navigable Waters

(a)(1) Waters NameN	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
N/A	N/A

Table 3. (a)(3) Territorial Seas

(a)(3) Waters Name	Rationale to Support (a)(3) Designation
N/A	N/A

Table 4. (a)(4) Impoundments

(a)(4) Waters Name	Rationale to Support (a)(4) Designation
N/A	N/A
N/A	N/A

Table 5. (a)(5)Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows	Tributary Breaks	Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
N/A	N/A	N/A	N/A	N/A

Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
N/A	N/A	N/A

Table 7. (a)(7) Waters

SPOE Name	(a)(7) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Table 8. (a)(8) Waters

SPOE Name	(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Non-Jurisdictional Waters

Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
N/A	N/A	N/A	
N/A	N/A	N/A	

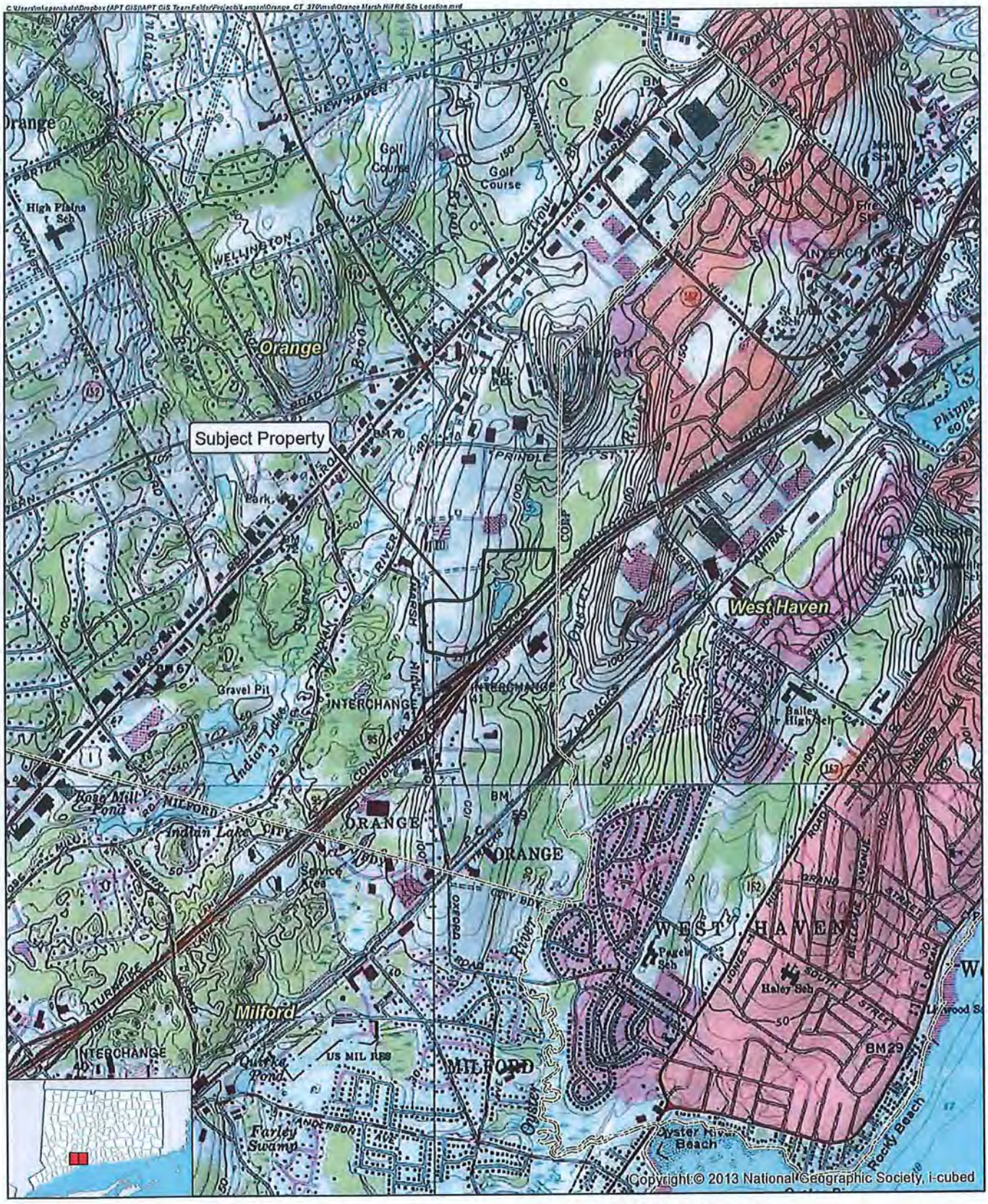
Table 10. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
Water 2	Water 2 is a 4,360 sq. ft. feature geographically isolated water feature of a depressional nature on a terrace. It is located at a point of mid-slope overlooking another manmade depression/ponded feature. Water 2 is best described as a deep (greater than 8 feet) concrete-lined manmade depression. The feature has an ordinary high water mark but it did not possess a vegetated wetland shoreline. The water feature itself was heavily-laden with filamentous algae. There is no evidence of a surface water connection between this feature and the pond downslope. There was also no evidence of a surface water connection between Water 2 and Water 5, another small manmade feature that is located approximately 75 feet upslope. However, investigation did identify the presence of remnant of an 8-inch diameter clay pipe which, anecdotally, had been constructed to connect this feature to Water 5. The Town of Orange Wetland Enforcement Officer (S. Allen) indicated that historically Water 2 was connected to Water 5 via pipe so that water could be taken from Water 2 in its use as an irrigation reservoir. Irrigation water was conveyed via this pipe to an excavated area (Water 5) where the pump had been situated. The character of Water 2 is such that it transitions immediately to upland vegetation and/or persistent invasive plants and the soils that did not exhibit hydric features. The developing topsoil and parent layer within 4 feet of Water 5 was brightly colored and possessed no indicators of hydric soil or hydrology. Our site visit confirmed that the feature was constructed out of upland, likely for irrigation-related agricultural purposes, and that it is likely driven by a combination of groundwater interception and/or

	precipitation. Based on the provided information and our site-specific review Water 2 appears to be an irrigation pond that meets the criteria for exclusion per (b)(4)(ii).
Water 5	Water 5 is a very small (2,170 sq. ft.) geographically isolated feature of a depressional nature on a terrace at the base of a steep slope. The slope progresses in an easterly direction from an industrial access road above and has a grade of between 1.5 to 1 and 2 to 1. The slope was manipulated in nature with large granitic boulders and construction debris evident (presumably from industrial road construction). Water 5 was about 2 feet deep and did not exhibit obvious connectivity to Water 2 approximately 30 feet downslope. It also did not possess any transitional aquatic features normally associated with surface water. The shoreline of Water 5, which did possess an ordinary high water mark was densely, but narrowly, vegetated with shrubs and emergent hydrophytic plants. However, there was no gradient or distance to the transition between wetland and upland vegetation, suggesting that the feature was not natural. Pit/auger analysis indicated that the substrate was most consistent in profile and color to Canton or Charlton well-drained soils. The developing topsoil and parent layer within 8 feet of Water 5 was poorly sorted, brightly colored and possessed no indicators of hydric soil or hydrology. Our site visit confirmed that the feature was constructed out of upland and corroborates the agent's AJD submittal which indicated that the shallowly excavated feature was constructed for the placement of an irrigation water pump between the original farm field and the irrigation reservoir identified as Water 2 above. Water 5's geomorphic position of construction at the base of till slope and short seasonal hydroperiod is consistent with a feature that has intercepted shallow gravity-flow groundwater. Based on the provided information and our site-specific review Water 5 appears to be an artificial water-filled depression excavated out of upland that meets the criteria for exclusion per (b)(4)(v).

Table 11. Non-Waters/Other

Other Non-Waters of U.S. Feature/Water Name	Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.
N/A	N/A



Legend

- Subject Property
- Municipal Boundary

Site Location Map

Proposed Distribution Center
161 Marsh Hill Road
Orange, Connecticut

LANGAN

Map Notes:
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Ansonia, CT (1984) and New Haven, CT (1984)
Map Scale: 1:24,000
Map Date: July 2018

2,000 1,000 0 2,000 Feet

ALL-POINTS TECHNOLOGY CORPORATION

SCANNELL PROPERTIES, LLC 161 MARSH HILL ROAD, ORANGE, CT NAE-2019-00876
MARCH 29, 2012 AERIAL

Source: Google Earth
Accessed: April 22, 2019
Created by: Cori M. Rose, USACE