U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): June 3, 2021
ORM Number: NAE-2021-01431
Associated JDs: N/A
Review Area Location[1]: State/Territory: Vermont City: Burlington County/Parish/Borough: Chittenden
Center Coordinates of Review Area: Latitude 44.4497392 N Longitude -73.2193118 W

II. FINDINGS

A. Summary: Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.

- ☐ The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- ☐ There are "navigable waters of the United States" within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
- ☐ There are "waters of the United States" within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
- ☒ There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)[2]

§ 10 Name	§ 10 Size		§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A	N/A.	N/A.

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters):[3]				
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):				
(a)(3) Name	(a)(3) Size		(a)(3) Criteria	Rationale for (a)(3) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

[1] Map(s)/figure(s) are attached to the AJD provided to the requestor.
[2] If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.
[3] A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Ditch	190	Linear Ft.	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	The first 70' of the ditch is located along the northern boundary of the "Subject Wetland", which is not an adjacent wetland (see "Subject Wetland" determination below) (Figure 7.b, Photo 2). This portion of the ditch does not satisfy the conditions of (c)(1). The remainder of the ditch within the review area is about 120' long and parallels Queencity Park Road. This portion of the ditch appears to be constructed in upland and is not a relocated tributary (Figure 7.b, Photo 3). This is based off the 1906 Topographical map, which shows a possible tributary west of the Queencity Park Road but is not within the review area (Figure 2). The ditch does not relocate a tributary, is not constructed in a tributary, and is not constructed in an adjacent wetland, making this feature a (b)(5) ditch.
Subject Wetland	0.61	acre(s)	(b)(1) Non-adjacent wetland.	The isolated feature within the review area consists of a shallow emergent wetland that lacks a defined inlet. The mapped soil units are Belgrade (moderately well drained) and Covington silt clay (poorly drained) (Figure 5). Wetland hydrology is likely a result of surrounding runoff from the surrounding Burton facility, parking lot and Queencity Park Road. Currently, there are no naturally occurring surface water channels within or neighboring to the review area that contribute surface water flow into or out of this wetland. Based on a site visit, there is a disconnect between the "Subject Wetland" and the (a)(2) tributary (ditch that relocated a tributary), which is located about 315 feet north of the review area (Figures 7 - 8). This wetland does not directly abut an (a)(1), (2), or (3) water and there is no evidence that the wetland is inundated by flooding from an (a)(1), (2), or (3) water in a typical year. The wetland is not physically separated from jurisdictional waters by natural or artificial features, such as a berm, bank, dune, dike or barrier. Review of historic aerial photography does

[4] Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.
[5] Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.

				not reveal any past hydrologic connection between the wetland and an (a)(1), (2), or (3) water (Figures 2 and 3). The feature does not meet the definition of an (a)(4) water and is a (b)(1) excluded feature. See Section III C for additional rationale.

III. SUPPORTING INFORMATION

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

☒ Information submitted by, or on behalf of, the applicant/consultant: Site Plan, titled: "Burton Headquarters: Burlington, Vt.", dated "May 14, 2021" (Figure 1); Wetland Determination Data Forms prepared by Dori Barton (Arrowwood Environmental), dated "5/19/2021" (see file for record).

This information is sufficient for purposes of this AJD.

Rationale: Based on an 18 May 2021 site visit and review of the information submitted by the applicant's agent, the wetland within the review area was delineated using the methodology in the 1987 "Corps of Engineers Wetlands Delineation Manual" and Northcentral and Northeast Regional Supplement. The limits of the wetland shown on the plans were consistent with conditions in the field and the wetland boundary is acceptable and sufficient for prepartation of an AJD.

☐ Data sheets prepared by the Corps: N/A
☒ Photographs: Aerial and Other: See attached Figures 1 - 4, 7-8
☒ Corps site visit(s) conducted on: 18 May 2021
☐ Previous Jurisdictional Determinations (AJDs or PJDs): N/A
☒ Antecedent Precipitation Tool: *provide detailed discussion in Section III.B*.
☒ USDA NRCS Soil Survey: Accessed on 5/19/2021 (Figure 5)
☐ USFWS NWI maps: N/A
☒ USGS topographic maps: 1906 topographic map (Figure 2.a & 2.b)

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Stream stats	"Stream Stats" (Figure 4)
USDA Sources	"Web Soil Survey National Cooperative Soil Survey" (Figure 5)
NOAA Sources	N/A.
USACE Sources	"Site Visit: 5/18/2021" (Figure 7.b), USACE Antecedent Precipitation Tool (Figure 9)
State/Local/Tribal Sources	"Approximate Historical Stream Channel Location" (Figure 2.c), 1962 Aerial (Figure 3), "BTV Sewer and Stormwater Collection System" (Figure 6),
Other Sources: Historical Topographical Map & Google Earth	"1906 Topographical Map" (Figure 2.a), "2016 Aerial with a 1906 Topographical Map Overlaid" (Figure 2.b), "Photo Index" (Figure 7.a), "Location Map" (Figure 8)

B. Typical year assessment(s): On 18 May 2021 the Corps conducted a field visit to review the wetland delineation and to determine jurisdiction. During the field visit, there was no flowing water from the "Subject

Wetland" to the "Ditch" (within the review area). The "Ditch" within the review area was completely dry. There was standing water along the edges of the "Subject Wetland", where the Queencity Park Road runoff leads to. The APT report concludes normal conditions existed during a period of moderate drought during the dry season on 18 May 2021 (Figure 9), which neither supports or refutes the field conditions with the absence of flowing water. More data would be needed to understand if water is present within the "Ditch" within a typical year. However, the Corps compared nearby flowing water in other features (outside the review area), which the APT supports those areas to flow within a typical year under normal conditions in a dry season. From field observations, the ditch (located further north along the railroad tracks) showed a presence of standing water (315' north of the "Ditch" in the review area) and the same ditch starts having flowing water about 800' from the "Ditch". Field observations made on 18 May 2021 in the surrounding area conclude that the "Ditch" within the review area does not flow within a typical year.

C. **Additional comments to support AJD:** This Approved Jurisdictional Determination is based on an 18 May 2021 site visit, and review of information available on public, state and federal websites and information provided by the applicant.

The "Subject Wetland" is a palustrine – emergent wetland and 0.61 acre in size. There are no naturally occurring surface water channels into or out of the wetland. However, the surrounding impervious surfaces drain into the wetland. The southeast corner of the wetland has a small culvert that drains portions of the Burton parking lot and roof. The southwest portion of the wetland, adjacent to the road, has a culvert that drains Queencity Park Road's runoff into the wetland. Minimal standing water was seen along the roadside edge of the wetland. No signs of flowing water were observed within the wetland, nor does it appear to receive flow in a typical year from any streams.

The wetland is not hydrologically connected to the known closest jurisdictional (a)(2) water, which is outside of the project review area. The closest jurisdictional water (an (a)(2) jurisdictional ditch) is about 315 ft. north of the "Subject Wetland" (Figure 8).

The "Ditch" is about 170' in length and is connected to the "Subject Wetland". The "Ditch" (within the review area) did not relocate a tributary, as historical maps do not show a tributary on the east side of the Queencity Park Road (Figures 2 and 3). During the site visit, no water was present within the "Ditch". The "Ditch" severs a hydrological connection between the "Subject Wetland" and the jurisdictional ditch about 315' feet to the north (Figure 8).

The wetland and ditch are clearly non-navigable, isolated and intrastate. The "Subject Wetland" and connected "Ditch" are excluded features and are not jurisdictional waters of the U.S.

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Amanda L. T. Sayles
Project Manager

Digitally signed by Amanda Sayles
Date: 2021.05.20 15:33:35 -04'00'

Paul Minkin
NWPR AJD Team

Digitally signed by Paul Minkin
Date: 2021.05.21 12:27:45 -04'00'

Frank J. DelGiudice
Branch Chief

Digitally signed by Frank J Del Giudice
Date: 2021.05.21 12:34:48 -04'00'

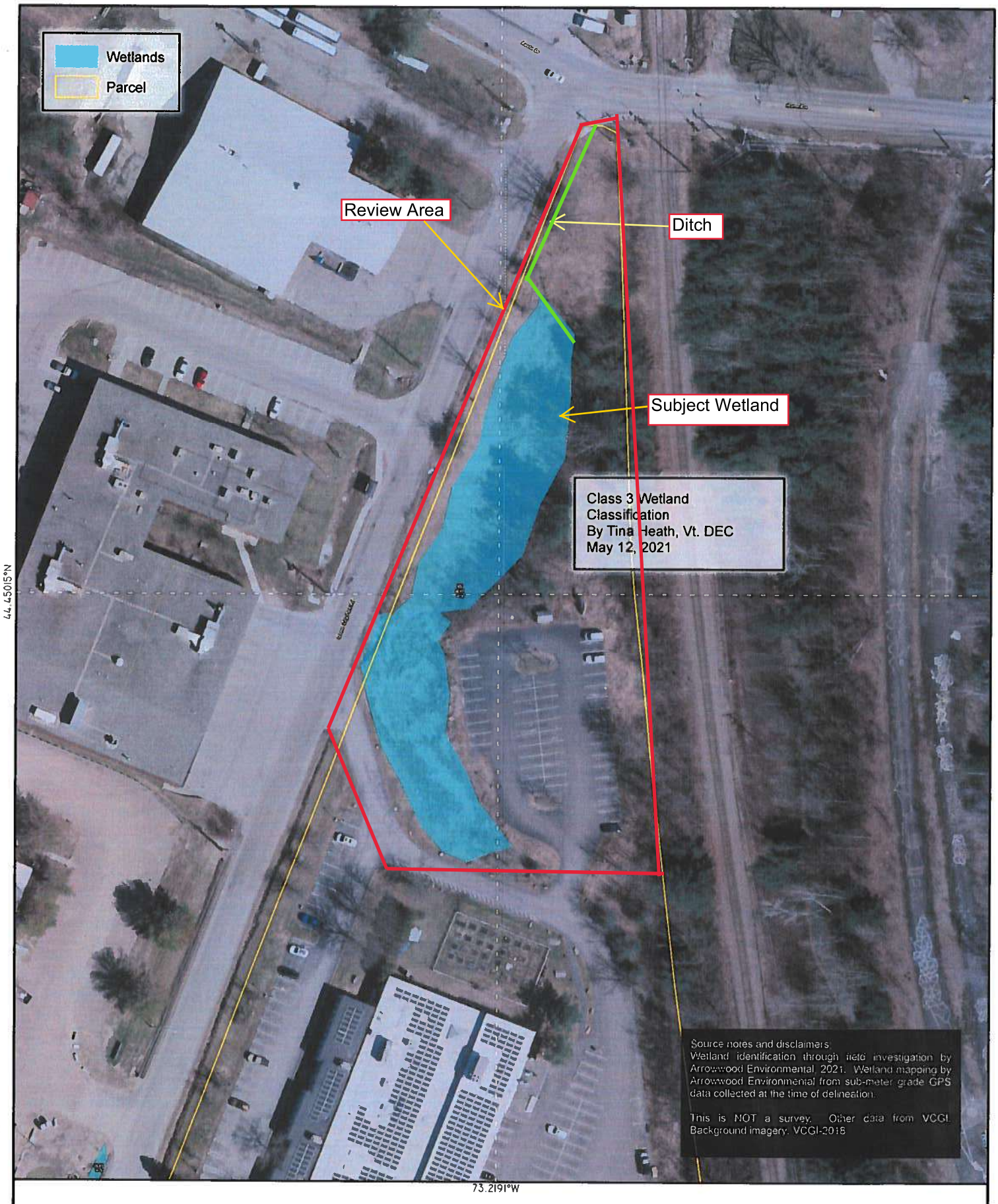
Robert J. DeSista
PATS Chief

Digitally signed by DESISTA.ROBERT.J.1229271241
Date: 2021.06.03 08:47:41 -04'00'

Tammy R. Turley
Chief Regulatory Division

Digitally signed by DESISTA.ROBERT.J.1229271241
Date: 2021.06.03 08:48:23 -04'00'

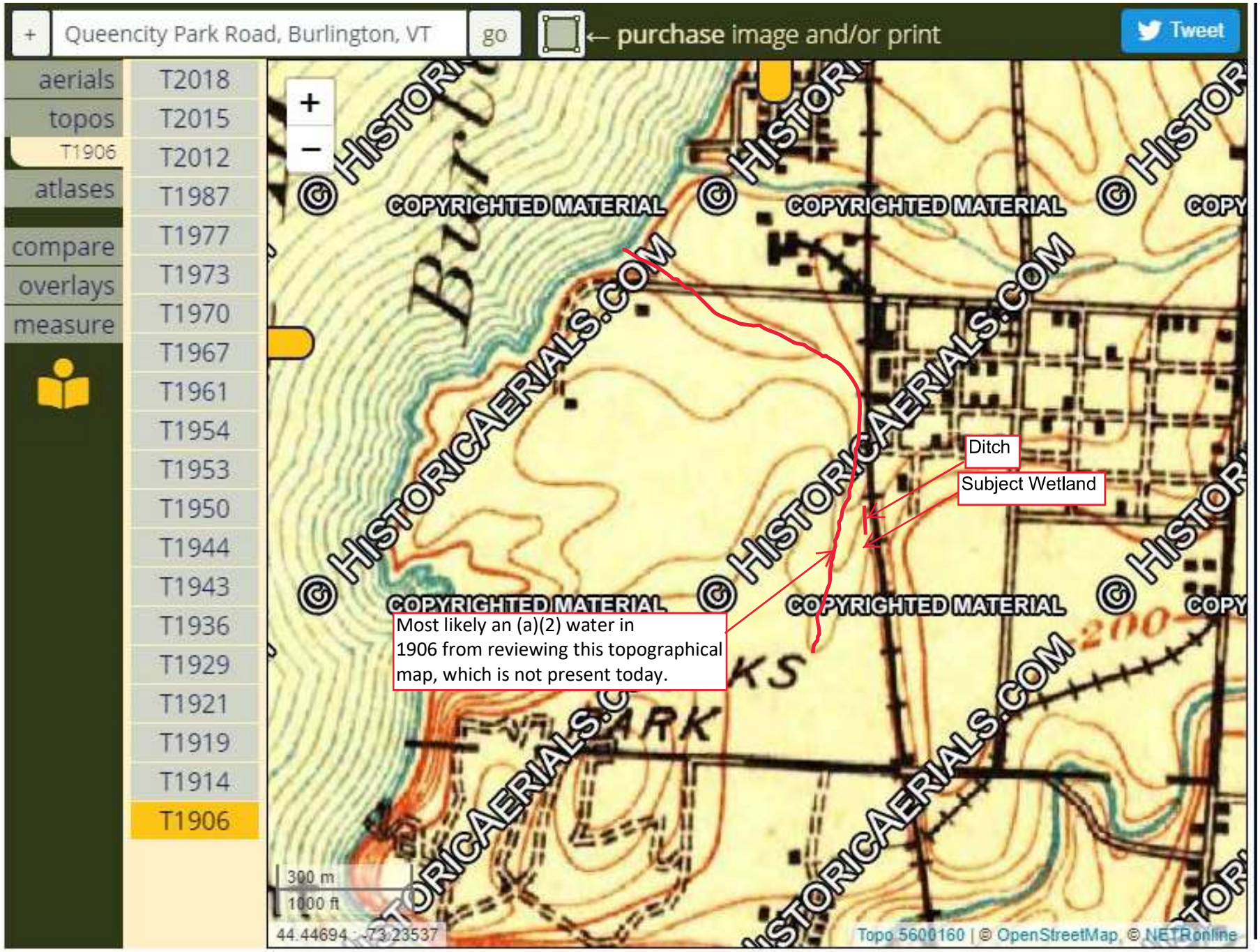
Chief of Regulatory designated Robert DeSista as acting for signature in her absence.



Date: May 14, 2021

Figure 1

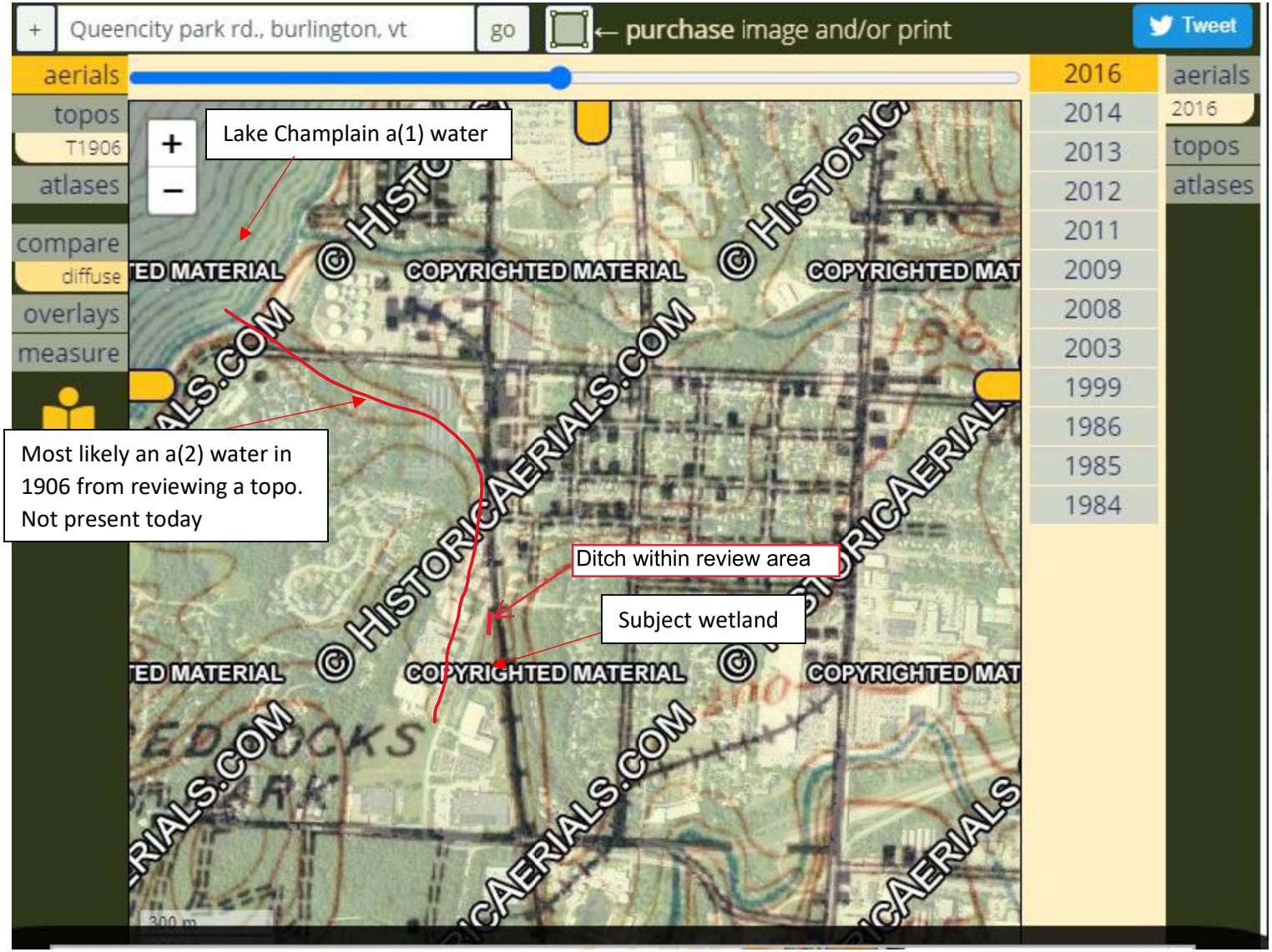
Title: 1906 Topographical Map
Date Accessed: 5/18/2021



1906 Topo accessed from: https://www.historicaerials.com/viewer.

Figure 2.a

Title: 2016 Aerial with a 1906 Topographical Map Overlaid
Date Accessed: 5/18/2021



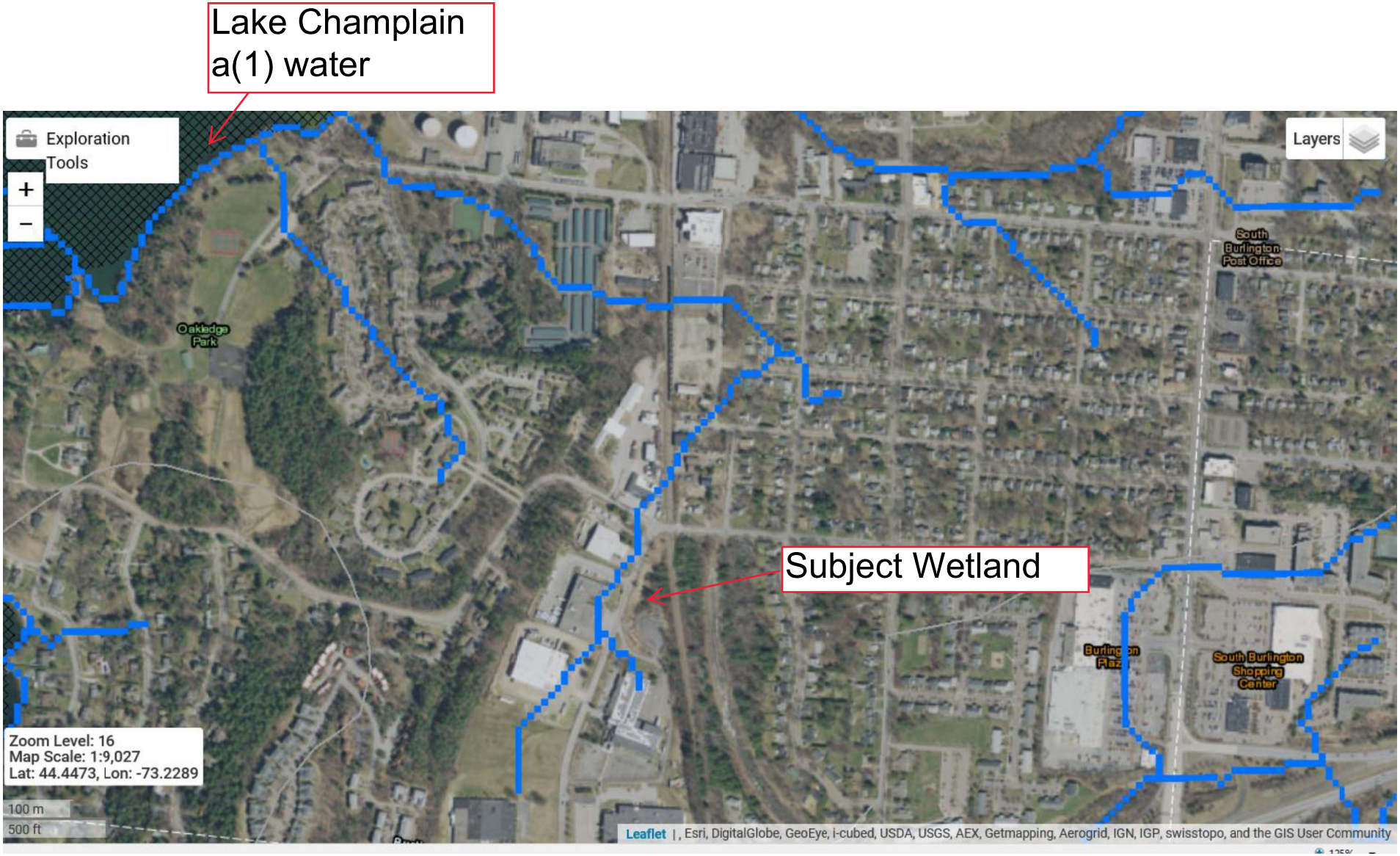
A 2016 aerial with a 1906 topographical map overlayed ontop to show where an (a)(2) water would have been in 1906 (red line above).

Figure 2.b

Title: Approximate Historical Stream Channel Location
Date: 5/19/2021

Figure 2.c

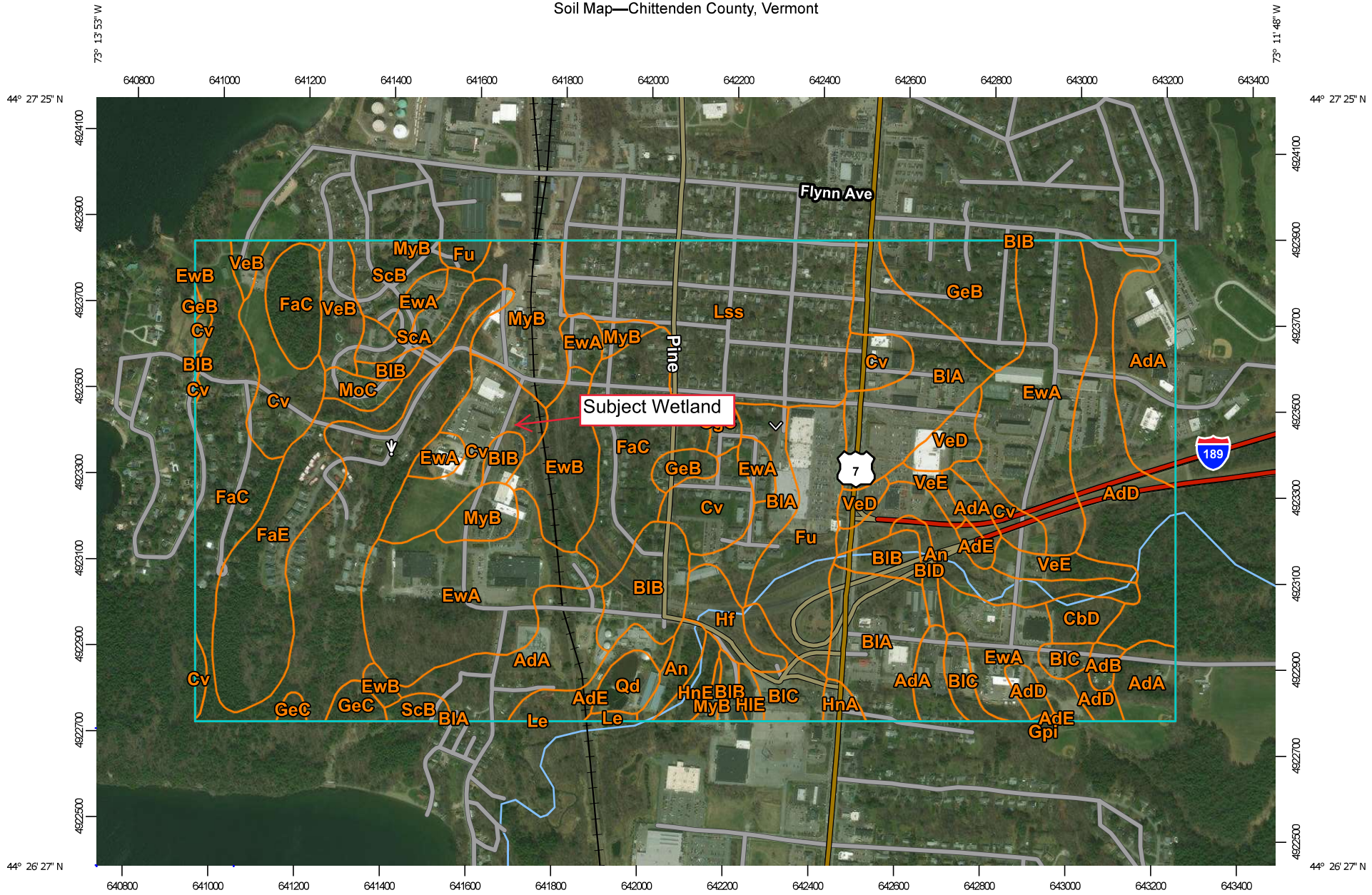

Subject Wetland
Drainage features with no stream precense
Title: 1962 Aerial
Date: 5/18/21
Figure 3



Title: Stream Stats
Date: 5/18/21

Figure 4

Soil Map—Chittenden County, Vermont



Map Scale: 1:12,600 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Figure 5

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chittenden County, Vermont
Survey Area Data: Version 23, Jun 4, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 28, 2012—Mar 29, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Figure 5 (cont.)

Map Unit Legend

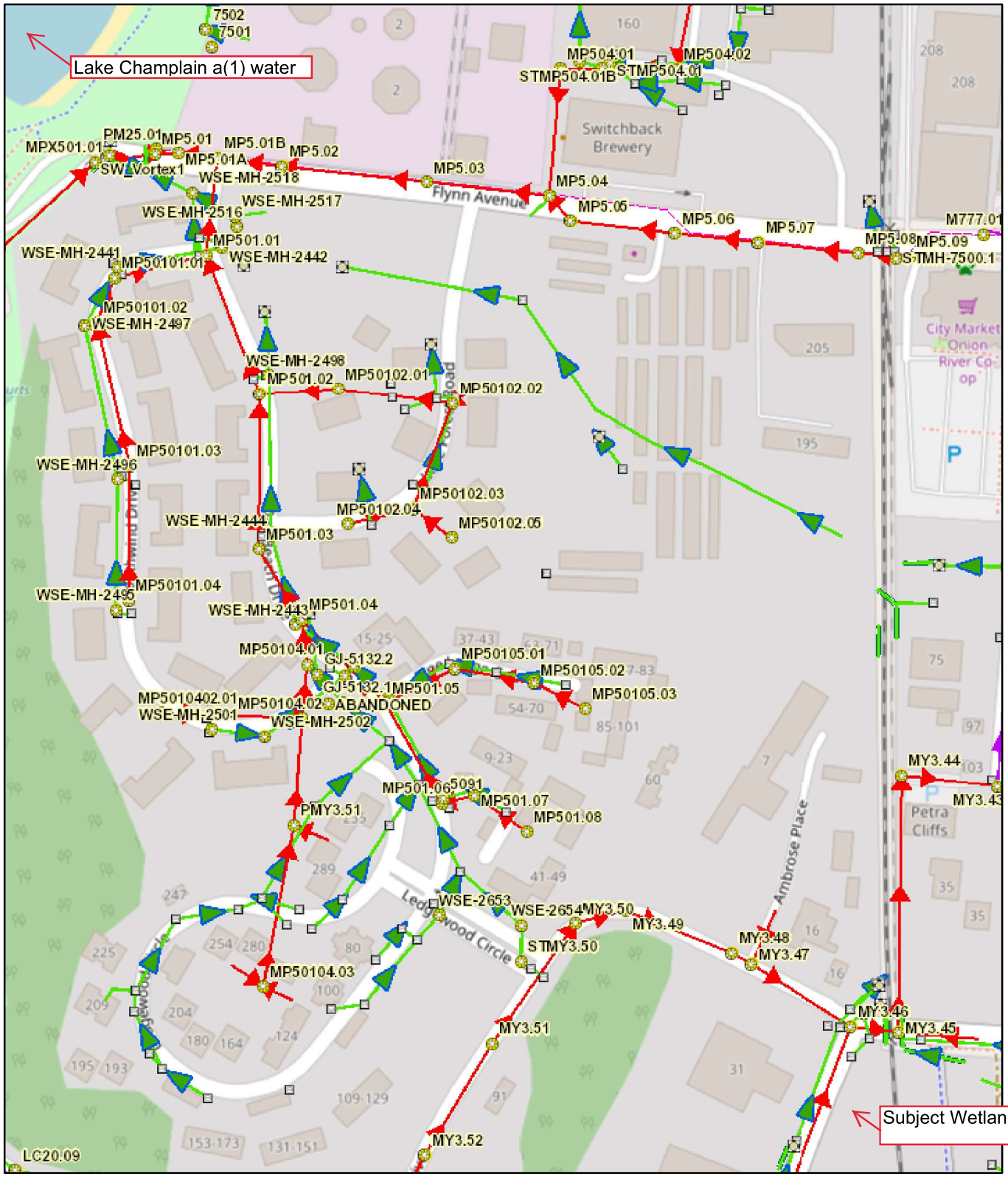
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AdA	Adams and Windsor loamy sands, 0 to 5 percent slopes	46.9	7.4%
AdB	Adams and Windsor loamy sands, 5 to 12 percent slopes	1.6	0.3%
AdD	Adams and Windsor loamy sands, 12 to 30 percent slopes	33.0	5.2%
AdE	Adams and Windsor loamy sands, 30 to 60 percent slopes	6.8	1.1%
An	Alluvial land	16.2	2.6%
BlA	Belgrade and Eldridge soils, 0 to 3 percent slopes	48.3	7.6%
BlB	Belgrade and Eldridge soils, 3 to 8 percent slopes	20.4	3.2%
BlC	Belgrade and Eldridge soils, 8 to 15 percent slopes	11.6	1.8%
BlD	Belgrade and Eldridge soils, 15 to 25 percent slopes	2.4	0.4%
CbD	Cabot silt loam, 3 to 25 percent slopes, very stony	3.9	0.6%
Cv	Covington silty clay	44.1	6.9%
EwA	Enosburg and Whately soils, 0 to 3 percent slopes	87.5	13.8%
EwB	Enosburg and Whately soils, 3 to 8 percent slopes	14.1	2.2%
FaC	Farmington extremely rocky loam, 5 to 20 percent slopes	92.5	14.6%
FaE	Farmington extremely rocky loam, 20 to 60 percent slopes	29.9	4.7%
Fu	Fill land	22.3	3.5%
GeB	Georgia stony loam, 3 to 8 percent slopes	19.1	3.0%
GeC	Georgia stony loam, 8 to 15 percent slopes	3.2	0.5%
GgC	Georgia extremely stony loam, 0 to 15 percent slopes	3.1	0.5%
Gpi	Pits, sand and Pits, gravel	0.2	0.0%
Hf	Hadley very fine sandy loam	6.1	1.0%
HlE	Hartland very fine sandy loam, 25 to 60 percent slopes	1.3	0.2%

Figure 5 (cont.)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HnA	Hinesburg fine sandy loam, 0 to 3 percent slopes	1.7	0.3%
HnE	Hinesburg fine sandy loam, 25 to 60 percent slopes	3.0	0.5%
Le	Limerick silt loam	0.6	0.1%
Lss	Limit of detailed soil survey	50.9	8.0%
MoC	Massena extremely stony silt loam, 0 to 15 percent slopes	2.8	0.4%
MyB	Munson and Raynham silt loams, 2 to 6 percent slopes	22.6	3.6%
Qd	Quarries	4.0	0.6%
ScA	Scantic silt loam, 0 to 2 percent slopes	5.2	0.8%
ScB	Scantic silt loam, 2 to 6 percent slopes	8.8	1.4%
VeB	Vergennes clay, 2 to 6 percent slopes	8.1	1.3%
VeD	Vergennes clay, 12 to 25 percent slopes	6.3	1.0%
VeE	Vergennes clay, 25 to 60 percent slopes	6.6	1.0%
Totals for Area of Interest		**634.9**	**100.0%**

Figure 5 (cont.)

BTV Sewer and Stormwater Collection System



5/19/2021, 8:53:11 AM

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.17 km

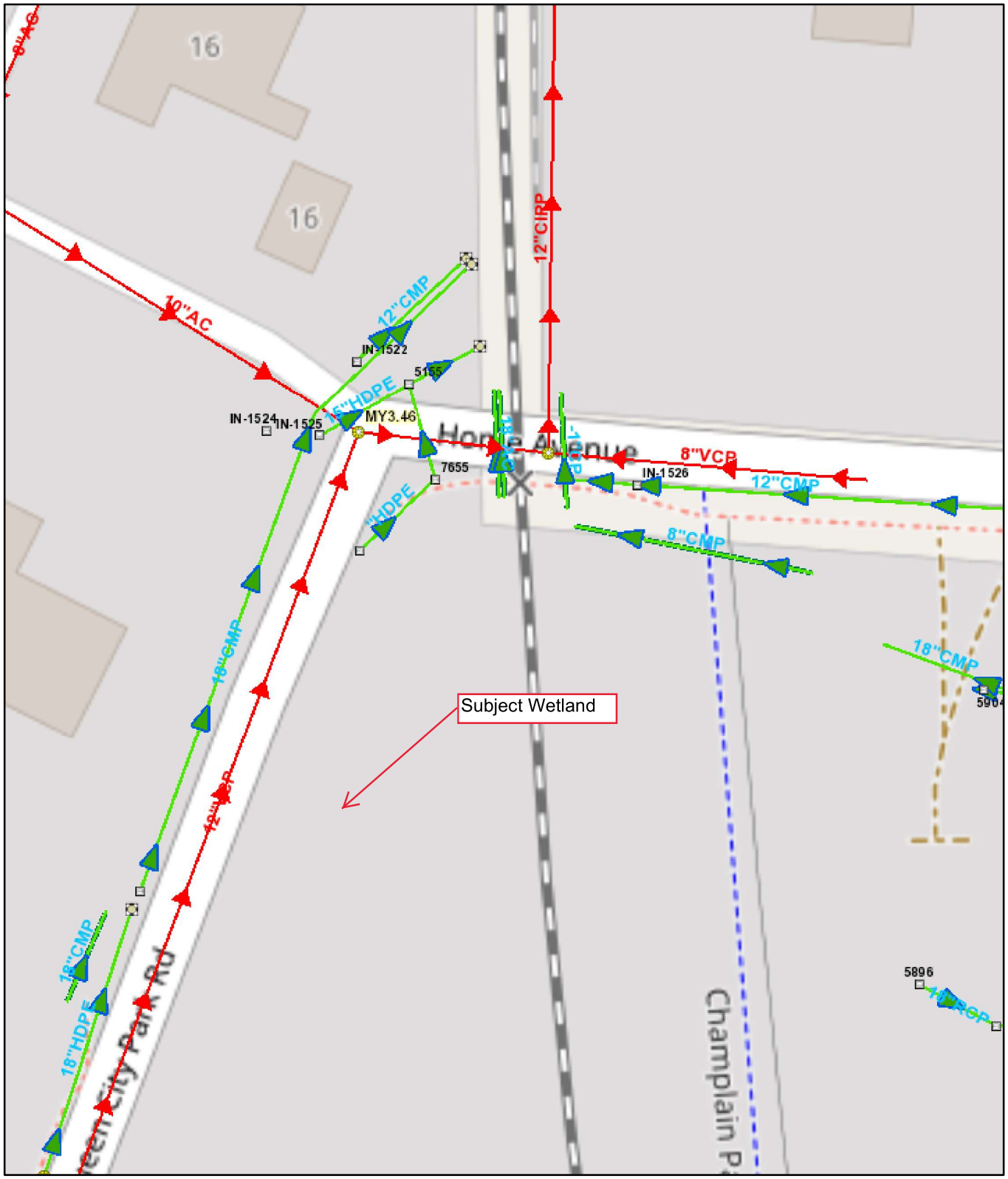
- Drainage Structure
- Flow Diversion Structure
- Virtual Drainline
- Culverts
- Pressurized Main
- Gravity Main (Abandoned)

Gravity Main

- <all other values>
- Abandoned
- Combined Waste Water
- Sewage
- Storm Runoff
- Stormwater Combined Sewer System Relief

Figure 6

BTV Sewer and Stormwater Collection System



5/19/2021, 8:52:18 AM

1:1,128

0 0.01 0.01 0.02 mi

0 0.01 0.02 0.04 km

- Subsurface Infiltration System
- Drainage Structure
- Flow Diversion Structure
- PreTreatment Structure
- Detention Structure
- Virtual Drainline
- Culverts
- Pressurized Main
- Gravity Main (Abandoned)

Gravity Main

- <all other values>
- Abandoned
- Combined Waste Water
- Sewage

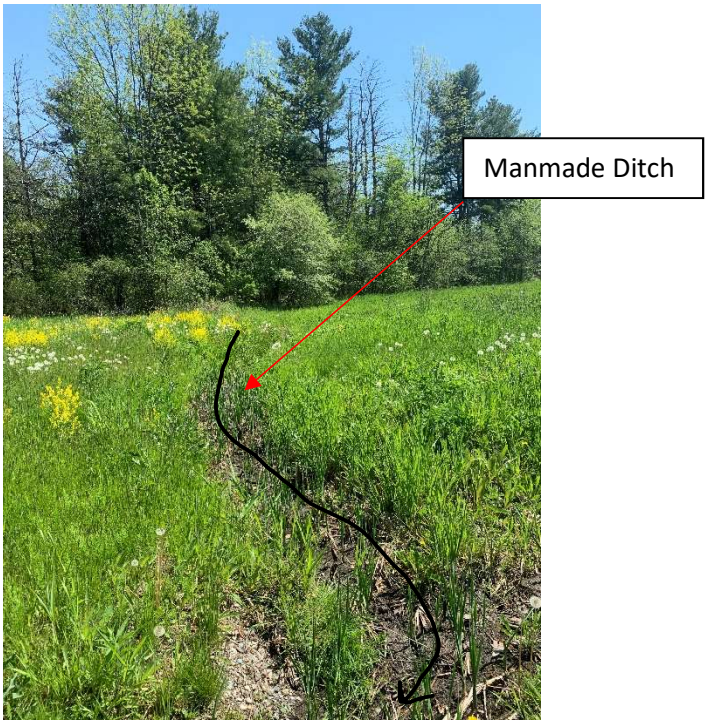
Figure 6 (cont.)


Photo Index
Date: 5/18/21 of site visit
Lake Champlain a(1) water
Mapped a(2) water
Legend
13
11
12
9
10
8
7
6
5
4
3
2
1
Autsin Ave
Home Ave
Subject Wetland
Queencity Park Rd.
Google Earth
N
1000 ft

Figure 7.a

Title: Site Visit: 5/18/2021

1. Facing south on 5/18/21 towards subject wetland.

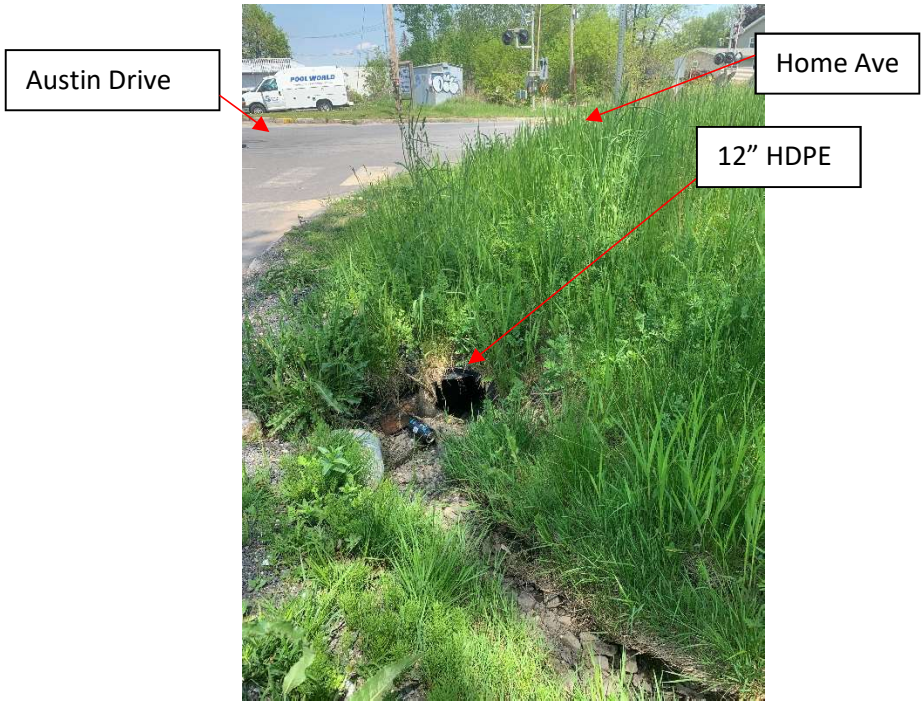


2. Facing east on 5/18/21 towards subject wetland that has been ditched at the northern boundary.

Figure 7.b

Title: Site Visit: 5/18/2021

3. Facing southwest on 5/18/21 towards town roadside ditch that the subject wetland drains into (no water in ditch at site visit).

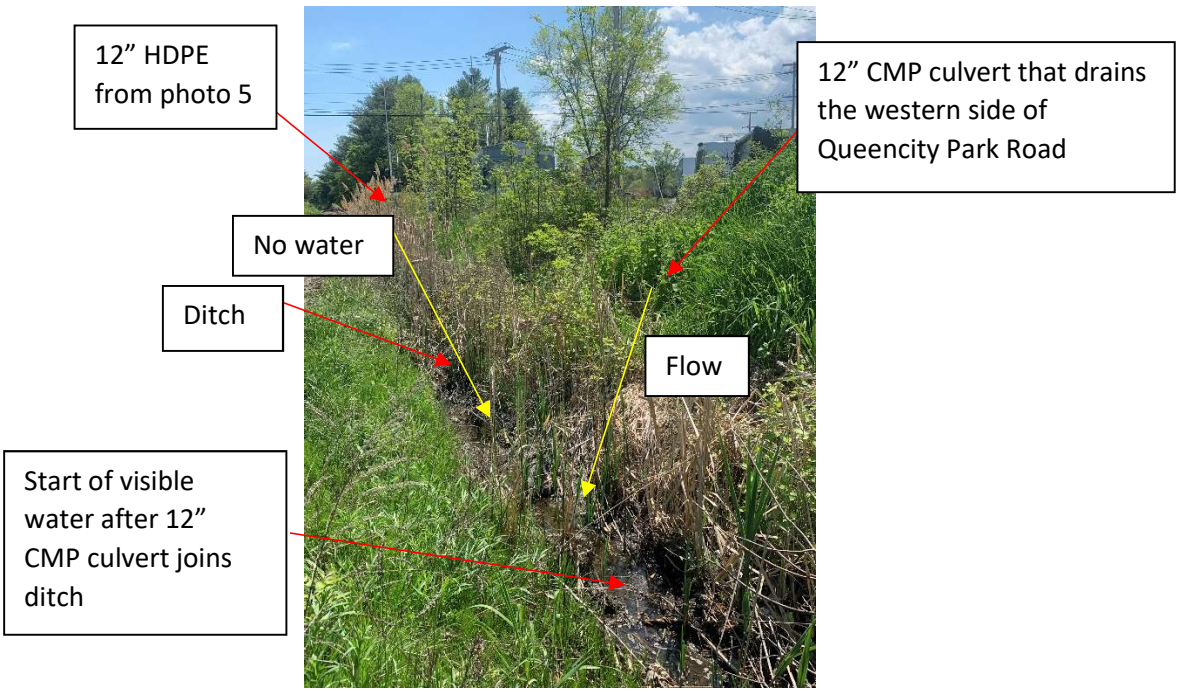


4. Facing northeast on 5/18/21 towards the end of the roadside ditch (seen in photo 3 above) that drains into a 12” HDPE that runs under the intersection of Home Ave and Austin Drive.

Figure 7.b (cont.)

Title: Site Visit: 5/18/2021

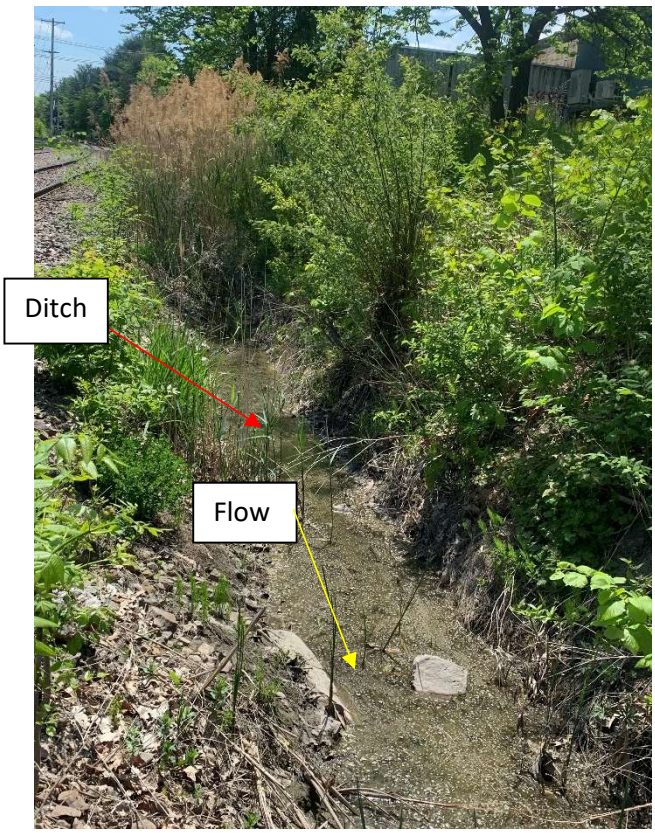
5. Facing southwest on 5/18/21 towards the outlet of the 12” HDPE. No water was present at time of site visit.



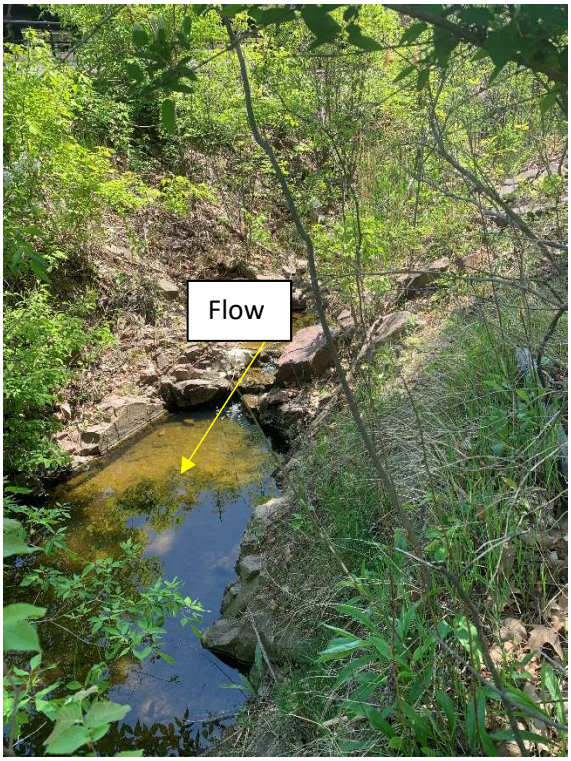
6. Facing southwest on 5/18/21 towards the 12” HDPE and the other stormwater pipes that drain here from the western side of Queencity Park Road.

Figure 7.b (cont.)

Title: Site Visit: 5/18/2021



7. Facing south on 5/18/21 towards manmade ditch off railroad tracks.

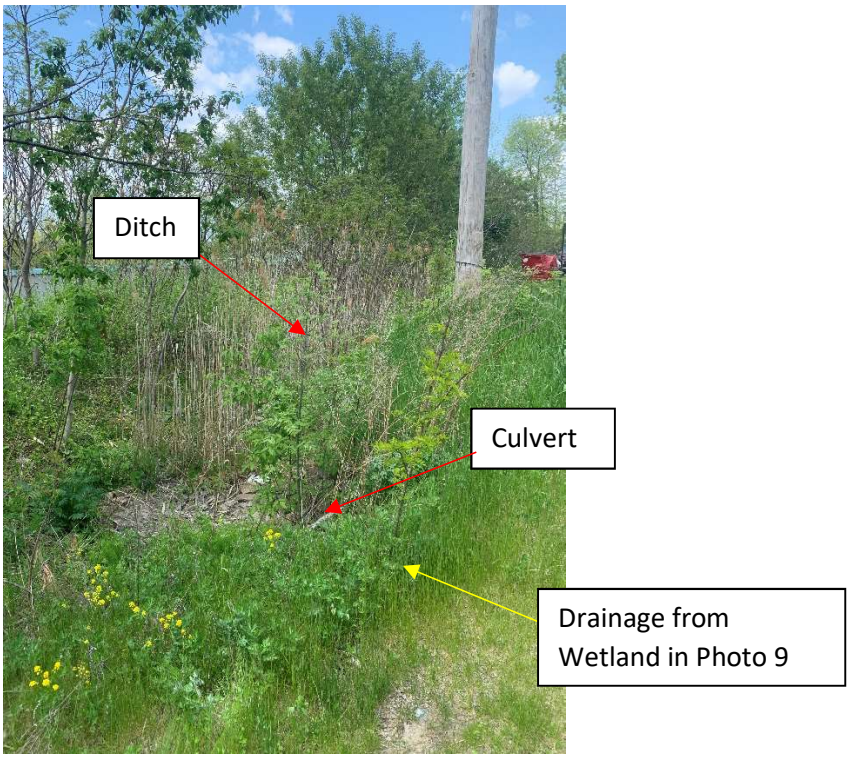


8. Facing southeast on 5/18/21 towards a tributary that meets the ditch (shown in Photo 7).

Figure 7.b (cont.)

Title: Site Visit: 5/18/2021

9. Facing east on 5/18/21 towards a wetland that connects to the tributary shown in photo 8.



10. Facing west on 5/18/21 towards ditch that connects to the wetland in figure 9 through a culvert.

Figure 7.b
(cont.)

Title: Site Visit: 5/18/2021

11. A storm drain that connects the ditch from photo 10.

12. Facing west on 5/18/21 towards a stormwater pond (east of Lake Forest Road) that the pipes from photo 11 go under this pond (said by the City of Burlington).

Figure 7.b (cont.)

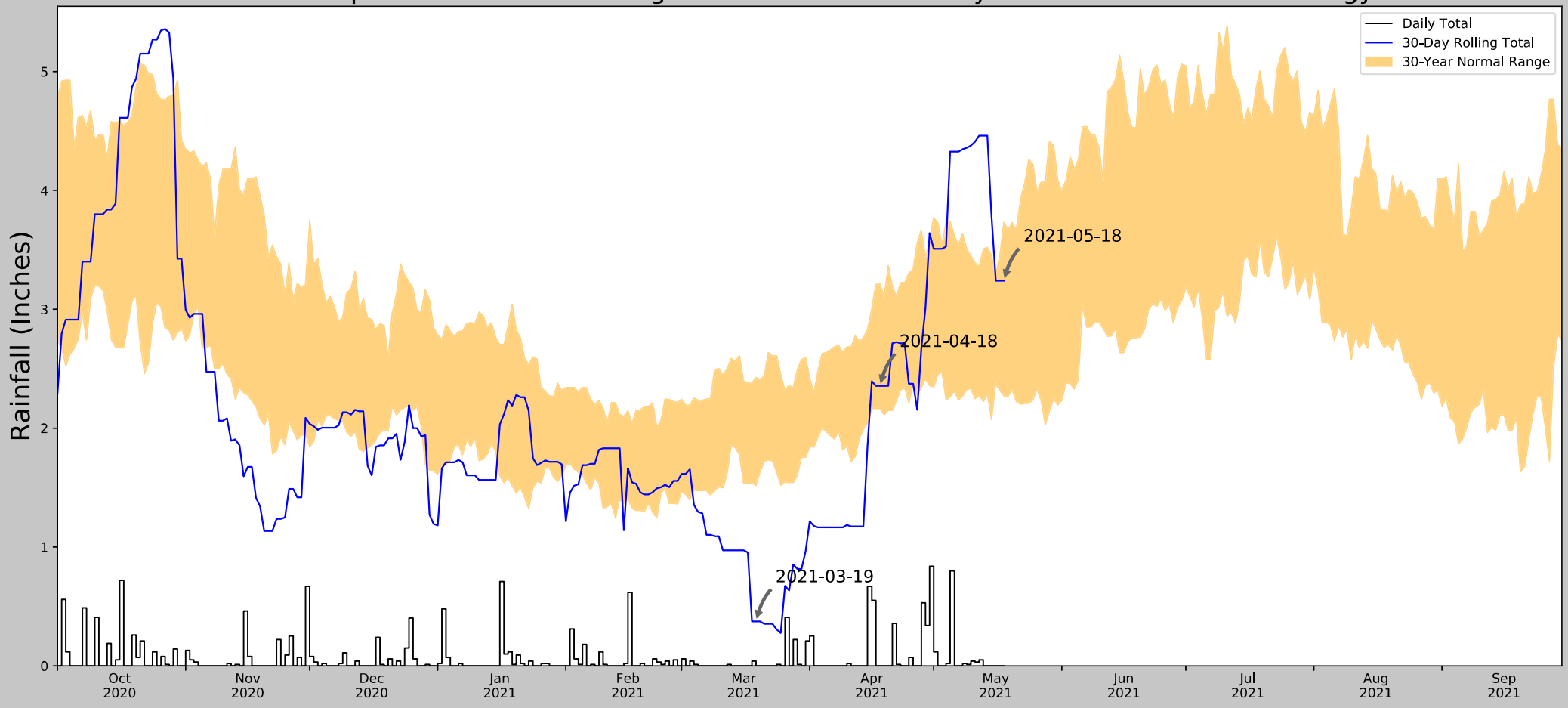
Title: Site Visit: 5/18/2021

13. Facing west on 5/18/21 towards a stormwater pond (west of Lake Forest Road) that the pipes from photo 11 go under this pond (said by the City of Burlington) and drain into a mapped a(2) water.

Figure 7.b (cont.)


Location Map
Date: 5/19/21
Legend
(a)(1) water: Lake Champlain
(a)(2) tributary
NAE-2011-02150-
Culvert Project Location
(a)(2) tributary
pipe does not severe jurisdiction, as it was relocating a (a)(2) water
pipe does not severe jurisdiction, as it was relocating an (a)(2) water
(a)(2) water, as ditch relocated a tributary
(a)(4) adjacent wetland
(a)(2) tributary
(a)(2) water, as ditch relocated a tributary
Culvert (relocating a tributary)
(b)(5) ditch, as ditch did not relocate tributary
Culvert (not relocating a tributary)
(a)(2) water as ditch relocated a tributary, shown in 1906 Topo (Figure 2)
(b)(5) ditch, as ditch did not relocate tributary
Subject Wetland: b(1) water
Review Area
Everything outside of the review area is meant for purposes to understand overall hydrological connection for the current project. This is *not* meant to be used for future projects in the adjoining parcels.
Figure 8
Google Earth
N
1000 ft

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	44.4497392, -73.2193118
Observation Date	2021-05-18
Elevation (ft)	158.71
Drought Index (PDSI)	Moderate drought (2021-04)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-05-18	2.272047	3.730709	3.240158	Normal	2	3	6
2021-04-18	2.162205	3.211811	2.354331	Normal	2	2	4
2021-03-19	1.517323	2.426378	0.374016	Dry	1	1	1
Result							Normal Conditions - 11

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
BURLINGTON INTL AP	44.4683, -73.15	330.053	3.651	171.343	2.268	11353	90

Figure 9