



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT
1650 ARCH STREET
PHILADELPHIA, PENNSYLVANIA 19103-2004

CENAP-OPR

April 2, 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" (8 September 2023) ,¹ NAP-2024-00736-103.

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.² AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.³

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule"). On September 8, 2023, the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),⁴ the 2023 Rule as amended, as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

¹ While the Revised Definition of "Waters of the United States"; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

² 33 CFR 331.2.

³ Regulatory Guidance Letter 05-02.

⁴ USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

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1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

- i. Waterbody A, jurisdictional, Section 404
- ii. Waterbody B, jurisdictional, Section 404
- iii. Waterbody C, jurisdictional, Section 404
- iv. Waterbody D, non-jurisdictional
- v. Wetland 1, non-jurisdictional
- vi. Wetland 2, non-jurisdictional
- vii. Prong 1, non-jurisdictional
- viii. Agricultural Ditch 1, non-jurisdictional
- ix. Agricultural Ditch 2, non-jurisdictional
- x. Agricultural Ditch 3, non-jurisdictional
- xi. Agricultural Ditch 4, non-jurisdictional
- xii. Agricultural Ditch 5, non-jurisdictional
- xiii. Sub 1 Prong 1, non-jurisdictional
- xiv. Sub 2 Prong 3, non-jurisdictional
- xv. Agricultural Swale, non-jurisdictional

2. REFERENCES.

- a. "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule")
- b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 61964 (September 8, 2023))
- c. *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023)

3. REVIEW AREA. The review area encompasses approximately 66.86 acres and is located north of Old Mill Bridge Road, east of Bayard Road, and south of Camp Barnes Road in the Bayard area of Sussex County, Delaware (38.497401, -75.125524). The subject site is identified as Sussex County Tax Parcels 134-21.00-3.00, 134-21.00-4.00, 134-19.00-108.00, 134-19.00-110.00, 134-19.00-110.04, and 134-19.00-110.05. The delineation plans entitled, "Wetland Delineation Plan Camp Barnes Property"; prepared by Geo-Technology Associates; dated January 21, 2025; unrevised; 2 sheets, show the outlined review area of the property. A site visit was conducted November 5, 2024. The goal of the site visit was to confirm the delineation plans, specifically Wetland 1 and Wetland 2 were the aquatic resources that required field assessments. Data that was collected from the site visit includes

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observing Wetland 2 abutting Agricultural Ditch 2. See SECTION 8(b)(2) for additional discussion regarding the jurisdiction of Wetland 2.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Dirickson Creek. Dirickson Creek is influenced by the ebb and flow of the tide.
5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER. Waterbody B and Waterbody C flow outside the review area into Williams Canal Ditch, which flows into Dirickson Creek.
6. SECTION 10 JURISDICTIONAL WATERS⁵: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.⁶ N/A
7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended, consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.
 - a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A

⁵ 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

⁶ This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

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b. The Territorial Seas (a)(1)(ii): N/A

c. Interstate Waters (a)(1)(iii): N/A

d. Impoundments (a)(2): N/A

e. Tributaries (a)(3):

1. Waterbody A is a 936 linear foot intermittent tributary that runs along the southwest portion of the review area. Waterbody A terminates into Waterbody B. Additionally, Agricultural Ditch 2 and Agricultural Ditch 4 terminate into Waterbody A. During the site visit, dryer than normal conditions were observed, however there was still evidence of an ordinary high-water mark, and defined bed and bank. Historic aerial imagery shows Waterbody A containing standing or flowing water. Per the agencies' interpretation of relatively permanent tributaries, this tributary meets the relatively permanent standard due to having flowing or standing water year-round or continuously during certain times of the year.
2. Waterbody B is a 659 linear foot intermittent tributary that originates to the west of the review area and flows outside the review area to the east. Prong 1, Agricultural Ditch 3, and Waterbody A terminate into Waterbody B. During the site visit dryer than normal conditions were observed, however there was still evidence of an ordinary high-water mark, and defined bed and bank. Historic aerial imagery shows Waterbody B containing standing or flowing water. Per the agencies' interpretation of relatively permanent tributaries, this tributary meets the relatively permanent standard due to having flowing or standing water year-round or continuously during certain times of the year.
3. Waterbody C is a 799 linear foot perennial tributary that originates to the west of the review area and continues off the review area to the east. Waterbody C is part of the Williams Canal Tax Ditch system. During the site visit there was standing water within Waterbody C. Additionally, it exhibited an ordinary high-water mark and defined bed and bank. Per the agencies' interpretation of relatively permanent tributaries, this tributary meets the relatively permanent standard due to having flowing or standing water year-round or continuously during certain times of the year.

f. Adjacent Wetlands (a)(4): N/A

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g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).⁷
 1. Prong 1 is a 2,668 linear foot ephemeral feature that originates adjacent to Bayard Road directly west of the review area and terminates into Waterbody B within the review area. Prong 1 is part of the Williams Canal Tax Ditch system. During the site visit, Prong 1 did not contain any standing or flowing water. Prong 1 did not exhibit a continuous ordinary high water mark, and was excavated entirely in dry land, and drains only dry land. Prong 1 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
 2. Agricultural Ditch 1 is a 402 linear foot ephemeral feature that originates within the western portion of the review area adjacent to Bayard Road and terminates into Sub 1 Prong 1. Agricultural Ditch 1 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Ditch 1 was excavated entirely in dry land, and drains only dry land. Agricultural Ditch 1 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
 3. Agricultural Ditch 2 is a 945 linear foot ephemeral feature that originates within the review area and terminates into Waterbody A. Agricultural Ditch 2 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Ditch 2 was excavated entirely in dry land, and drains only dry land. Agricultural Ditch 2 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.

⁷ 88 FR 3004 (January 18, 2023)

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4. Agricultural Ditch 3 is a 210 linear foot ephemeral feature that originates to the west of the review area and terminates into Waterbody B. Agricultural Ditch 3 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Ditch 3 was excavated entirely in dry land, and drains only dry land. Agricultural Ditch 3 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
5. Agricultural Ditch 4 is a 487 linear foot ephemeral feature that originates within the review area and terminates into Waterbody A. Agricultural Ditch 4 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Ditch 4 was excavated entirely in dry land, and drains only dry land. Agricultural Ditch 4 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
6. Agricultural Ditch 5 is a 425 linear foot ephemeral feature that originates to the west of the review area and terminates into Sub 2 Prong 3. Agricultural Ditch 5 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Ditch 5 was excavated entirely in dry land, and drains only dry land. Agricultural Ditch 5 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
7. Sub 1 Prong 1 is a 1,119 linear foot ephemeral feature that originates from Agricultural Ditch 1 within the review area and terminates into Prong 1. Sub 1 Prong 1 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Sub 1 Prong 1 was excavated entirely in dry land, and drains only dry land. Sub 1 Prong 1 is excavated wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.
8. Sub 2 Prong 3 is a 92 ft ephemeral feature that originates within the review area and continues off the review area to the north. Sub 2 Prong 3 did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Sub 2 Prong 3 was excavated entirely in dry land, and drains only dry land. Sub 2 Prong 3 is excavated

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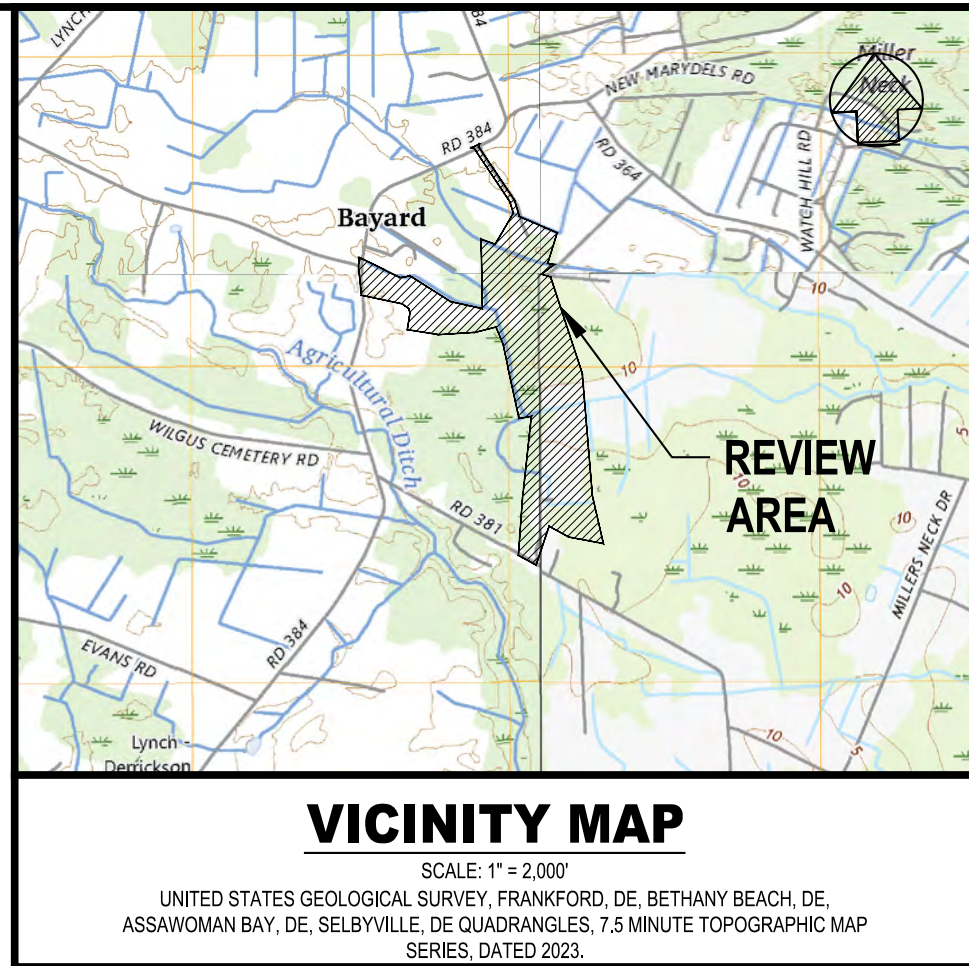
wholly in and draining only dry land and does not carry a relatively permanent flow of water, thereby meeting the definition of a (b)(3) Ditch.

9. Agricultural Swale is a 169 linear foot ephemeral feature that originates off the review area to the west and terminates into Prong 1. Agricultural Swale did not exhibit an ordinary high water mark, a defined bed and bank, nor relatively permanent flow. Additionally, Agricultural Swale was excavated entirely in dry land, and drains only dry land. Agricultural Swale is characterized by low volume, infrequent, or short duration flow, thereby meeting the definition of a (b)(8) Swale.
- b. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).
 1. Waterbody D is a 0.18 acre isolated open water pond entirely within the review area. Waterbody D was excavated in uplands between 1954 and 1961 and was likely used as a stock watering pond for agricultural purposes. Recently, it has not been utilized for agriculture. This aquatic feature does not have a continuous surface connection to an (a)(1) through (a)(3). Due to this feature being geographically separated from any (a)(1) through (a)(3) waters, it is not a jurisdictional feature.
 2. Wetland 1 is a 0.09 acre forested non-tidal wetland in the southeast portion of the review area and continues off the review area to the south. This wetland lacks a continuous surface connection to any other aquatic resources, leaving it geographically separated. For the portions within the review area, this was verified during the USACE site visit. For the portions of this wetland outside the review area, this was verified using aerial imagery and Lidar. Because Wetland 1 does not have a continuous surface connection to an (a)(1) through (a)(3) waters it does not meet the definition of an (a)(4) adjacent wetland.
 3. Wetland 2 is a 0.55 acre forested non-tidal wetland entirely within the review area. This wetland lacks a continuous surface connection to any other aquatic resources, leaving it geographically separated. Because Wetland 2 does not have a continuous surface connection to an (a)(1) through (a)(3) waters it does not meet the definition of an (a)(4) adjacent wetland.

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9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.
 - a. USACE Site Visit November 4, 2024.
 - b. Delineation Plan entitled “Wetland Delineation Plan Camp Barnes Property”; prepared by Geo-Technology Associates, Incorporated; dated January 21, 2025; unrevised; 2 sheets.
 - c. Delineation Report entitled “Wetland Delineation Report Camp Barnes Property Sussex County, Delaware”; prepared by Geo-Technology Associates, Incorporated; dated October 9, 2024.
 - d. Flow Path plan entitled “2024-00736_Flow_Path” prepared by USACE.
10. OTHER SUPPORTING INFORMATION. N/A
11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR’s structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



GENERAL INFORMATION

- LOCATION: SOUTH OF CAMP BARNES ROAD AND NORTH OF OLD MILL BRIDGE ROAD IN THE BAYARD AREA OF SUSSEX COUNTY, DELAWARE.
- PLAN PREPARED FOR: NVR, INC. 3045 ROYAL BOULEVARD, SUITE 1 DAGSBORO, DELAWARE 19939 ATTN: MR. TYLER WILKINE
- PLAN PREPARED BY: GEO-TECHNOLOGY ASSOCIATES, INC. (GTA) 3445-A BOX HILL CORPORATE CENTER DRIVE ARLINGTON, MARYLAND 21009 ATTN: MRS. KIMBERLEY MCNEW PHONE: 410-515-8466 EMAIL: KMCNEW@GTAENG.COM
- AREA OF REVIEW: 66.88 ACRES
- PROPERTY BOUNDARIES SHOWN HEREIN WERE OBTAINED FROM MARYLAND DEPARTMENT OF PLANNING. TOPOGRAPHIC INFORMATION SHOWN HEREON WAS OBTAINED THROUGH SOLUTIONS, IFPM. TREELINES WERE MODIFIED BASED ON FIELD OBSERVATIONS.
- THE SUBJECT SITE IS IDENTIFIED AS SUSSEX COUNTY TAX PARCELS: 134-21-00-3-00, 134-21-00-4-00, 134-10-00-100-00, 134-10-00-101-00, 134-10-00-110-04, AND 134-10-00-110-05.
- ACCORDING TO FEMA FIRM MAP NUMBERS 100502468K, 100502081K, 10050368K, AND 10050358K, ESTABLISHED MARCH 3, 2015, THE REVIEW AREA IS NOT LOCATED WITHIN A 100-YEAR FLOODPLAIN.
- SOILS SHOWN ON THIS PLAN WERE ADAPTED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY, ACCESSED ON OCTOBER 1, 2024.
- THE REVIEW AREA GENERALLY DRAINS EAST TOWARDS WILLIAMS CREEK.
- A WETLAND DELINEATION OF THE REVIEW AREA WAS PERFORMED BY GTA IN JUNE AND JULY 2024. WETLAND FLAG LOCATIONS WITHIN THE SUBJECT SITE WERE SURVEY LOCATED BY SOLUTIONS IFPM, LLC IN AUGUST 2024.
- AS A RESULT OF THE REVIEW OF THE REVIEW AREA, IT IS GTA'S PROFESSIONAL OPINION THAT THERE ARE WATERS OF THE U.S., INCLUDING WETLANDS, PRESENT WITHIN THE REVIEW AREA.
- GTA'S CONCLUSIONS REGARDING THIS REVIEW AREA HAVE BEEN BASED ON OBSERVATIONS OF EXISTING CONDITIONS, PROFESSIONAL EXPERIENCE, AND GENERALLY ACCEPTED PROFESSIONAL ENVIRONMENTAL PRACTICE. UNDER SIMILAR CIRCUMSTANCES, SEASONAL VEGETATION CYCLES AND FLUCTUATIONS IN PRECIPITATION OR WEATHER CONDITIONS CAN RESULT IN DIFFERENCES IN THE PERCEPTION OF HYDROLOGIC CONDITIONS AND THE PRESENCE OF PREDOMINANTLY HYDROPHYTIC VEGETATION, WHICH CAN ALTER GTA'S EVALUATION OF WETLANDS/WATERBODIES.
- IT IS IMPORTANT TO NOTE THAT THIS EVALUATION IS GTA'S PROFESSIONAL OPINION ONLY. DECISIONS REGARDING THE OFFICIAL JURISDICTIONAL STATUS OF WETLANDS/WATERBODIES ARE MADE BY FEDERAL, STATE, AND/OR LOCAL REGULATORY AGENCIES.
- THIS PLAN WAS PREPARED BY GTA FOR THE SOLE AND EXCLUSIVE USE OF NVR, INC. ANY REPRODUCTION OF THIS PLAN BY ANY OTHER PERSON WITHOUT THE EXPRESSED WRITTEN PERMISSION OF GTA AND NVR, INC. IS UNAUTHORIZED, AND SUCH USE IS AT THE SOLE RISK OF THE USER.

APPROXIMATE SIZE OF WATERBODIES

WATERBODY	APPROXIMATE LENGTH	APPROXIMATE LENGTH
WATERBODY A	690 LF	5,968 SF (0.14 AC)
WATERBODY B	690 LF	5,055 SF (0.18 AC)
WATERBODY C	799 LF	8,622 SF (0.20 AC)
WATERBODY D		7,714 SF (0.18 AC)
TOTAL	2,344 LF	30,359 SF (0.70 AC)

APPROXIMATE AREA OF WETLANDS

WETLAND	APPROXIMATE AREA
WETLAND 1	4,000 SF (0.09 AC)
WETLAND 2	24,018 SF (0.55 AC)
TOTAL WETLAND AREA	28,018 SF (0.64 AC)

SOILS TABLE

SYMBOL ¹	NAME/DESCRIPTION ¹	HYDRIC SOIL ²	HYDRIC COMPONENT ²	PERCENT OF MAPPING UNIT ²	POSITION IN LANDSCAPE ²
AsA	ASKECKSY LOAMY SAND, 0 TO 2 PERCENT SLOPES	YES	ASKECKSY, UNDRAINED	45	FLATS
			ASKECKSY, DRAINED	30	FLATS
			HURLOCK, DRAINED	10	FLATS
HmAd	HAMMONTON LOAMY SAND, 0 TO 2 PERCENT SLOPES, NORTHERN TIDEWATER AREA	YES	MULLICA, UNDRAINED	5	FLATS
			HURLOCK, DRAINED	5	DEPRESSIONS, FLATS
HpA	HENLOPEN LOAMY SAND, 0 TO 2 PERCENT SLOPES	NO	-	-	-
HuA	HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES	YES	HURLOCK, UNDRAINED	39	FLATS
KsA	KLEJ LOAMY SAND, 0 TO 2 PERCENT SLOPES	YES	HURLOCK, DRAINED	5	FLATS
			BERRYLAND, DRAINED	5	FLATS
MmA	MULLICA MUCKY SANDY LOAM, 0 TO 2 PERCENT SLOPES	YES	MULLICA, UNDRAINED	50	FLATS
			MULLICA, DRAINED	30	FLATS
			HURLOCK	10	FLATS
			BERRYLAND	10	FLATS
MuA	MULLICA-BERRYLANDS COMPLEX, 0 TO 2 PERCENT SLOPES	YES	MULLICA, DRAINED	28	FLATS
			BERRYLAND, DRAINED	24	FLATS
			MULLICA, UNDRAINED	16	FLATS
			BERRYLAND, UNDRAINED	14	FLATS
			ASKECKSY, DRAINED	5	FLATS

¹ UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, SUSSEX COUNTY, DELAWARE, SOIL SURVEY DATA VERSION 20, DATED AUGUST 2024.
² UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, HYDRIC SOILS LIST BY STATE, AVAILABLE AT https://efotgl.science.usda.gov/representations/public/state_list_wetlands/, HYDRIC_SOILS_REPORT_DYNAMIC_DATA.XTBL, AND ACCESSIBLE ON OCTOBER 1, 2024.

LEGEND

- EX. REVIEW AREA
- EX. SOIL BOUNDARY
- EX. TREELINE
- EX. INTERMITTENT TAX DITCH
- EX. PERENNIAL TAX DITCH
- EX. NON TIDAL WETLAND
- EX. FRESHWATER POND
- EX. PROPERTY BOUNDARY
- EX. 1-FOOT CONTOUR
- EX. 5-FOOT CONTOUR
- EX. EPHEMERAL TAX DITCH
- EX. EPHEMERAL AGRICULTURAL DITCH
- NUMBERED PHOTOGRAPH LOCATION
- WETLAND DELINEATION DATA COLLECTION POINT (DCP)

SCALE: 1"=100'

GEO-TECHNOLOGY ASSOCIATES, INC.
GEO-TECHNICAL AND ENVIRONMENTAL CONSULTANTS
3445-A BOX HILL CORPORATE CENTER DRIVE
ARLINGTON, MARYLAND 21009
410-515-8466
FAX: 410-515-4866
WWW.GTAENG.COM
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WETLAND DELINEATION PLAN
CAMP BARNES PROPERTY
SUSSEX COUNTY, DELAWARE

REVISIONS:

JOB NO. 3191301

SCALE: 1"=100'

DATE: JANUARY 21, 2025

DRAWN BY: RPM

DESIGN BY: MAJ/AS

REVIEW BY: MAJ/AS

SHEET: 1 OF 2

PRONG 1 PART 1

POINT 1 TO 2	THENCE (1) North 29°30'49" West, 3.50 feet to a point of non-lan-gency;
POINT 2 TO 3	THENCE (2) North 46°20'17" West, 3.54 feet to a point of non-lan-gency;
POINT 3 TO 4	THENCE (3) North 50°58'15" West, 2.87 feet to a point of non-lan-gency;
POINT 4 TO 5	THENCE (4) North 62°23'50" West, 9.96 feet to a point of non-lan-gency;
POINT 5 TO 6	THENCE (5) North 73°53'10" West, 21.58 feet to a point of non-lan-gency;
POINT 6 TO 7	THENCE (6) North 74°18'54" West, 20.93 feet to a point of non-lan-gency;
POINT 7 TO 8	THENCE (7) North 77°30'11" West, 27.42 feet to a point of non-lan-gency;
POINT 8 TO 9	THENCE (8) North 75°43'41" West, 22.24 feet to a point of non-lan-gency;
POINT 9 TO 10	THENCE (9) North 80°33'36" West, 11.96 feet to a point of non-lan-gency;
POINT 10 TO 11	THENCE (10) North 76°16'02" West, 52.65 feet to a point of non-lan-gency;
POINT 11 TO 12	THENCE (11) North 77°34'10" West, 45.63 feet to a point of non-lan-gency;
POINT 12 TO 13	THENCE (12) North 77°58'07" West, 37.55 feet to a point of non-lan-gency;
POINT 13 TO 14	THENCE (13) North 76°40'15" West, 40.44 feet to a point of non-lan-gency;
POINT 14 TO 15	THENCE (14) North 76°59'58" West, 98.77 feet to a point of non-lan-gency;
POINT 15 TO 16	THENCE (15) North 76°17'15" West, 19.37 feet to a point of non-lan-gency;
POINT 16 TO 17	THENCE (16) North 73°39'04" West, 15.78 feet to a point of non-lan-gency;
POINT 17 TO 18	THENCE (17) North 68°41'15" West, 14.56 feet to a point of non-lan-gency;
POINT 18 TO 19	THENCE (18) North 67°45'35" West, 8.75 feet to a point of non-lan-gency;
POINT 19 TO 20	THENCE (19) North 57°21'38" West, 133.91 feet to a point of non-lan-gency;
POINT 20 TO 21	THENCE (20) North 57°10'24" West, 124.78 feet to a point of non-lan-gency;
POINT 21 TO 22	THENCE (21) North 68°25'24" West, 151.25 feet to a point of non-lan-gency;
POINT 22 TO 23	THENCE (22) North 59°22'12" West, 15.74 feet to a point of non-lan-gency;
POINT 23 TO 24	THENCE (23) North 60°33'49" West, 16.60 feet to a point of non-lan-gency;
POINT 24 TO 25	THENCE (24) North 63°57'25" West, 20.12 feet to a point of non-lan-gency;
POINT 25 TO 26	THENCE (25) North 67°39'52" West, 10.31 feet to a point of non-lan-gency;
POINT 26 TO 27	THENCE (26) North 81°47'00" West, 3.90 feet to a point of non-lan-gency;
POINT 27 TO 28	THENCE (27) North 80°59'17" West, 9.35 feet to a point of non-lan-gency;
POINT 28 TO 29	THENCE (28) South 63°34'50" West, 8.36 feet to a point of non-lan-gency;
POINT 29 TO 30	THENCE (29) South 69°15'35" West, 25.28 feet to a point of non-lan-gency;
POINT 30 TO 31	THENCE (30) South 75°32'53" West, 13.71 feet to a point of non-lan-gency;
POINT 31 TO 32	THENCE (31) South 86°03'18" West, 19.43 feet to a point of non-lan-gency;
POINT 32 TO 33	THENCE (32) North 85°48'46" West, 20.83 feet to a point;
POINT 33 TO 34	THENCE (33) North 85°50'25" West, 9.36 feet to a point of non-lan-gency;
POINT 34 TO 35	THENCE (34) North 71°16'30" West, 18.12 feet to a point of non-lan-gency;
POINT 35 TO 36	THENCE (35) North 66°51'02" West, 20.31 feet to a point of non-lan-gency;
POINT 36 TO 37	THENCE (36) North 62°55'18" West, 47.56 feet to a point of non-lan-gency;
POINT 37 TO 38	THENCE (37) North 61°56'54" West, 50.10 feet to a point of non-lan-gency;
POINT 38 TO 39	THENCE (38) North 63°05'33" West, 44.48 feet to a point of non-lan-gency;
POINT 39 TO 40	THENCE (39) North 62°02'29" West, 20.77 feet to a point of non-lan-gency;
POINT 40 TO 41	THENCE (40) North 65°30'04" West, 50.22 feet to a point of non-lan-gency;
POINT 41 TO 42	THENCE (41) North 62°42'15" West, 39.02 feet to a point of non-lan-gency;
POINT 42 TO 43	THENCE (42) North 63°22'05" West, 69.51 feet to a point of non-lan-gency;
POINT 43 TO 44	THENCE (43) North 62°51'24" West, 44.78 feet to a point of non-lan-gency;
POINT 44 TO 45	THENCE (44) North 67°25'14" West, 58.77 feet to a point of non-lan-gency;
POINT 45 TO 46	THENCE (45) North 47°34'05" West, 1.47 feet to a point of non-lan-gency;
POINT 46 TO 47	THENCE (46) North 52°53'31" West, 1.73 feet to a point of non-lan-gency;
POINT 47 TO 48	THENCE (47) North 70°59'23" West, 5.03 feet to a point of non-lan-gency;
POINT 48 TO 49	THENCE (48) North 82°36'50" West, 2.80 feet to a point of non-lan-gency;
POINT 49 TO 50	THENCE (49) South 84°42'43" West, 2.68 feet to a point of non-lan-gency;
POINT 50 TO 51	THENCE (50) South 56°51'59" West, 2.24 feet to a point of non-lan-gency;
POINT 51 TO 52	THENCE (51) South 37°45'41" West, 5.32 feet;

WETLAND 1

Flag 101 to 102	North 22°33'45" West, 20.77 feet to a point, thence
Flag 102 to 103	North 63°57'37" West, 20.70 feet to a point, thence
Flag 103 to 104	South 47°15'21" West, 24.31 feet to a point, thence
Flag 104 to 105	South 23°19'10" West, 24.31 feet to a point, thence
Flag 105 to 106	South 32°14'43" East, 4.00 feet to a point, thence
Flag 106 to 107	South 72°43'47" East, 56.52 feet to a point, thence
Flag 107 to 108	South 51°02'20" East, 30.37 feet to a point, thence
Flag 108 to 109	South 81°47'47" East, 31.13 feet to a point, thence
Flag 109 to 110	South 40°16'21" West, 22.93 feet to a point, thence
Flag 110 to 111	South 47°01'47" East, 17.38 feet to a point, thence
Flag 111 to 112	South 09°58'47" East, 36.15 feet to a point, thence
Flag 112 to 113	South 89°29'03" East, 17.00 feet to a point, thence
Flag 113 to 114	North 58°00'57" East, 30.71 feet to a point, thence
Flag 114 to 115	North 36°58'24" East, 21.10 feet to a point, thence
Flag 115 to 116	North 25°39'52" East, 26.67 feet to a point, thence
Flag 116 to 117	South 47°37'17" West, 34.60 feet to a point, thence
Flag 117 to 118	North 61°21'03" West, 18.09 feet to a point, thence
Flag 118 to 119	North 47°55'03" West, 15.98 feet to a point, thence
Flag 119 to 120	North 10°15'10" East, 31.11 feet to a point, thence
Flag 120 to 121	North 56°58'20" West, 14.79 feet to a point, thence
Flag 121 to 122	North 00°45'04" East, 25.01 feet to a point, thence
Flag 122 to 123	North 87°35'28" West, 8.22 feet to a point, thence
Flag 123 to 124	South 08°31'05" West, 20.39 feet to a point, thence
Flag 124 to 125	North 52°07'16" West, 20.28 feet to a point, thence
Flag 125 to 101	North 33°53'30" West, 29.29 feet to the Point of Begining

WETLAND 2

Flag 101 to 102	South 72°29'42" East, 17.22 feet to a point, thence
Flag 102 to 103	North 64°05'22" East, 2.00 feet to a point, thence
Flag 103 to 104	North 21°40'07" West, 27.46 feet to a point, thence
Flag 104 to 105	North 07°44'14" East, 25.80 feet to a point, thence
Flag 105 to 106	South 87°51'52" East, 21.58 feet to a point, thence
Flag 106 to 107	South 72°35'13" East, 31.45 feet to a point, thence
Flag 107 to 108	North 24°31'03" West, 37.67 feet to a point, thence
Flag 108 to 109	South 85°02'33" West, 6.76 feet to a point, thence
Flag 109 to 110	South 13°46'35" West, 17.05 feet to a point, thence
Flag 110 to 111	North 40°36'27" West, 22.89 feet to a point, thence
Flag 111 to 112	North 07°19'13" East, 15.30 fee to a point, thence
Flag 112 to 113	North 37°19'31" East, 3.00 fee to a point, thence
Flag 113 to 114	North 05°58'55" East, 15.49 feet to a point, thence
Flag 114 to 115	North 05°39'33" West, 14.18 feet to a point, thence
Flag 115 to 116	North 80°22'45" West, 22.12 feet to a point, thence
Flag 116 to 117	North 08°25'05" East, 16.89 feet to a point, thence
Flag 117 to 118	North 13°14'56" East, 7.00 feet to a point, thence
Flag 118 to 119	North 36°08'27" West, 34.82 feet to a point, thence
Flag 119 to 120	South 03°31'55" West, 26.11 feet to a point, thence
Flag 120 to 121	South 13°22'56" West, 4.80 feet to a point, thence
Flag 121 to 122	North 24°46'44" West, 51.93 feet to a point, thence
Flag 122 to 123	North 00°10'48" West, 61.57 feet to a point, thence
Flag 123 to 124	North 90°00'00" West, 65.50 feet to a point, thence
Flag 124 to 125	South 13°43'12" West, 13.34 feet to a point, thence
Flag 125 to 126	North 80°06'30" West, 31.58 feet to a point, thence
Flag 126 to 127	South 84°49'29" West, 3.00 feet to a point, thence
Flag 127 to 128	South 24°24'44" West, 34.57 feet to a point, thence
Flag 128 to 129	South 18°10'27" West, 29.65 feet to a point, thence
Flag 129 to 130	South 31°58'33" West, 74.20 feet to a point, thence
Flag 130 to 131	South 21°58'36" East, 7.58 feet to a point, thence
Flag 131 to 132	South 58°58'49" East, 33.20 feet to a point, thence
Flag 132 to 133	South 31°48'17" West, 20.20 feet to a point, thence
Flag 133 to 134	South 25°53'05" East, 17.47 feet to a point, thence
Flag 134 to 135	South 01°59'30" East, 26.66 feet to a point, thence
Flag 135 to 136	South 81°46'39" East, 30.37 feet to a point, thence
Flag 136 to 137	South 41°12'08" East, 22.68 feet to a point, thence
Flag 137 to 138	North 69°20'26" East, 30.45 feet to a point, thence
Flag 138 to 139	South 73°40'31" East, 33.03 feet to a point, thence
Flag 139 to 101	South 00°02'49" East, 17.28 feet to the Point of Beginning

WATERBODY A

Flag A101a to A102a	North 01°52'26" East, 53.22 feet to a point, thence
Flag A102a to A103a	North 06°49'15" East, 60.83 feet to a point, thence
Flag A103a to A104a	North 05°41'15" East, 67.03 feet to a point, thence
Flag A104a to A105a	North 05°53'34" East, 68.21 feet to a point, thence
Flag A105a to A106a	North 02°05'56" East, 60.64 feet to a point, thence
Flag A106a to A107a	North 12°52'35" East, 53.51 feet to a point, thence
Flag A107a to A108a	North 07°32'51" East, 79.62 feet to a point, thence
Flag A108a to A109a	North 07°32'52" East, 60.43 feet to a point, thence
Flag A109a to A110a	North 05°30'38" East, 50.07 feet to a point, thence
Flag A110a to A111a	North 08°11'29" East, 68.49 feet to a point, thence
Flag A111a to A112a	North 08°33'04" East, 91.91 feet to a point, thence
Flag A112a to A113a	North 04°04'15" East, 52.94 feet to a point, thence
Flag A113a to A114a	North 03°14'17" East, 63.20 feet to a point, thence
Flag A114a to A115a	North 06°19'30" East, 76.15 feet to a point, thence
Flag A115a to A116a	North 24°11'27" East, 41.12 feet to a point, thence
Flag A116a to A116b	South 83°07'36" West, 14.27 feet to a point, thence
Flag A116b to A115b	South 11°38'59" West, 33.84 feet to a point, thence
Flag A115b to A114b	South 05°42'29" West, 80.60 feet to a point, thence
Flag A114b to A113b	South 05°35'18" West, 60.32 feet to a point, thence
Flag A113b to A112b	South 04°39'10" West, 49.35 feet to a point, thence
Flag A112b to A111b	South 09°08'03" West, 95.99 feet to a point, thence
Flag A111b to A110b	South 05°42'20" West, 68.95 feet to a point, thence
Flag A110b to A109b	South 05°30'40" West, 50.29 feet to a point, thence
Flag A109b to A108b	South 11°42'42" West, 58.57 feet to a point, thence
Flag A108b to A107b	South 06°16'30" West, 81.17 feet to a point, thence
Flag A107b to A106b	South 06°38'11" West, 54.46 feet to a point, thence
Flag A106b to A105b	South 07°42'34" West, 58.80 feet to a point, thence
Flag A105b to A104b	South 04°37'24" West, 72.36 feet to a point, thence
Flag A104b to A103b	South 04°41'14" West, 68.57 to a point, thence
Flag A103b to A102b	South 10°49'05" West, 57.89 to a point, thence
Flag A102b to A101b	South 00°37'28" East, 47.05 to a point, thence
Flag A101b to A101a	South 43°52'32" East, 9.56 to the Point of Beginning

WATERBODY B PART 1

Flag B101a to B102a	South 72°09'05" West, 22.50 to a point, thence
Flag B102a to B103a	North 88°57'53" West, 49.60 feet to a point, thence
Flag B103a tp B104a	South 80°59'26" West, 22.53 feet to a point, thence
Flag B104a to B105a	South 71°18'12" West, 49.54 feet to a point, thence
Flag B105a to B106a	South 77°32'20" West, 39.25 feet to a point, thence
Flag B106a to B107a	South 84°05'40" West, 59.25 feet to a point, thence
Flag B107a to B107b	North 18°42'46" West, 5.13 feet to a point, thence
Flag B107b to B106b	North 73°34'41" East, 57.89 feet to a point, thence
Flag B106b to B105b	North 77°19'01" East, 38.84 feet to a point, thence
Flag B105b to B104b	North 71°38'00" East, 59.53 feet to a point, thence
Flag B104b to B103b	North 80°55'32" East, 24.06 feet to a point, thence
Flag B103b to B102b	North 89°38'19" East, 53.28 feet to a point, thence
Flag B102b to B101b	North 64°47'07" East, 14.71 feet to a point, thence
Flag B101b to B101a	South 18°18'43" East, 17.50 feet to the Point of Beginning

WATERBODY B PART 2

Flag B108a to B109a	South 80°16'21" West, 22.18 feet to a point, thence
Flag B109a to B110a	South 79°47'34" West, 36.51 feet to a point, thence
Flag B110a to B111a	South 73°34'35" West, 25.02 feet to a point, thence
Flag B111a to B112a	South 74°48'42" West, 33.07 feet to a point, thence
Flag B112a to B113a	South 76°15'11" West, 49.76 feet to a point, thence
Flag B113a to B114a	South 68°28'52" West, 63.67 feet to a point, thence
Flag B114a to B115a	South 78°37'46" West, 38.84 feet to a point, thence
Flag B115a to B116b	South 63°07'36" West, 14.27 feet to a point, thence
Flag B116b to B116a	South 57°30'20" East, 10.62 feet to a point, thence
Flag B116a to B117a	South 78°37'10" West, 44.75 feet to a point, thence
Flag B117a to B118a	South 72°23'20" East, 36.82 feet to a point, thence
Flag B118a to B119a	South 82°32'46" West, 45.32 feet to a point, thence
Flag B119a to B119b	North 12°16'31" West, 15.71 feet to a point, thence
Flag B119b to B118b	North 87°01'10" East, 45.82 feet to a point, thence
Flag B118b to B117b	North 77°26'48" East, 36.85 feet to a point, thence
Flag B117b to B116b	North 71°29'17" East, 44.60 feet to a point, thence
Flag B 116b to B115b	North 77°49'20" East, 29.64 feet to a point, thence
Flag B115b to B114b	North 72°41'44" East, 38.95 feet to a point, thence
Flag B114b to B113b	North 69°33'02" East, 62.97 feet to a point, thence
Flag B113b to B112b	North 73°07'12" East, 48.59 feet to a point, thence
Flag B112b to B111b	North 83°03'21" East, 34.80 feet to a point, thence
Flag b111b to B110b	North 76°12'54" East, 25.59 feet to a point, thence
Flag B110b to B109b	North 77°01'08" East, 35.24 feet to a point, thence
Flag B109b to B108b	North 86°00'52" East, 21.81 feet to a point, thence
Flag B108b to B108a	South 16°52'49" East, 9.55 feet to the Point of Beginning

WATERBODY C

Flag C101a to C102a	South 78°15'47" East, 85.85 feet to a point, thence
Flag C102a to C103a	South 67°25'37" East, 67.35 feet to a point, thence
Flag C103a tp C104a	South 65°46'38" East, 55.72 feet to a point, thence
Flag C104a to C105a	South 66°38'58" East, 68.25 feet to a point, thence
Flag C105a to C106a	South 60°01'00" East, 21.55 feet to a point, thence
Flag C106a to C107a	South 70°34'14" East, 56.70 feet to a point, thence
Flag C107a to C108a	South 69°35'22" East, 43.28 feet to a point, thence
Flag C108a to C109a	South 67°01'52" East, 29.33 feet to a point, thence
Flag C109a to C110a	South 86°58'26" East, 86.24 feet to a point, thence
Flag C110a to C111a	South 82°57'31" East, 34.34 feet to a point, thence
Flag C111a to C112a	South 79°15'00" East, 24.06 feet to a point, thence
Flag C112a to C113a	South 73°04'34" East, 56.06 feet to a point, thence
Flag C113a to C114a	South 80°22'31" East, 95.30 feet to a point, thence
Flag C114a to C115a	South 78°19'44" East, 52.72 feet to a point, thence
Flag C115a to C116a	South 81°30'27" East, 72.77 feet to a point, thence
Flag C116a to C116b	North 28°43'20" East, 10.25 feet to a point, thence
Flag C116b to C115b	North 77°50'21" West, 74.97 feet to a point, thence
Flag C115b to C114b	North 79°56'25" West, 52.79 feet to a point, thence
Flag C114b to C113b	North 80°36'34" West, 75.12 feet to a point, thence
Flag C113b to C112b	North 76°23'26" West, 55.21 feet to a point, thence
Flag C112b to C111b	North 76°12'36" East, 42.27 feet to a point, thence
Flag C111b to C110b	North 84°14'07" West, 34.80 feet to a point, thence
Flag C110b to C109b	North 68°05'59" West, 79.30 feet to a point, thence
Flag C109b to C108b	North 70°56'52" West, 29.21 feet to a point, thence
Flag C108b to C107b	North 66°03'00" West, 29.33 feet to a point, thence
Flag C107b to C106b	North 66°18'14" West, 59.56 feet to a point, thence
Flag C106b to C105b	North 80°50'48" West, 13.44 feet to a point, thence
Flag C105b to C104b	North 63°26'52" West, 65.97 feet to a point, thence
Flag C104b to C103b	North 60°52'25" West, 59.41 feet to a point, thence
Flag C103b to C102b	North 69°51'38" West, 70.44 feet to a point, thence
Flag C102b to C101b	North 69°44'27" West, 95.30 feet to a point, thence
Flag C101b to C101a	South 02°11'22" East, 27.78 feet to the Point of Beginning

WATERBODY D

Flag D101 to D102	North 14°23'44" East, 26.14 feet to a point, thence
Flag D102 to D103	North 20°32'57" West, 27.85 feet to a point, thence
Flag D103 to D104	North 08°18'33" East, 28.71 feet to a point, thence
Flag D104 to D105	North 69°04'47" West, 35.70 feet to a point, thence
Flag D105 to D106	South 66°26'49" West, 38.33 feet to a point, thence
Flag D106 to D107	South 66°37'03" West, 36.52 feet to a point, thence
Flag D107 to D108	South 04°33'41" East, 33.56 feet to a point, thence
Flag D108 to D109	South 38°50'11" East, 29.21 feet to a point, thence
Flag D109 to D110	South 76°32'03" East, 33.06 feet to a point