



**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): 4/30/2021
 ORM Number: NAE-2020-02005
 Associated JDs: N/A
 Review Area Location¹: State/Territory: Vermont City: South Burlington
 County/Parish/Borough: Chittenden
 Center Coordinates of Review Area: Latitude 44.443212 N Longitude -73.175702 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.

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.

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.

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.

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.

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.



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D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
Wetland A (0.05 ac) Wetland B (0.46 ac)	0.51	acre(s)	(b)(1) Non-adjacent wetland.	<p>The two isolated features at the site consist of concave shaped emergent wetlands. The mapped soil is Vergennes clay, 2 to 6 percent slope, moderately well drained. Wetland hydrology is likely a result of surrounding runoff from a parking lot, roads and upland, and rainfall. Wetland A, located at the southeast corner of Dorset and Swift Streets, is up slope of Wetland B and separated by upland. The wetland lacks a defined inlet or outlet. Wetland B slopes down towards the north to an 18” diameter pipe beneath Swift Street. The pipe connects into the man-made stormwater system for the Veterans Memorial Park located north of Swift Street. The entire system outlets into a stormwater pond outside the review area at the north end of the park (Figure 5). The outlet of the stormwater pond discharges to the right-of-way for Interstate 89. There are no naturally occurring surface water channels within or neighboring to the project area that contribute surface water into or out of these wetlands.</p> <p>Based on a site visit , these wetlands are not hydrologically connected to the closest known (a)(2) waters, unnamed tributaries of Potash Brook, one located about 850’ west of Dorset Street and the other about 1000’ southeast of the parcel (shown in Figures 1, 3 and 5). These wetlands do not directly abut an (a)(1), (2), or (3) water and there is no evidence that the wetlands are inundated by flooding from an (a)(1), (2), or (3) water in a typical year. The wetlands are 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 not reveal any past hydrologic connection between these wetlands and an (a)(1), (2), or (3) water.</p> <p>The features do not meet the definition of an (a)(4) water and these waters do not meet any other</p>

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.



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Excluded waters ((b)(1) – (b)(12)): ⁴			
Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
			conditions of the (b)(2) through (b)(12) exclusions; therefore the wetlands are (b)(1) excluded features. See Section III C for additional rational.

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 “Wetland Site Plan”, dated “3/19/2021” \(Figure 2\); Wetland Determination Data Forms prepared by Brian Tremback \(Lamoureux & Dickinson\), dated “8-13-2020”.](#)

This information is sufficient for purposes of this AJD.

Rationale: Based on a 4 August 2020 site visit and review of the information submitted by the applicants agent the wetlands on the site were delineated using the methodology in the 1987 "Corps of Engineers Wetlands Delineation Manual" and Northcentral and Northeast Region Supplement. The limits of the wetlands shown on the plans were consistent with conditions in the field and the wetland boundary is acceptable and sufficient for preparation of an AJD.

- Data sheets prepared by the Corps: [N/A](#)
- Photographs: [Aerial and Other: See attached Figures 5 and 6](#)
- Corps site visit(s) conducted on: [04 August 2020](#)
- Previous Jurisdictional Determinations (AJDs or PJDs): [N/A](#)
- Antecedent Precipitation Tool: [provide detailed discussion in Section III.B.](#)
- USDA NRCS Soil Survey: [Accessed on 19 April 2021 \(Figure 4\)](#)
- USFWS NWI maps: [N/A](#)
- USGS topographic maps: [1987 Burlington 7.5 minute QUAD, 1:24,000, “PROPOSED DOG PARK”\(dated “08/03/20”\) \(Figure 1\)](#)

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	1987 Burlington Vermont topographical map (Figure 1)
USDA Sources	USDA NRCS Web Soil Survey, Chittenden County, Vermont (Figure 4)
NOAA Sources	N/A.
USACE Sources	Site visit photos (Figure 6) and USACE Antecedent Precipitation Tool (Figure 7)
State/Local/Tribal Sources	Vermont Interactive Map Viewer (Figure 3)
Other Sources	Google Earth Photos (Figure 5)

B. Typical year assessment(s): On 04 August 2020 the Corps conducted a field visit to review the wetland delineation and to determine jurisdiction. During the field visit, no flowing water or standing water on the ground surface was observed on the site. The APT report for 04 August 2020 concludes that at the time of



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the field visit normal conditions exist during mild drought conditions (Figure 7), which gives support that no other waters are present to classify the wetlands as a(4) waters.

- C. Additional comments to support AJD:** This Approved Jurisdictional Determination is based on a 04 August 2020 site visit, and review of information available on public, state and federal web sites and information provided by the applicant.

Wetlands A and B are similar in character and size (Figure 2). The palustrine emergent wetlands total about 0.51 acre. These wetlands are located in shallow depressions within the landscape and hydrology is likely from rainfall and runoff from the surrounding upland. There are no naturally occurring surface water channels into or out of these wetlands. These wetlands are not hydrologically connected to the known closest jurisdictional (a)(2) water which is outside of the project area. The closeted unnamed streams are located about 850' and 1000' away and approximately 12' and 10' lower in elevation, respectively. No sign of flowing water was observed within these wetlands, nor do they appear to receive flow in a typical year from any streams. There are no hydrological connections between Wetlands A and B and Lake Champlain. Lake Champlain is the closest Traditional Navigable Water (TNW) and is about 2.2 miles away "as the crow flies". The wetlands are clearly non-navigable, isolated and intrastate. Wetland A and B are excluded features and are not jurisdictional waters of the U.S.



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Michael S. Adams
Project Manager

Michael S. Adams Digitally signed by Michael S. Adams
Date: 2021.04.22 15:31:24 -04'00'

Paul Minkin
NWPR AJD Team

Paul Minkin Digitally signed by Paul Minkin
Date: 2021.04.22 16:19:15 -04'00'

Frank J. DelGiudice
Branch Chief

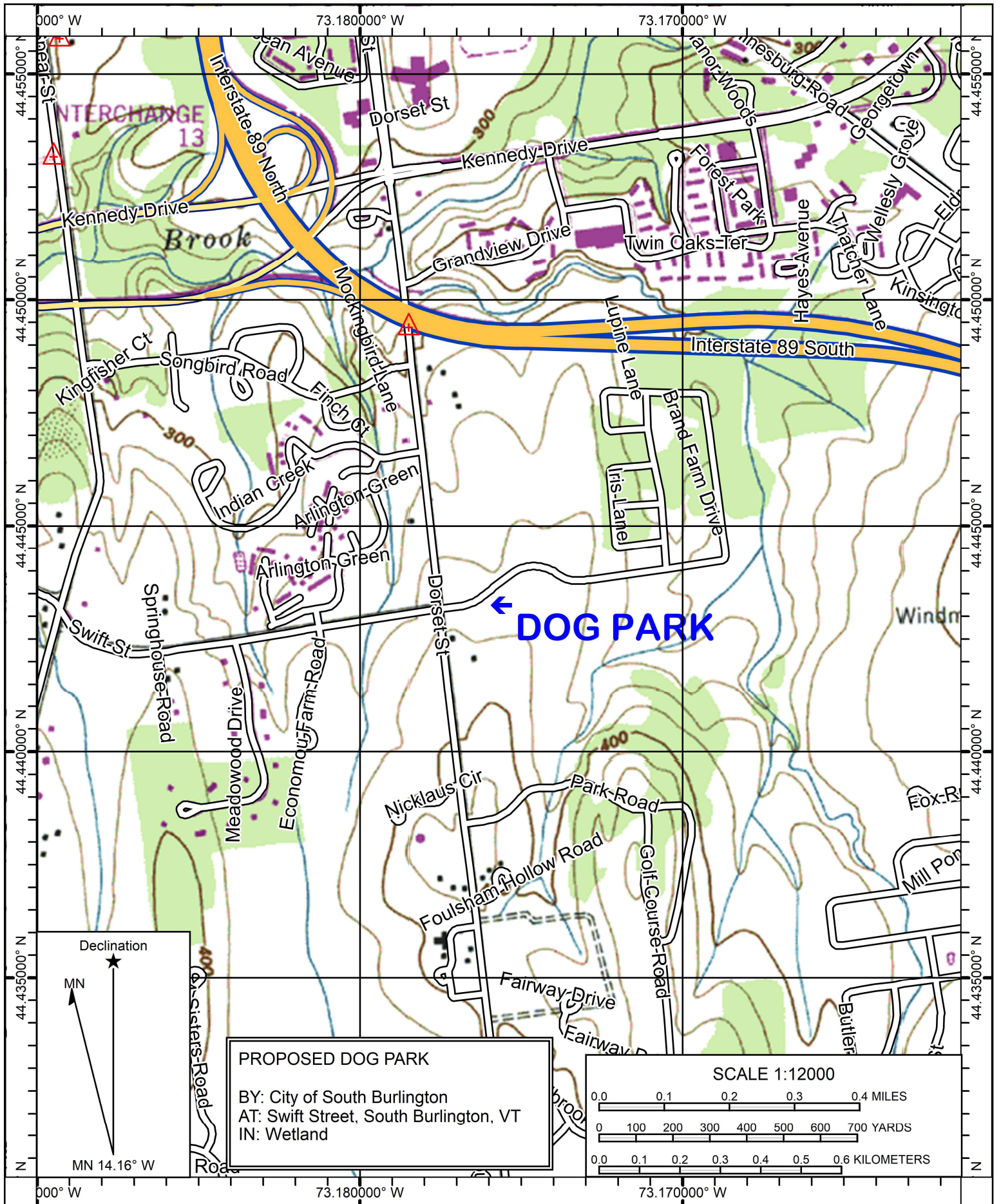
Frank J Del Giudice Digitally signed by Frank J Del Giudice
Date: 2021.04.23 06:02:55 -04'00'

Robert J. DeSista
PATs Chief

DESISTA.ROBERT.J.1229271241 Digitally signed by DESISTA.ROBERT.J.1229271241
Date: 2021.04.26 08:05:12 -04'00'

Tammy R. Turley
Chief Regulatory Division

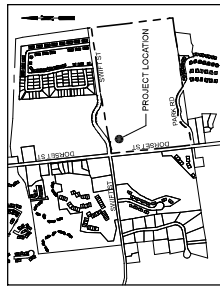
DESISTA.ROBERT.J.1229271241 Digitally signed by DESISTA.ROBERT.J.1229271241
Date: 2021.04.26 08:14:57 -04'00'



Name: BURLINGTON
 Date: 08/03/20
 Scale: 1 inch = 1,000 ft.

Location: 44.443212° N, 73.175702° W
 Caption: NAE-2020-02005

Figure 1



LEGEND

- PROJECT PROPERTY BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING CONTOUR
- EXISTING TRAIL
- UTILITY POLE
- WETLAND
- EXISTING TREE

NOTE

WETLANDS A AND B SHOWN HEREON WERE BELIEVED TO BE WETLANDS AS OF JULY 18, 2002 AND CONFIRMED BY JULE POLLENS/SEC OF THE VERMONT WETLANDS PROGRAM ON SEPT 25, 2002.

Project No.	20013
MAP	
Drawn	
Scale	AS SHOWN
Sheet number	5119-0221
Checked	
By	
Date	5-19-02
Scale	AS SHOWN
Sheet number	
WT1	

City of South Burlington
Wheeler Park - Dog Park

Wetland Site Plan

Lamoureux & Dickison
 100 High Street, Burlington, VT 05401
 44 Main Street, Essex, VT 05742
 802-278-4450 www.Landquadrants.com

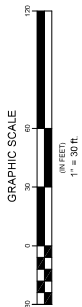
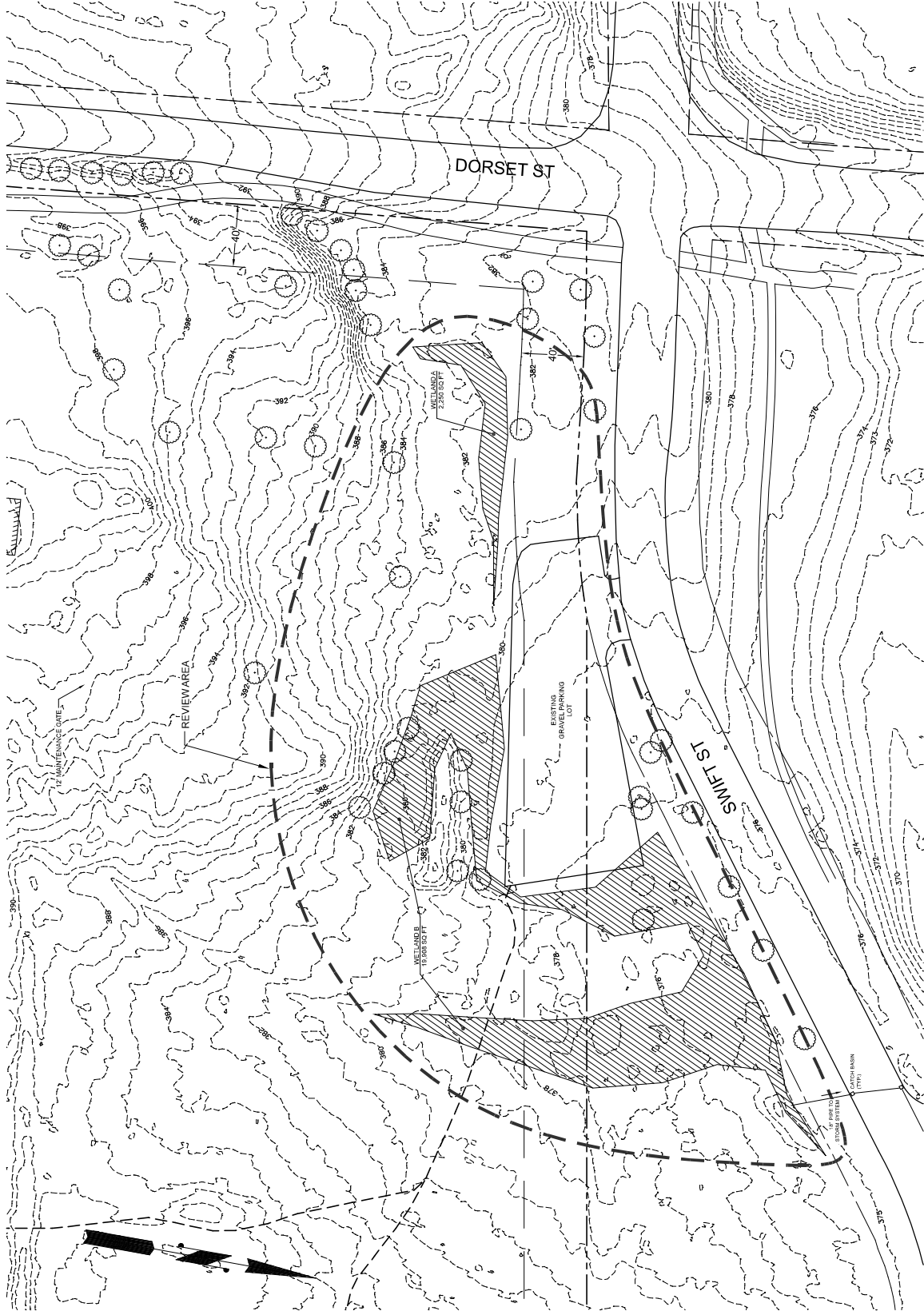


Figure 2



LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soil units
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints



NOTES

This map was created with the VT Interactive Map Viewer.

Figure 3



1:6,678
April 19, 2021

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. VCGI and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

0 0.11 0.21 Miles
THIS MAP IS NOT TO BE USED FOR NAVIGATION
WGS_1984_Web_Mercator_Auxiliary_Sphere
© Vermont Center For Geographic Information

Soil Map—Chittenden County, Vermont
(City of South Burlington, Proposed Dog Park)

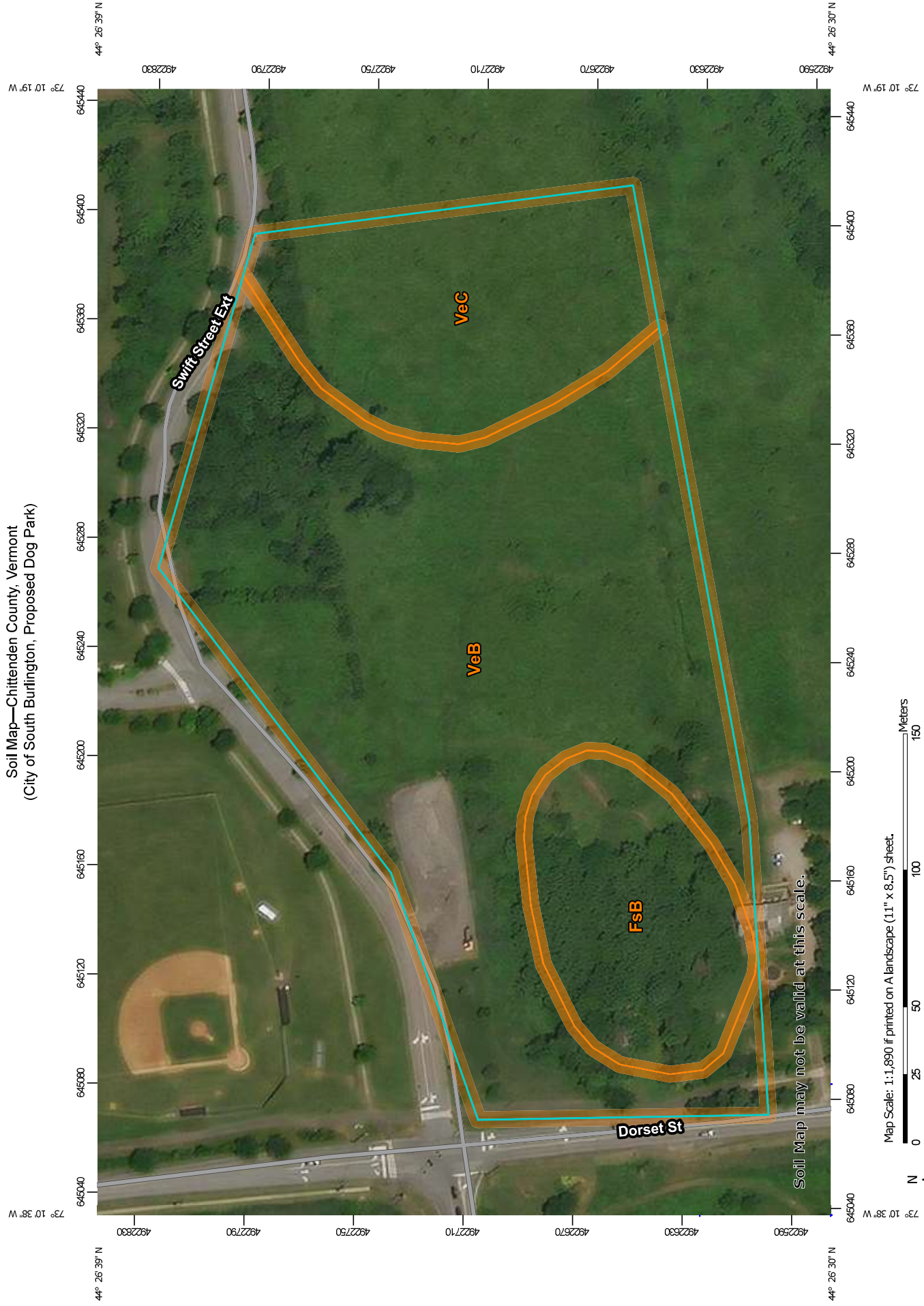


Figure 4

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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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 4, cont.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FsB	Farmington-Stockbridge rocky loams, 5 to 12 percent slopes	1.8	14.2%
VeB	Vergennes clay, 2 to 6 percent slopes	8.4	66.3%
VeC	Vergennes clay, 6 to 12 percent slopes	2.5	19.6%
Totals for Area of Interest		12.7	100.0%

Chittenden County, Vermont

VeB—Vergennes clay, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 9g62

Elevation: 90 to 600 feet

Mean annual precipitation: 30 to 36 inches

Mean annual air temperature: 45 to 52 degrees F

Frost-free period: 120 to 180 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vergennes and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vergennes

Setting

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: clay

H2 - 6 to 14 inches: clay

H3 - 14 to 25 inches: clay

H4 - 25 to 65 inches: clay

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 12 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Covington

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Kingsbury

Percent of map unit: 5 percent

Hydric soil rating: No

Vergennes, moderately shallow variant

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

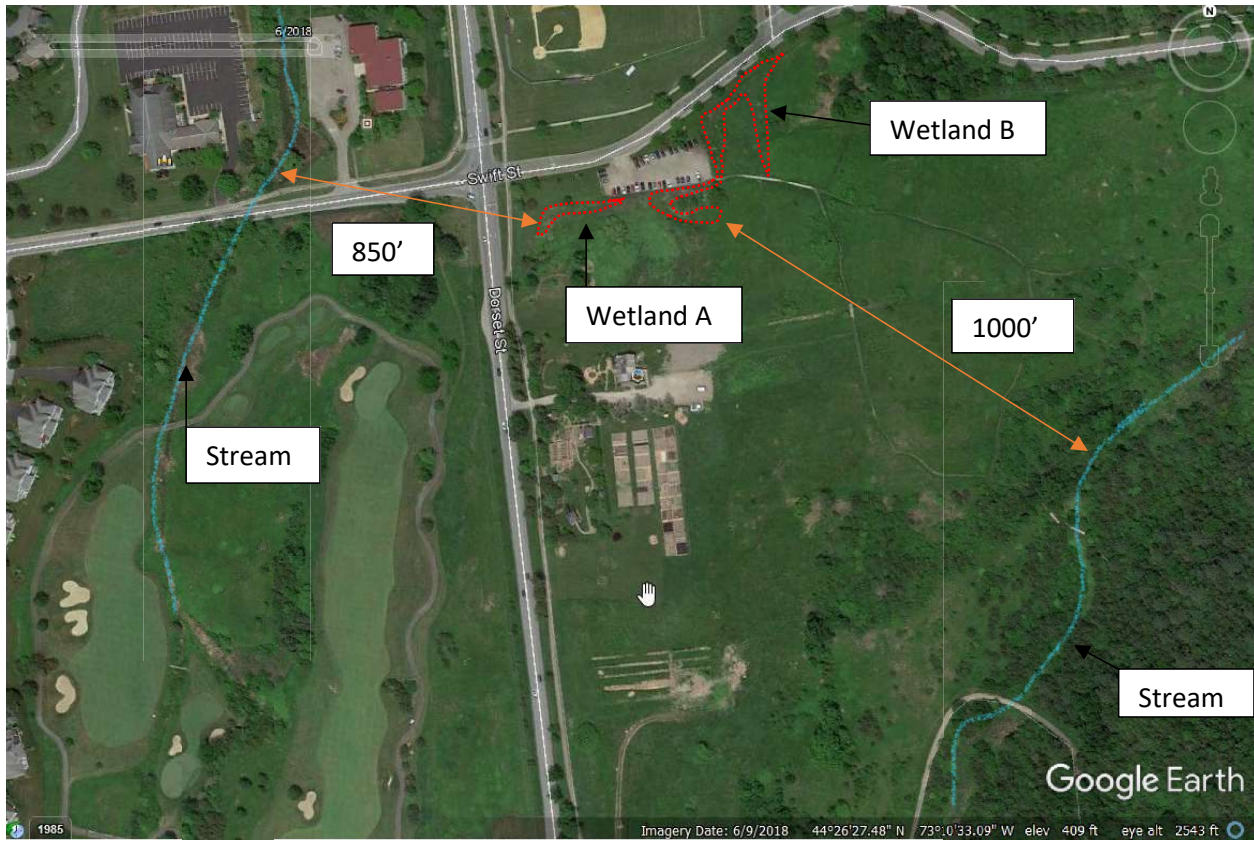
Soil Survey Area: Chittenden County, Vermont

Survey Area Data: Version 23, Jun 4, 2020



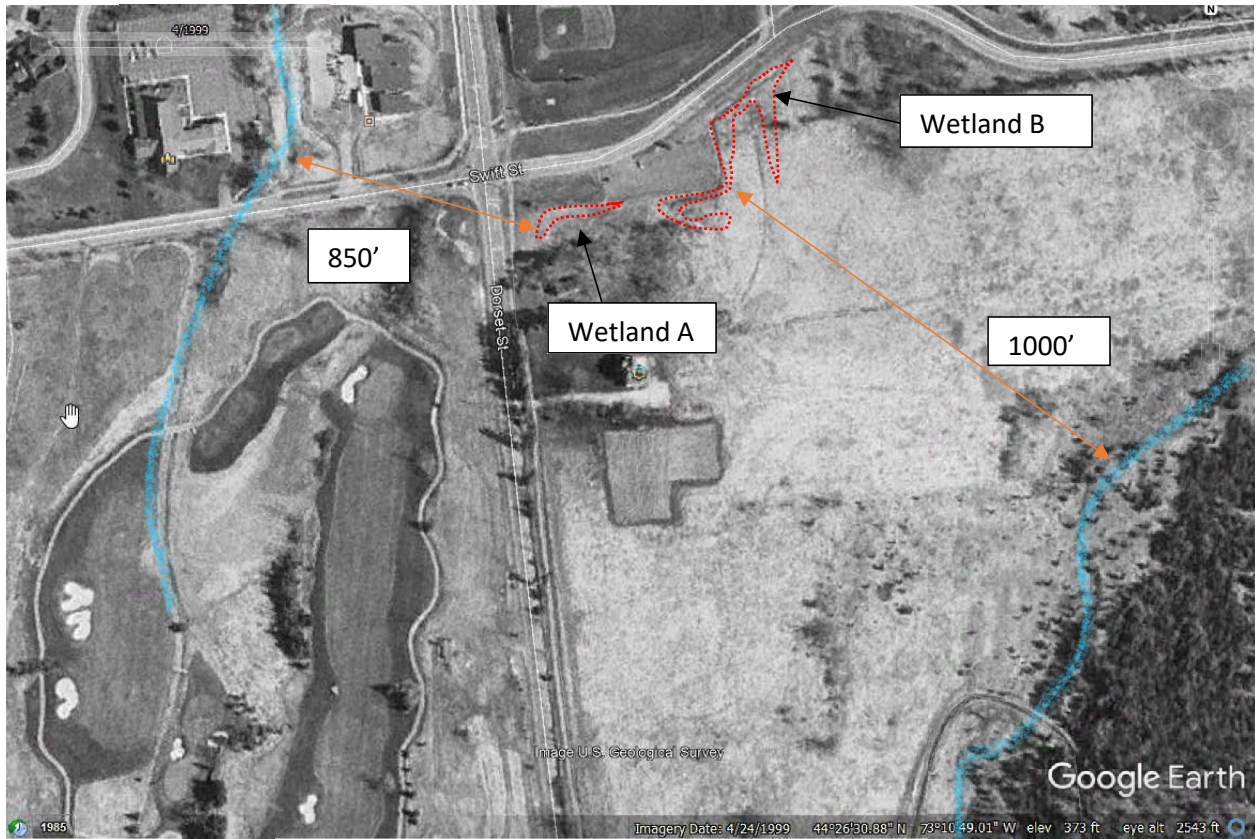
Diagram of catch basins and connecting pipes of existing stormwater treatment systems in the project vicinity provided by the City of South Burlington.

Figure 5



2018 Google Earth photo

Figure 5



1999 Google Earth photo

Figure 5, cont.



Photo taken 4 August 2020. Facing east toward Wetland A.



Photo taken 4 August 2020. Standing in Wetland B facing west towards Wetland A and Dorset Street.

Figure 6



Photo Taken 4 August 2020. Standing in upland looking north towards Wetland B.

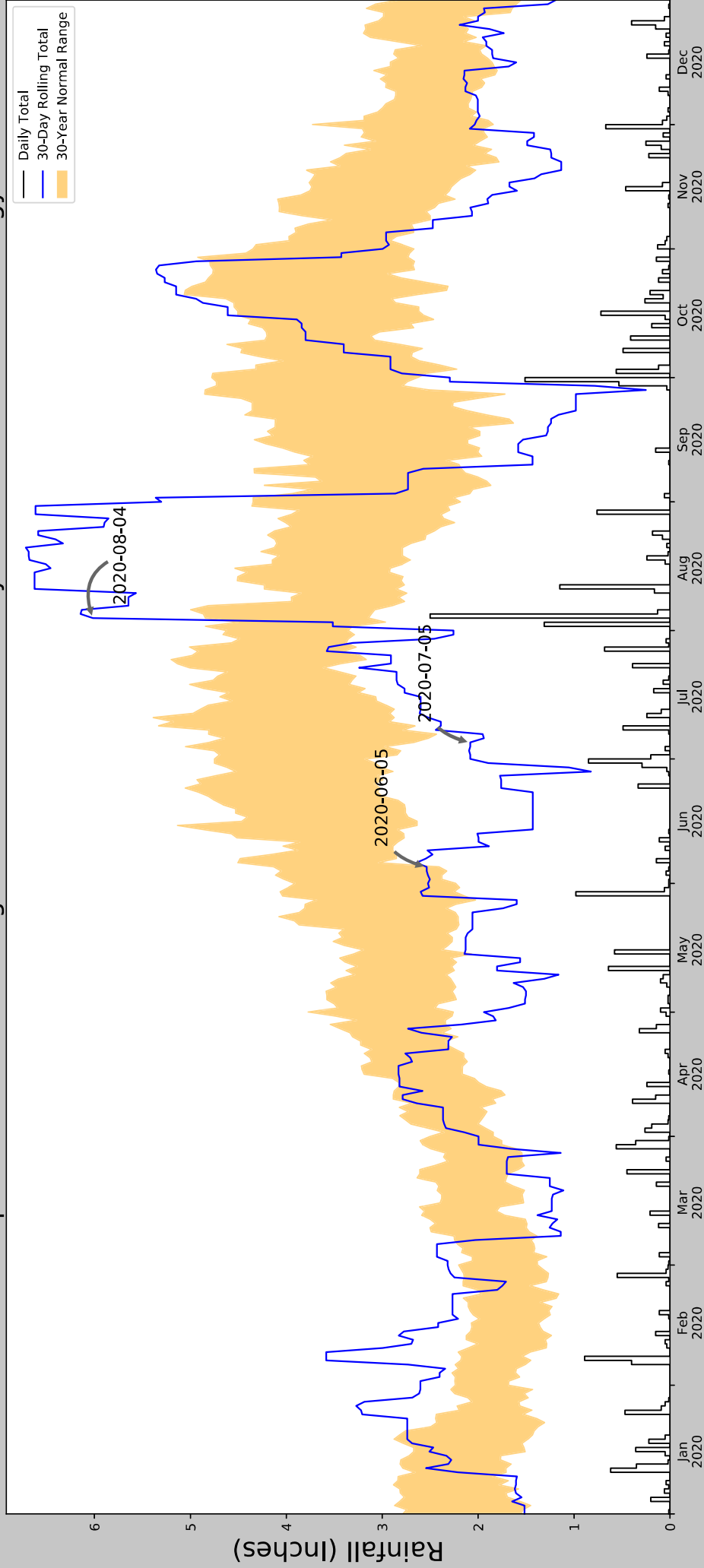


Photo taken 4 August 2020. Facing north towards 18" culvert beneath Swift Street from Wetland B.



Photo taken 4 August 2020. Facing south across Swift Street looking at catch basin and Wetland B.

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



30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2020-08-04	3.143701	4.84252	6.015748	Wet	3	3	9
2020-07-05	2.672047	4.808268	2.082677	Dry	1	2	2
2020-06-05	2.410236	4.132284	2.535433	Normal	2	1	2
Result							Normal Conditions - 13

Coordinates	44.443089, -73.175602
Observation Date	2020-08-04
Elevation (ft)	380.2
Drought Index (PDSI)	Mild drought
WebWIMP H ₂ O Balance	Dry Season

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	2.151	50.147	1.076	11352	90



Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

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

Figure 7