DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT
4735 EAST MARGINAL WAY, SOUTH BLDG 1202
SEATTLE, WA 98134-2388

CENWS-ODR July 14, 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination (JD) 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] NWS-2023-824. [2]

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.[3] 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.[4]

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),[5] the 2023 Rule as amended,

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

[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, the territorial seas, or interstate water that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

[3] 33 CFR 331.2.

[4] Regulatory Guidance Letter 05-02.

[5] The Corps 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.

as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

1. SUMMARY OF CONCLUSIONS.

    a. List of each individual feature within the review area and the jurisdictional status of each one.

        i. Wetland B: Non-jurisdictional

        ii. Mullis Street Ditch Reach A: Non-jurisdictional

        iii. Mullis Street Ditch Reach B: Non-jurisdictional

        iv. Northern Wetland B ditch: Non-jurisdictional

        v. Southern Wetland B ditch: 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)

    d. "Memorandum To The Field Between The U.S. Department Of The Army, U.S. Army Corps Of Engineers And The U.S. Environmental Protection Agency Concerning The Proper Implementation Of 'Continuous Surface Connection' Under The Definition Of "Waters Of The United States" Under The Clean Water Act" (March 12, 2025)

3. REVIEW AREA. The 8.8-acre review area is located on San Juan Island in San Juan County, Washington (48.525111, -123.02271). The review area is bounded by Mullis Street to the west, commercial development to the north, and single-family residences to the south and east. Existing developments in the review area include a garden retail store and parking lot within the northern parcel. The southern parcel contains a gravel pad for parking and equipment storage. A single-family residence

is located east of the gravel pad. A gravel parking lot for a nearby dog park is located in the southwest corner of the southern parcel. A portion of the dog park also extends onto the site. On-site topography generally slopes southwest towards Mullis Street. The northern parcel is relatively flat. Surface runoff from the site drains into the roadside ditch along Mullis Street. See attached figures for site location, delineated wetland boundaries, topographic and aerial views. No previous jurisdictional determination has been made for wetlands onsite.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED.

   Argyle Lagoon is located approximately 0.6 miles downstream and southeast of the review area. Argyle Lagoon is a part of the Puget Sound which is listed on the Navigable Waters of the United States in Washington State dated December 31, 2008.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER.

   Channel reaches of tributaries within the review area were determined using the Strahler Stream Order Methodology, aerial imagery, and LiDAR from the Washington Department of Natural Resources (see Figures 3-7). Mullis Street Ditch Reach A (first order tributary) drains south for 15 feet to Mullis Street Ditch Reach B (second order tributary) (Figure 3). The Northern Wetland B Ditch (first order tributary) flows 210 feet west from a culvert outlet and into Mullis Street Ditch Reach B. The Southern Wetland B Ditch (first order tributary) flows 15 feet west into Mullis Street Ditch Reach B. The Mullis Street ditch extends 270 feet south from the northwestern corner of Parcel No. 351444005000 to a catch basin within the ditch. The catch basin outlets to subsurface stormwater infrastructure that drains approximately 750 feet southeast into the Mullis Street Detention Pond, located outside the review area. Mullis Street Ditch continues 950 feet south from the catch basin and flows into Ditch G (third order tributary). Ditch G flows approximately 225 feet east into the Mullis Street Detention Pond.

   The base of the detention pond (located outside the review area) is characterized by an approximately 10-foot-deep layer of sand material. In addition to the quarry spall spillway and associated underground piping that is used during 100-year storm events, a concrete vault with a flow control aperture is located within the southeastern portion of the detention pond. The bottom of the vault is buried

approximately three feet below the bottom of the pond. Water enters the concrete vault structure through the inlet when 100-year overflow is present (not common), and by infiltration through the open bottom of the vault (primary source of water). Water in the pond mostly infiltrates through the thick sand layer. When there is sufficient water in the pond, water in the sand layer is drawn up via hydrostatic pressure through the bottomless concrete vault. The vault then outlets to a pipe that flows south to underground piping. From the piping, Ditch G continues for approximately 730 feet southeast under Argyle Avenue to enter a pond within a private parcel (Parcel No. 352311001000) (Figure 3). The flow path continues approximately 150 feet through the first pond to then flow subsurface for 70 feet and into a second pond within Parcel No. 352422006000 for approximately 140 feet. Water then flows 50 feet to outlet into Argyle Lagoon (Figures 8 and 9). A delta is visible in aerial imagery waterward of the shoreline where the outlet is located (Figure 9). Argyle Lagoon is part of the Puget Sound, which is listed as a navigable water in the Navigable Waters of the United States in Washington State dated December 31, 2008.

6. SECTION 10 JURISDICTIONAL WATERS[6]: None.

7. SECTION 404 JURISDICTIONAL WATERS: None.

   a. Traditional Navigable Waters (a)(1)(i): N/A

   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): N/A

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

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

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

[6] 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.

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). N/A

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).

Mullis Street Ditch Reach A: The Mullis Street Ditch Reach A, a first order tributary, flows south 15 feet along the western edge of the review area. The Mullis Street Ditch Reach A flows from the northwestern corner of the parcel and into Mullis Street Ditch Reach B. Flow within the ditch travels south and east to eventually reach Argyle Lagoon (Puget Sound) as documented in Section 5 above. In an email dated January 23, 2024, the agent stated the Mullis Street ditch bankfull width was "approximately 2 to 3 feet wide" following a site visit conducted on November 17, 2023. No rainfall occurred between November 14th and 17th, 2023, and the most recent rainfall was 0.019 inches on November 13th, 2023, four days prior to the site visit. According to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date; however, the tool also reports that there had been severe drought in this area in 2023. This reach of the roadside ditch is characterized by artificially excavated and incised bed and banks and is vegetated by mowed grass. No surface water was observed within the Mullis Street Ditch A during the site visit on June 20, 2024. No rainfall occurred between June 17th and 20th, 2024, and the most recent rainfall was 0.03 inches on June 16th, 2024, five days prior to the site visit. Although the site visit was conducted in the dry season, according to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date. Mullis Street Ditch Reach A does not experience flowing or standing water continuously during certain times of the year that is more than only a short duration in direct response to precipitation. The Corps has determined that Mullis Street Ditch Reach A does connect downstream to an (a)(1) water, but it does not meet the relatively permanent standard and is therefore not a water of the US.

Mullis Street Ditch Reach B: The Mullis Street Ditch Reach B, a second order tributary, flows south approximately 420 feet along the western edge of the review area. Water flows from the ditch, into the Mullis Street Detention Pond and eventually into Argyle Lagoon (Puget Sound) as documented in Section 5 above. Within the Mullis Street Detention Pond, Port of Friday Harbor staff confirmed water flows from the concrete vault in the pond to adjacent underground piping for approximately six months in most years. The surface of the pond appears dry up to nine months out of most years, but the underlying sand may be saturated during some of this time. During the site visit on June 20th, 2024, Corps staff heard water flowing underground onsite at the outlet area. Port staff stated it was either the piped water flowing through the concrete vault and leaving the facility, or groundwater entering the system through incomplete connections of pipe sections below ground that then entered the same flow path downstream to Argyle Lagoon. Under the 2023 Revised definition of WOTUS, the preamble states "The agencies will assess any discontinuity in the OHWM and, consistent with pre-2015 practice, a natural or human-made discontinuity in the OHWM does not necessarily sever jurisdiction upstream. A discontinuity may exist where the stream temporarily flows underground. Tributaries may temporarily flow underground in regions with karst geology or lava tubes, for example, maintaining similar flow characteristics underground and at the downstream point where they return to the surface[7]."

In an email dated January 23, 2024, the agent stated the Mullis Street ditch bankfull width was "approximately 2 to 3 feet wide". Photographs provided by the agent from a site visit on November 17, 2023, show flowing water within the Mullis Street Ditch Reach B. No rainfall occurred between November 14th and 17th, 2023, and the most recent rainfall was 0.019 inches on November 13th, 2023, four days prior to the site visit. According to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date; however, the tool also reports that there had been severe drought in this area in 2023.

During a site visit conducted on June 20, 2024, Corps staff observed flow indicators in the northern 270-foot-long section of the Mullis Street Ditch Reach B (between the Northern Wetland B outlet and the identified catch basin north of the dog park); algal stains, wrack lines, and standing water were observed in the ditch. No rainfall occurred between June 17th and 20th, 2024, and the most recent rainfall was 0.03 inches on June 16th, 2024, five days prior to the site visit. Although the site visit was conducted in the dry season, according to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date. Flow

[7] "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023))

indicators were not observed in the southern 950-foot-long section of Mullis Street Ditch Reach B (between the catch basin and Ditch G). This southern section of the ditch reach of is characterized by artificially excavated and incised bed and banks and is vegetated by mowed grass. Indicators of relatively permanent flow were observed in approximately 22% of Mullis Street Ditch Reach B. Mullis Street Ditch Reach B does not experience flowing or standing water continuously during certain times of the year that is more than only a short duration in direct response to precipitation. The Corps has determined that Mullis Street Ditch Reach B does connect downstream to an (a)(1) water, but it does not meet the relatively permanent standard and is therefore not a water of the US.

Northern Wetland B Ditch: The northern Wetland B ditch (approximately 48.525305, -123.02306), a first order tributary, is located on the northern edge of Wetland B. The ditch conveys water from a culvert outlet at the northeast corner of Wetland B, along the northern edge of the wetland for approximately 165 feet, through approximately 50 feet of upland, and outlets into the Mullis Street ditch along the western property boundary. In an email dated January 4, 2024, the agent stated the observed northern ditch “ranges from 5 ft to 2 ft wide where it connects to the Mullis St ditch” and that “The majority ditch is located within the wetland”. In the same email, the agent stated “~3” of water was observed flowing through the berm into the ditch” during the site visit conducted on November 17, 2023. No rainfall occurred between November 14th and 17th, 2023, and the most recent rainfall was 0.019 inches on November 13th, 2023, four days prior to the site visit. According to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date; however, the tool also reports that there had been severe drought in this area in 2023. During the site visit conducted on June 20, 2024, Corps staff observed that the northern Wetland B ditch was connected to the Mullis Street ditch, and surface water was present within the Mullis Street ditch just south of the confluence. No rainfall occurred between June 17th and 20th, 2024, and the most recent rainfall was 0.03 inches on June 16th, 2024, five days prior to the site visit. Although the site visit was conducted in the dry season, according to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date. Based on this information, the Corps has determined that Northern Wetland B Ditch does not experience flowing or standing water continuously during certain times of the year that is more than only a short duration in direct response to precipitation. The Corps has determined that Northern Wetland B Ditch does connect downstream to an (a)(1) water, but it does not meet the relatively permanent standard and is therefore not a water of the US.

Southern Wetland B Ditch: The southern Wetland B ditch (approximately located at 48.524968, -123.02306), a first order tributary, is located at the southwestern corner of Wetland B. The ditch initiates at the corner of Wetland B, flows approximately 15 feet from the wetland through an upland berm and outlets into the Mullis Street Ditch B along the western property boundary. In the same email dated January 4, 2024, the agent stated the outlet "is a narrow swale ~1ft wide and 10" deep excavated through the upland berm along mullis street. ~1" of flowing water was observed flowing from Wetland B into the Mullis St ditch" during the site visit conducted on November 17, 2023. The Corps defines the Southern Wetland B channel as a ditch due to the observed excavated channel, bed, and bank that conveyed water from Wetland B to the Mullis Street ditch, rather than a shallow, vegetated depression such as a swale. No rainfall occurred between November 14th and 17th, 2023, and the most recent rainfall was 0.019 inches on November 13th, 2023, four days prior to the site visit. According to the antecedent precipitation tool, precipitation conditions were wetter than normal at the site on this date; however, the tool also reports that there has been severe drought in this area in 2023. During the site visit conducted on June 20, 2024, Corps staff observed the southern Wetland B ditch was connected to the Mullis Street ditch. No surface water was observed within the southern Wetland B ditch during the site visit. Based on this information, the Corps has determined that Southern Wetland B Ditch does not experience flowing or standing water continuously during certain times of the year that is more than only a short duration in direct response to precipitation. The Corps has determined that Southern Wetland B Ditch does connect downstream to an (a)(1) water, but it does not meet the relatively permanent standard and is therefore not a water of the US.

Wetland B: Wetland B is a 0.64-acre Category IV palustrine emergent and forested depressional wetland located in the northwest corner of the southern parcel in the review area. Wetland B experiences seasonal saturation and inundation with depths generally less than six inches, although deeper ponding exists in an excavated pond in the northwestern corner of the wetland. In addition to the culvert in the northeast corner of the wetland, sources of hydrology include surface runoff, direct precipitation, and potentially seasonally high or perched groundwater. The western edge of Wetland B is located approximately 15 feet from the Mullis Street ditch. The wetland abuts the northern Wetland B ditch along the northern wetland boundary and abuts the southern Wetland B ditch at the southwestern corner of the wetland; both ditches are not considered relatively permanent tributaries as documented above. Although these ditches ultimately drain to Ditch G which eventually flows to Argyle Lagoon, this physically remote hydrologic connection does not establish a continuous surface connection between Wetland B and Ditch G or Argyle Lagoon. Wetland B does not abut an (a)(1), (a)(2) or (a)(3) water. Therefore, Wetland B does

not have a continuous surface connection to an (a)(1), (a)(2), or (a)(3) waters and is not a water of the U.S.

9. DATA SOURCES.

   a. "Wetland Delineation and Critical Areas Update – Mullis Street, San Juan Island, Washington (Parcels 351492 017000 & 3514440 050000)" by NW Ecological Services dated December 18, 2023.

   b. USGS TopoView accessed on January 24, 2024 at https://ngmdb.usgs.gov/topoview/viewer/#15/48.7969/-122.5169

   c. "Critical Areas Assessment – Parcels #351492017 & 351444005, Mullis Street, San Juan Island, Washington" by NW Ecological Services dated March 2018.

   d. National Wetland Inventory accessed on January 24, 2024 at https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

   e. Washington DNR LiDAR Portal accessed on January 24, 2024 at https://lidarportal.dnr.wa.gov/

   f. USGS National Hydrography Dataset accessed on January 24, 2024 at https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlus_HR/MapServer

   g. USDA Web Soils Survey accessed on January 24, 2024 at https://websoilsurvey.nrcs.usda.gov/app

   h. San Juan County Parcel Viewer accessed on January 24, 2024 at https://www.sanjuancountywa.gov/288/GIS-Links

   i. 'Design Report for the Construction of the Mullis Detention Pond Expansion and Snow Plow Procurement – Carrier Vehicle with Dump Bed and Plow; Airport Improvements Program'. Precision Approach Engineering, dated August 2019.

   j. 'Memorandum to the Field Between the U.S. Department Of The Army, U.S. Army Corps Of Engineers, and the U.S. Environmental Protection Agency Concerning the Proper Implementation Of "Continuous Surface Connection" Under the Definition of "Waters Of The United States" Under the Clean Water Act', dated March 12, 2025.

k. San Juan County Stormwater System GIS layer accessed on June 2, 2025.

l. ‘Mullis Pond Design Methodology Summary’. Precision Approach Engineering, dated July 5, 2019.

m. ‘Port of Friday Harbor Storm Water Pollution Prevention Plan for the Friday Harbor Airport’, dated February 7, 2024.

n. June 12, 2024 Memorandum from James P. Grifo to Melinda Larsen (USACE Appeals Review Officer) and Jaime Liljegren (USACE Project Manager) Re: Craig and Erin Watson; Ryan Short Plat – Lots 2-4; Ryan East Short Plat – Lot 4; Penn Cove Holdings; NWS-2023-824 – Approved Jurisdictional Determination

10. OTHER SUPPORTING INFORMATION.

The Corps assessed the review area based on the Continuous Surface Connection (CSC) Joint Memorandum issued on 12 March 2025. The memo summarizes a clear two-part test for determining CWA jurisdiction over adjacent wetlands as provided by the Supreme Court in *Sackett*. First, the adjacent body of water must be a “water of the United States,” which generally means traditional navigable waters, or a relatively permanent body of water connected to a traditional navigable water. Second, the wetland, assuming it satisfies the agencies’ longstanding regulatory definition of “wetlands” at 33 C.F.R. 328.3 and 40 C.F.R. 120.2, must have a continuous surface connection to a requisite covered water making it difficult to determine where the water ends and wetland begins. Wetland B sufficiently meets the regulatory definition of a wetland per 33 C.F.R. 328.3 and 40 C.F.R. 120.2. Additionally, Wetland B directly abuts the Northern Wetland B and Southern Wetland B ditches; however, as the northern and southern Wetland B ditches are not considered to be jurisdictional waters of the U.S, Wetland B does not have a continuous surface connection to waters of the U.S.

The Corps reviewed the submitted report dated August 2019 and titled, ‘Design Report for the Construction of the Mullis Detention Pond Expansion and Snow Plow Procurement – Carrier Vehicle with Dump Bed and Plow; Airport Improvements Program’ by Precision Approach Engineering. Following review, the report focused on the 2012 stormwater detention pond capacity, geotechnical information regarding the expansion, the procurement of snow removal equipment for the airport, and project specifications. No information provided in the report was applicable to determining USACE jurisdiction.

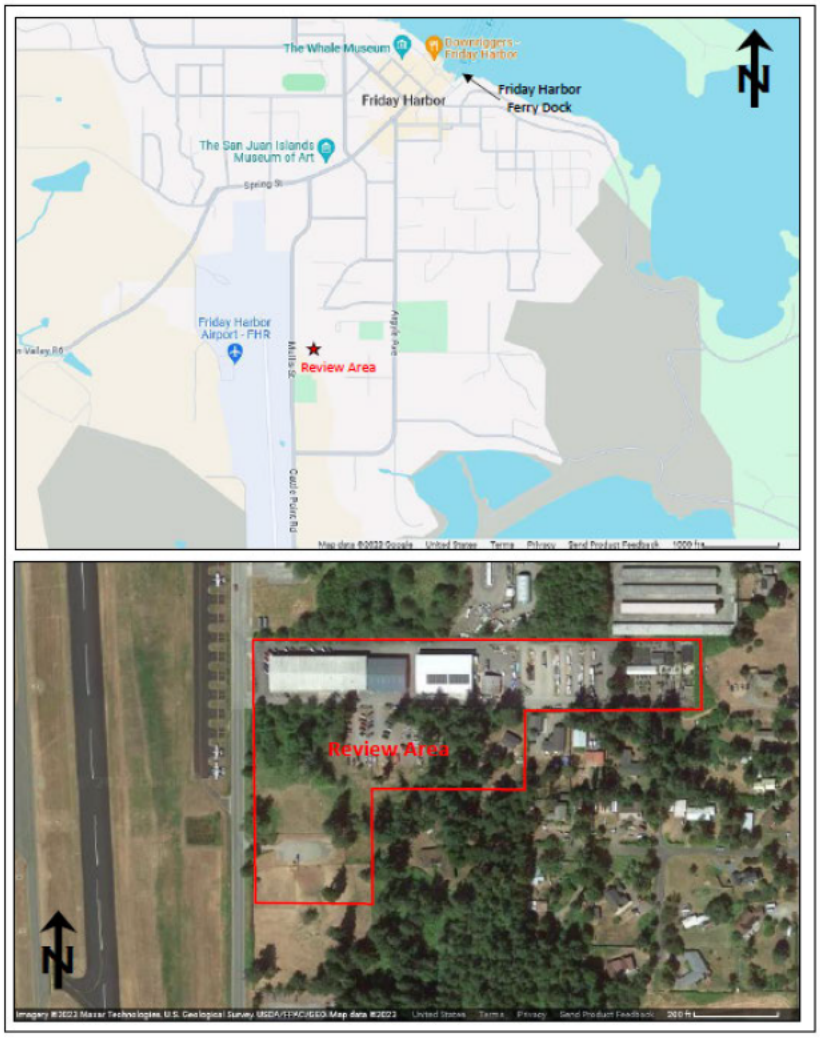
The Corps reviewed the submitted report dated July 5, 2019 titled, 'Mullis Pond Design Methodology Summary' by Precision Approach Engineering. Following review, the report focused on proposed design recommendations for the berm expansion within the detention pond. The report briefly discussed installing an increased orifice diameter within the outfall structure to maintain the existing outlet-control discharge rate; however, outfall information was previously obtained in discussions with Port staff, as well as through submitted plansets depicting the current structure. No information provided in the report was applicable to determining USACE jurisdiction.

The Corps reviewed the submitted Memorandum dated June 12, 2024 from James P. Grifo to USACE staff regarding the adjacent parcel owned by Craig and Erin Watson. Following review, the report focused on the adjacent parcels not involved with the current active AJD request under William Cornelius and was not pertinent to the current AJD review. Additionally, the report stated the adjacent wetlands were not Waters of the U.S. as they were not 'natural' wetlands and were instead created through stormwater inputs. The hydrology information provided from the adjacent property was not pertinent to the review of aquatic features in the review area. Per the 2023 rule, "Implementation of the relatively permanent standard for tributaries in this rule does not require that relatively permanent flow come from particular sources. This rule's approach is consistent with the plurality opinion in Rapanos, which lays out the relatively permanent standard and does not require that relatively permanent waters originate from any particular source. See, e.g., 547 U.S. at 739. And: the source of a tributary's flow does not influence its effect on downstream waters, including paragraph (a)(1) waters[8]".

The Corps reviewed the submitted report dated February 7, 2024 titled, 'Port of Friday Harbors Storm Water Pollution Prevention Plan for the Friday Harbor Airport'. Following review, the report focused on potential pollutants within the airport, as well as appropriate best management practices and proposed sampling methods. The submitted information was not pertinent to the current review.

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.

[8] "Revised Definition of 'Waters of the United States'"; (88 FR 3086 (January 18, 2023))



	Vicinity Maps (Google Maps) Mullis Street (Parcels 351492 017000 & 3514440 050000) Critical Areas Report Update	Figure 1 DEC 2023

Figure 1. Vicinity Maps.

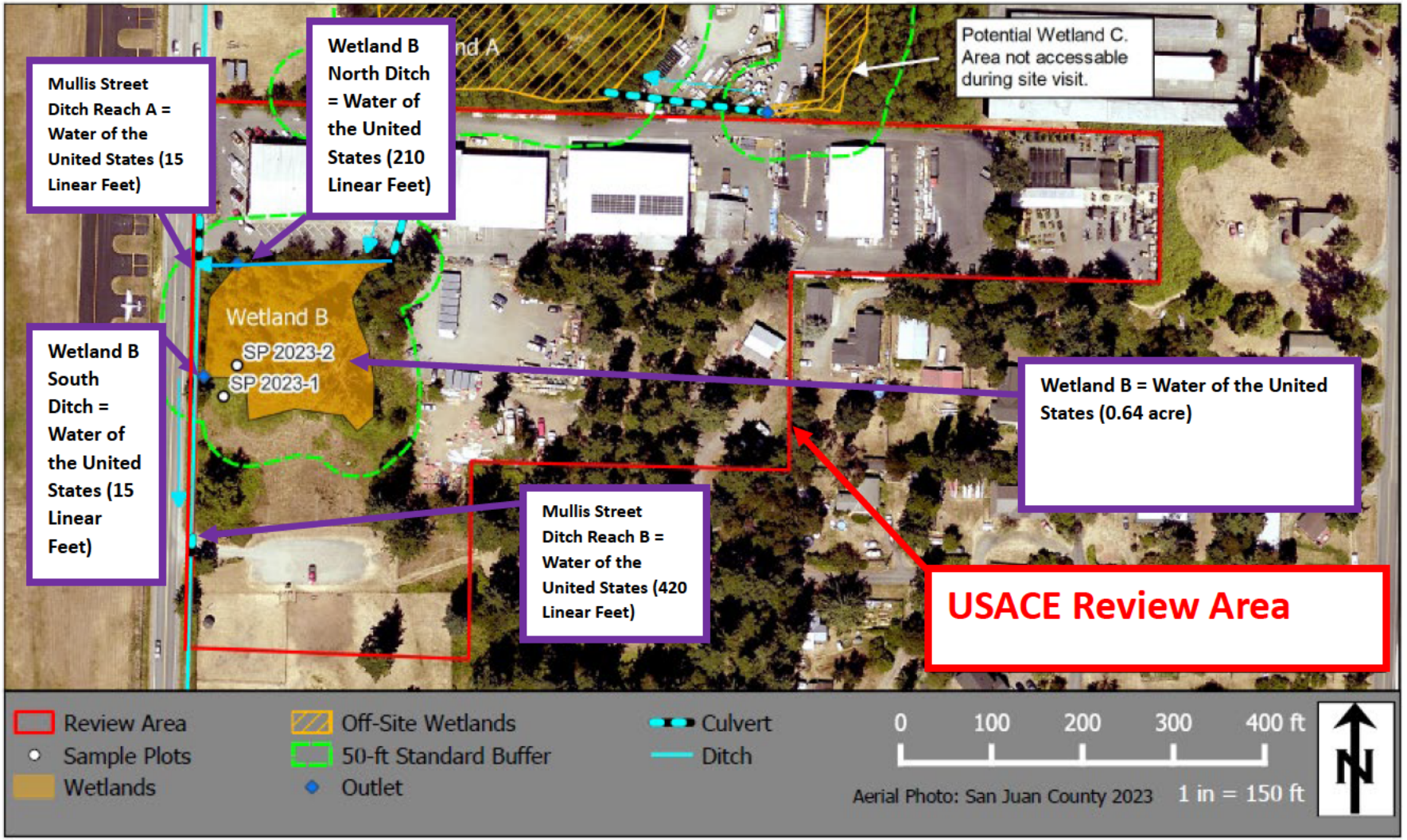


Figure 2. Review Area

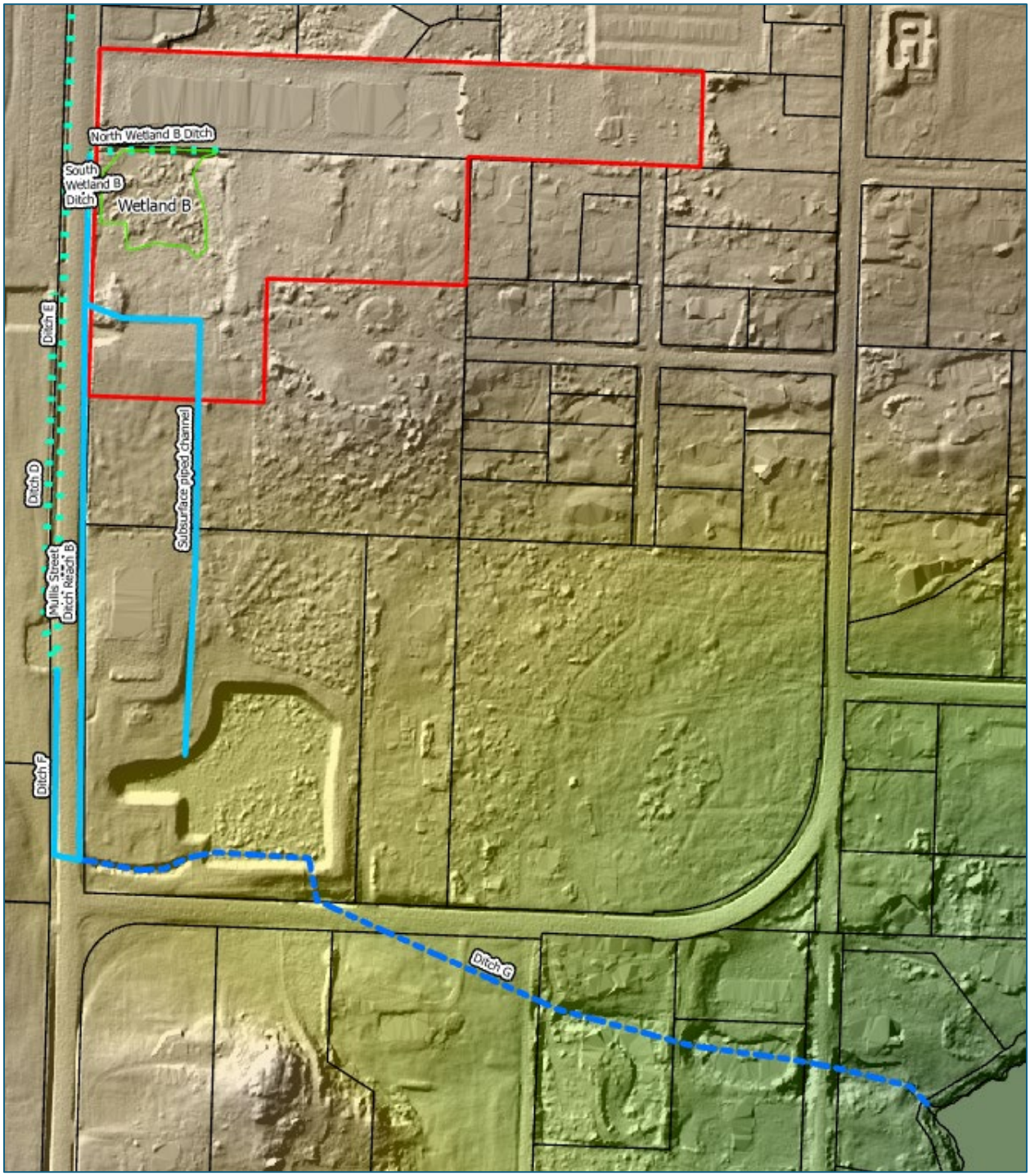


Figure 3. Overview of reaches

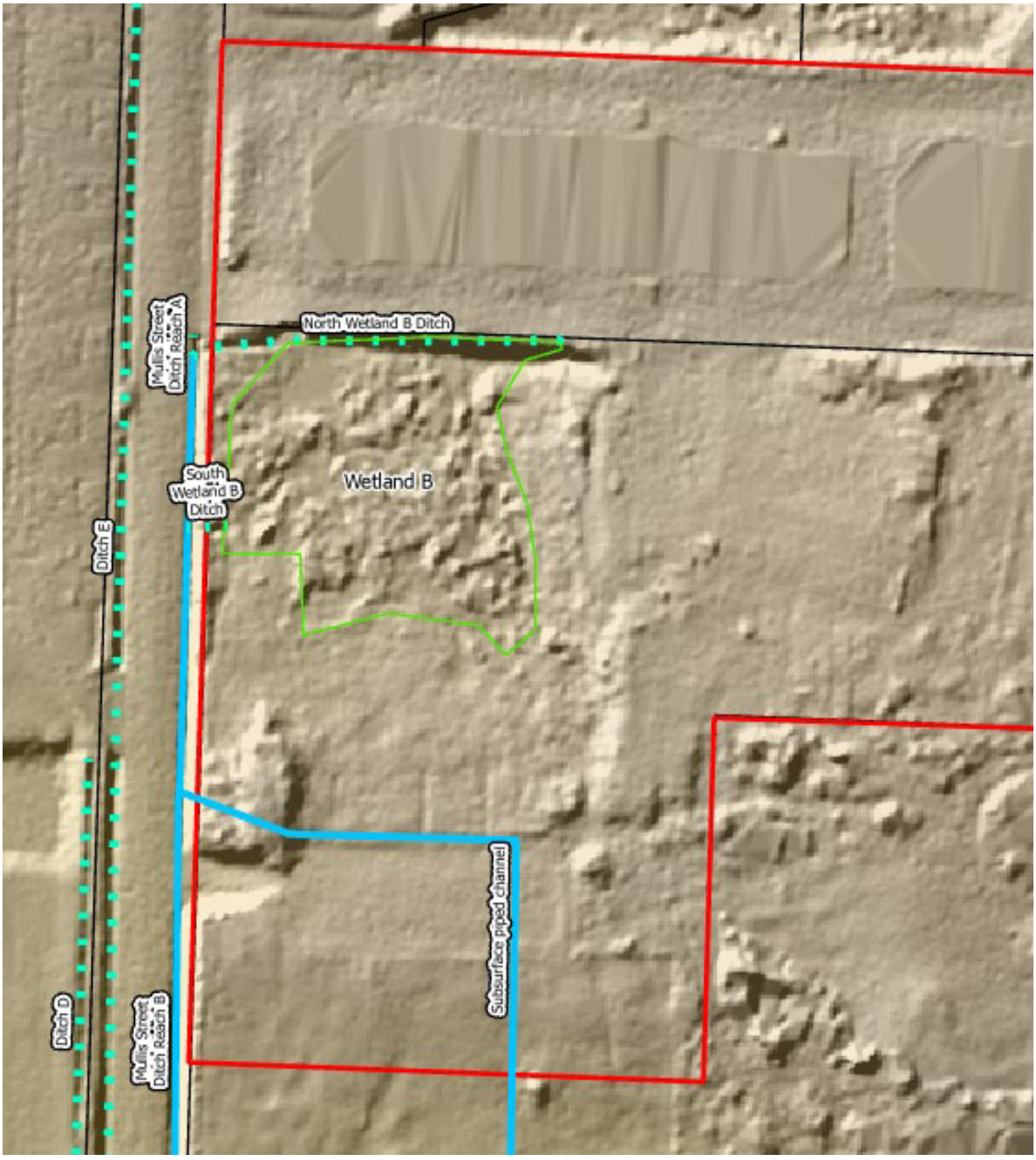


Figure 4. Close-up of north section reaches

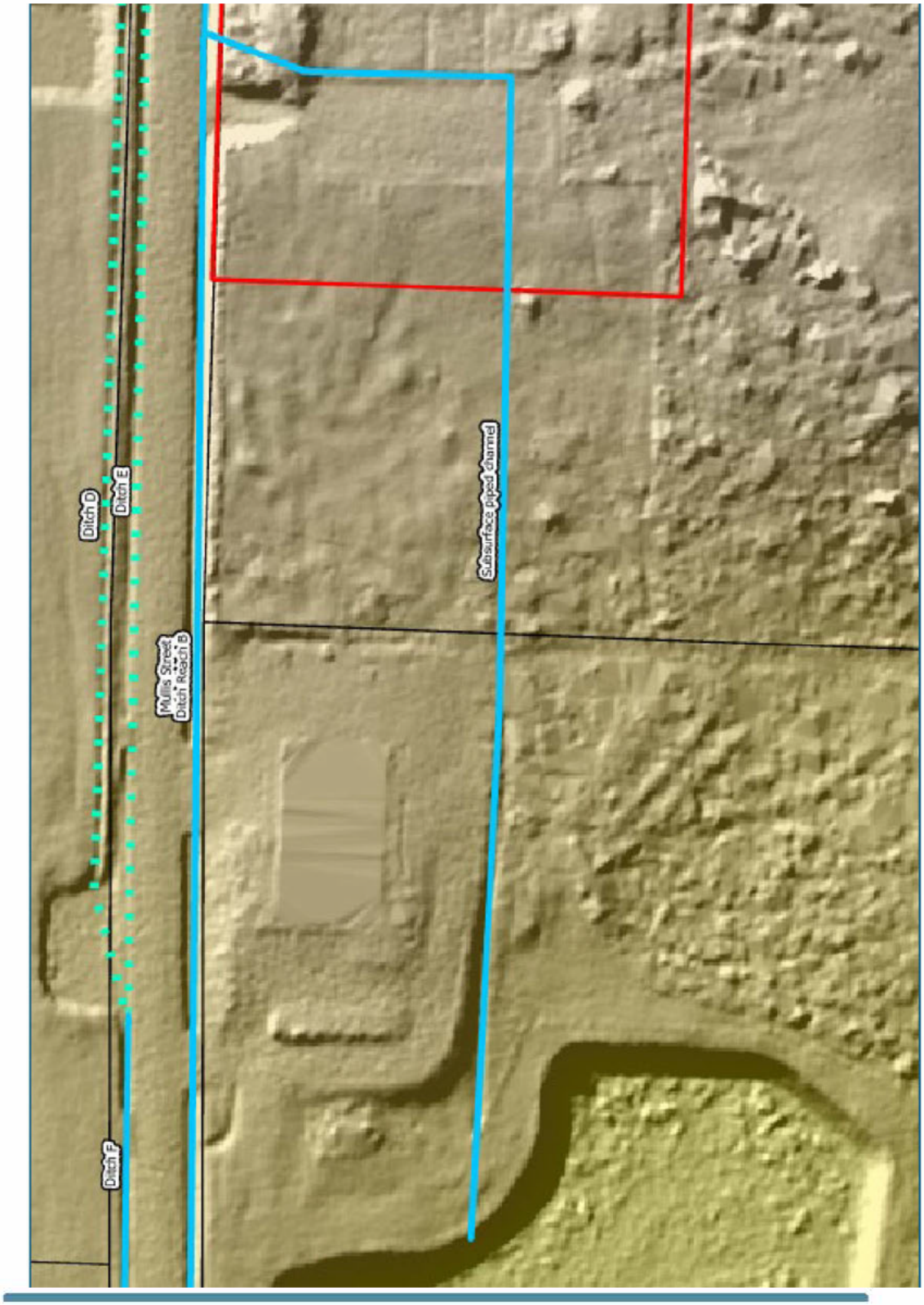


Figure 5. Close-up of central section reaches

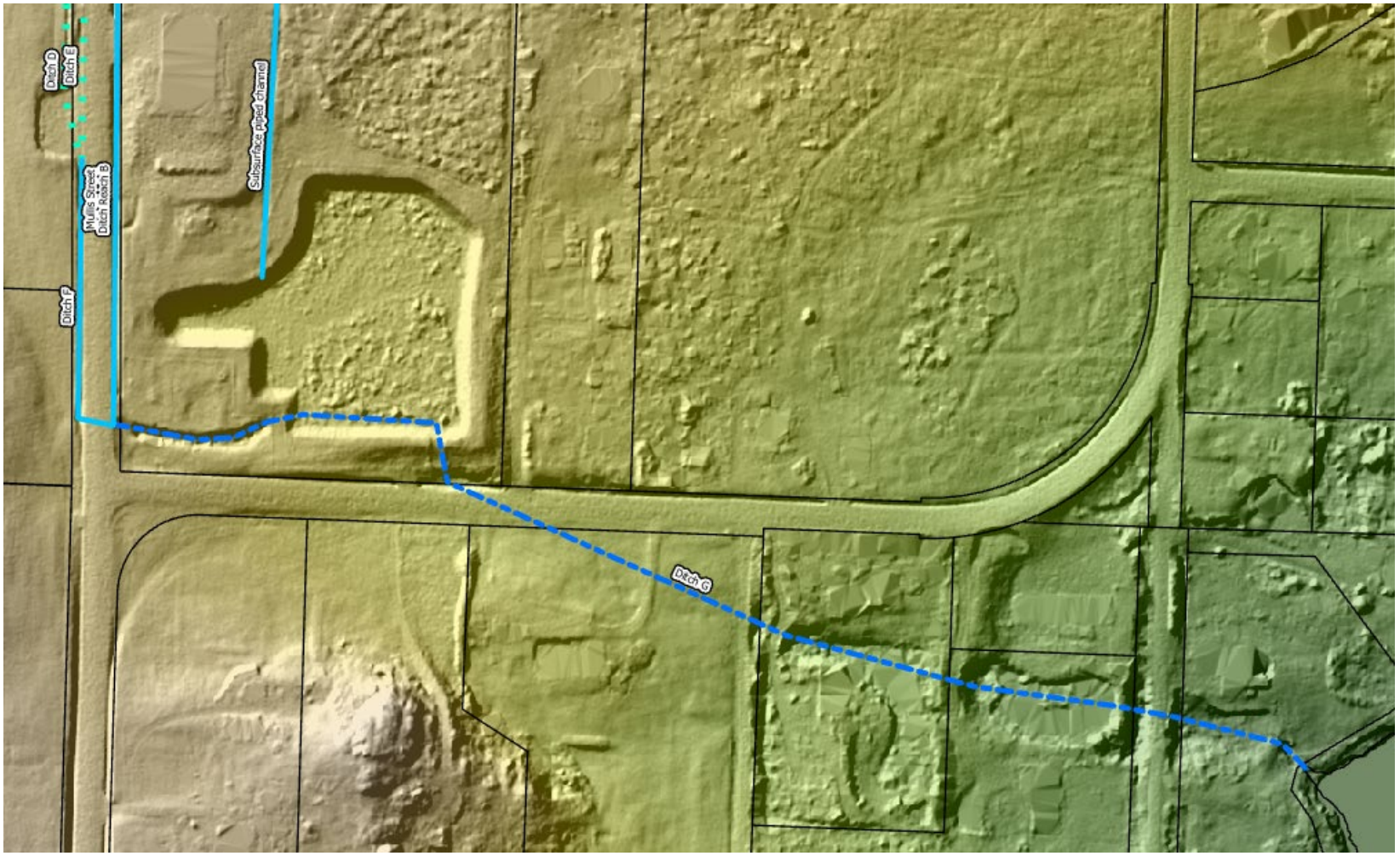


Figure 6. Close-up of southern reach sections

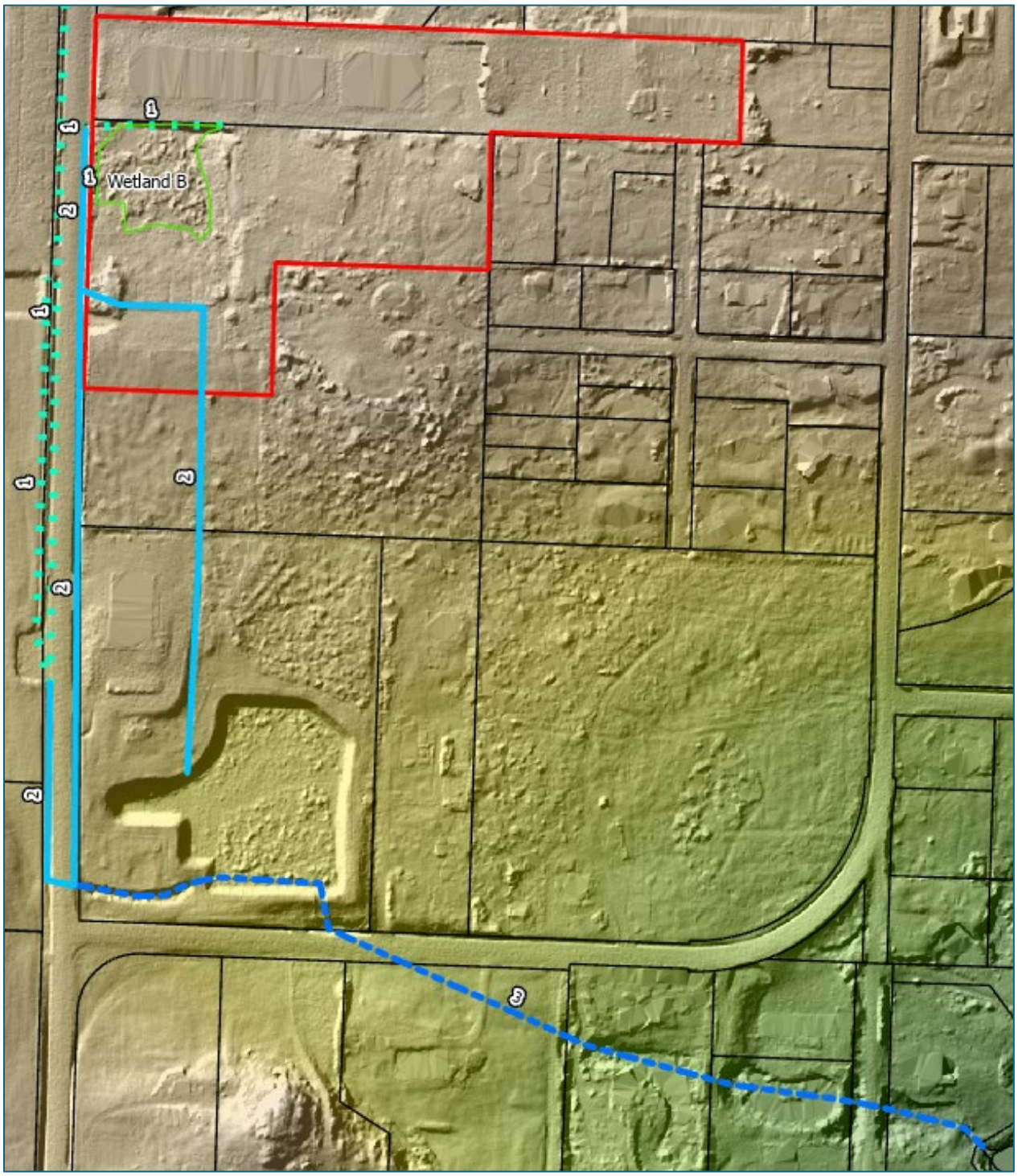


Figure 7. Strahler stream order of reaches

Figure 8. NWS-2023-824: SJCO Stormwater System Layer

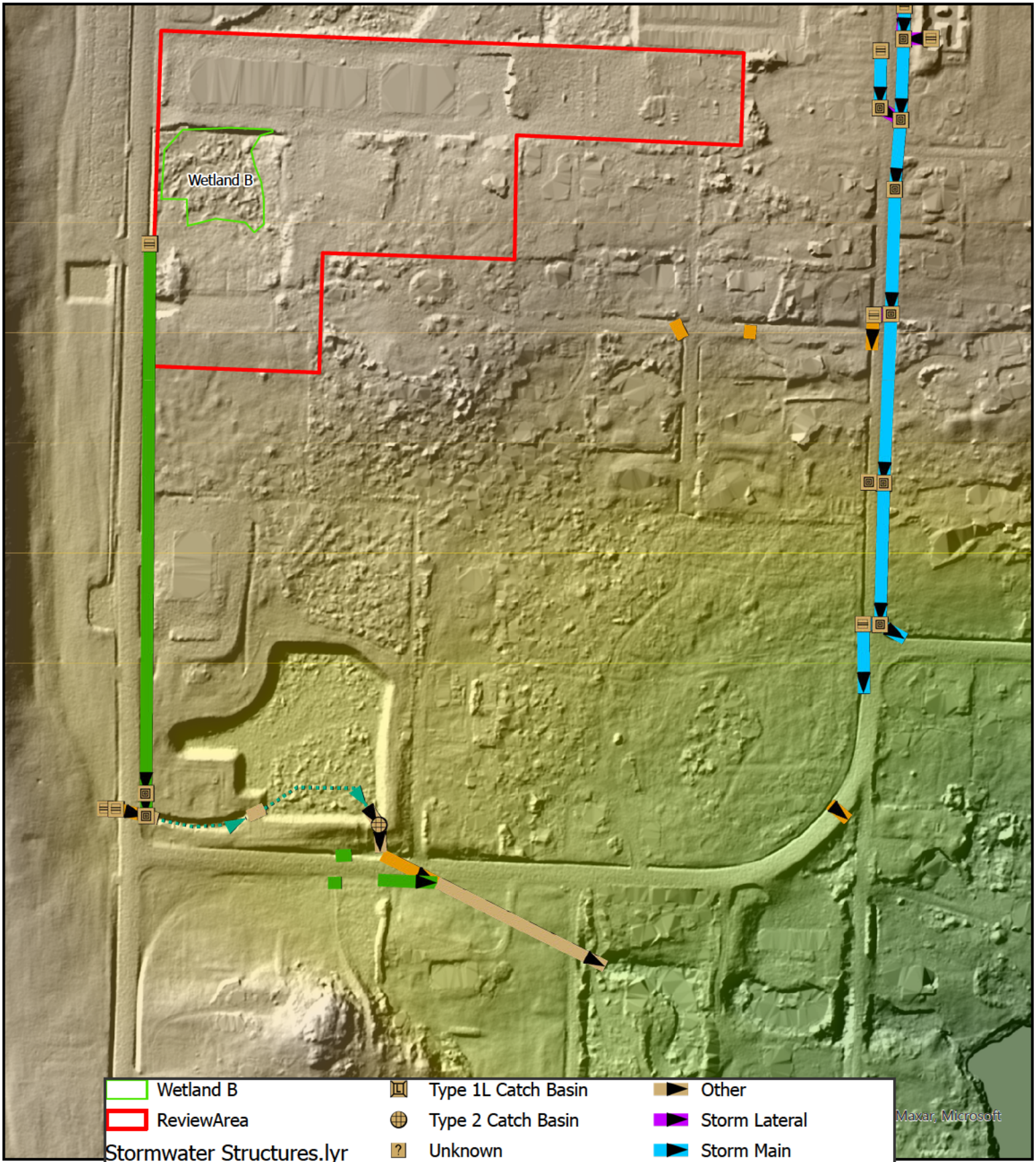


Figure 9. National Hydrography Dataset showing the flowpath from the western pond to discharge into Argyle Lagoon. Note the small delta at the shoreline outfall with accumulated sediment and defined channelization (Washington State Fish Passage map, accessed 6/24/2025).

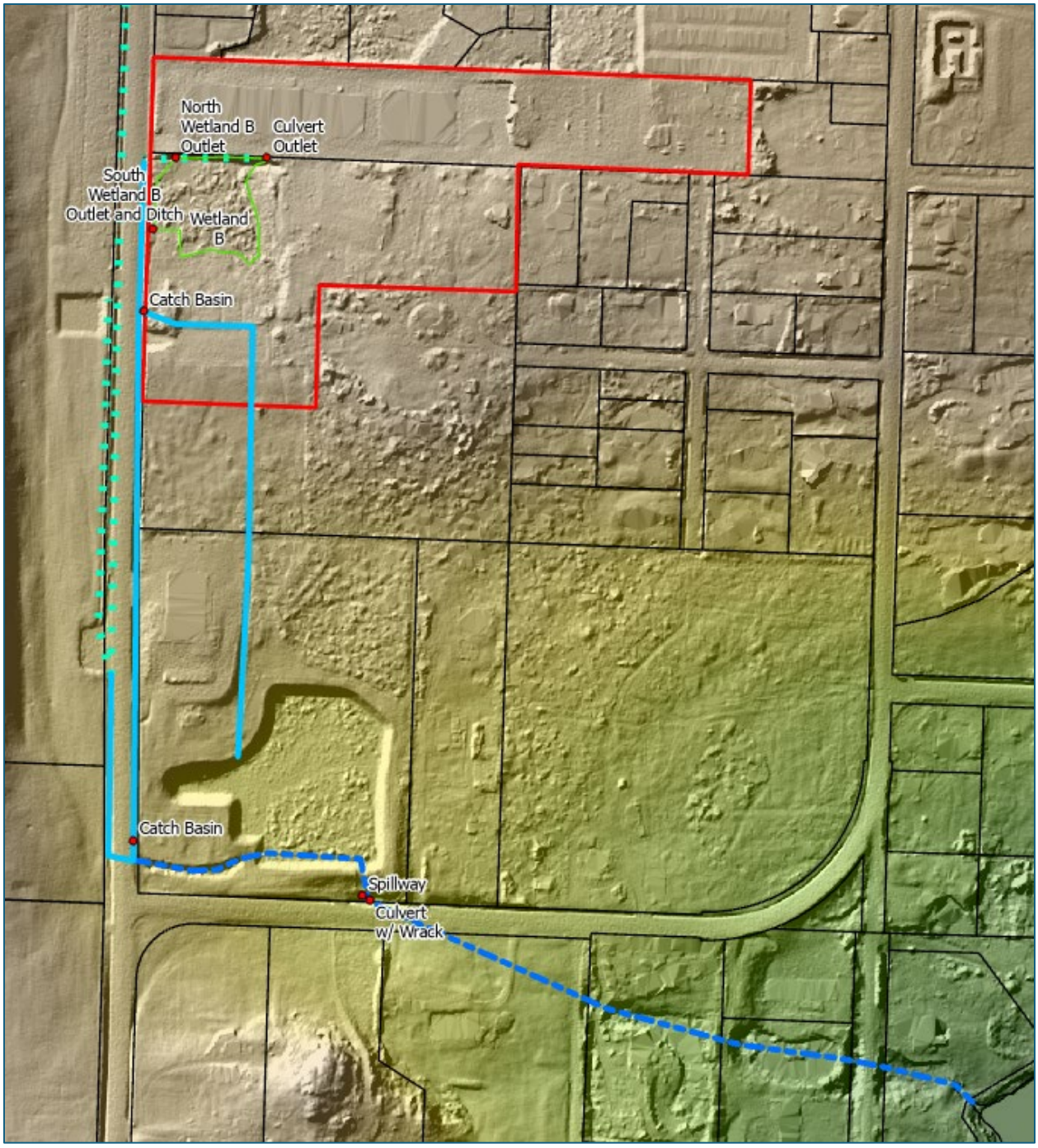


Figure 10. Points of interest from 20 June 2024 site visit.

Figure 11. USGS TopoView: Topographic map of site, 2023 Edition.