

Vernal Pool Mapping by The Town of Fairfield

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Definition:

A vernal pool is a sensitive and critical wetland habitat found in our area. It may be defined as,

"...seasonal bodies of water that attain maximum depths in spring or fall, and lack permanent surface water connections with other wetlands or water bodies. Pools fill with snowmelt or runoff in the spring, although some may be fed primarily by groundwater sources. The duration of surface flooding, known as hydroperiod, varies depending on the pool and the year; vernal pool hydroperiods range along a continuum from less than 30 days to more than 1 year. Pools are generally small in size (<2 acres), with the extent of vegetation varying widely. They lack established fish populations, usually as a result of periodic drying, and support communities dominated by animals adapted to living in temporary, fishless pools. In the region, they provide essential breeding habitat for one or more wildlife species including fairy shrimp, blue-spotted salamander, Jefferson salamander and wood frogs."

Why Map Vernal Pools?

- Highly valuable natural resource that is critical to the obligate species for their survival
- Can't protect them when you don't know where they are
- Agency/Board/Department awareness
- Public knowledge (leads to sharing info)
- Awareness = Appreciation
- What about negative consequences?

Project Objectives

- Create a working database by locating pool locations on public and private properties
- Create a new layer on Town GIS
- Establish relationships with landowners and bring pool presence to their attention
- Protective signage for VPs located on Town open spaces
- Encourage other municipalities to initiate similar projects

Tools Used for This Mapping Project

- Historic notes and scribbles
- Department employee knowledge
- Permit documents & files
- Miles of windshield surveys
- High-resolution aerial photos
- Boots on the ground – go take a hike!
- Consultants/experts

(4-10-00)

Lake Mohegan Open Space -

Northwest quadrant, west side
of river, on both sides of

- power lines, 340 paces due
south from boulder shaped like
a dinosaur, several areas
possible under cover of two
large pin oaks.



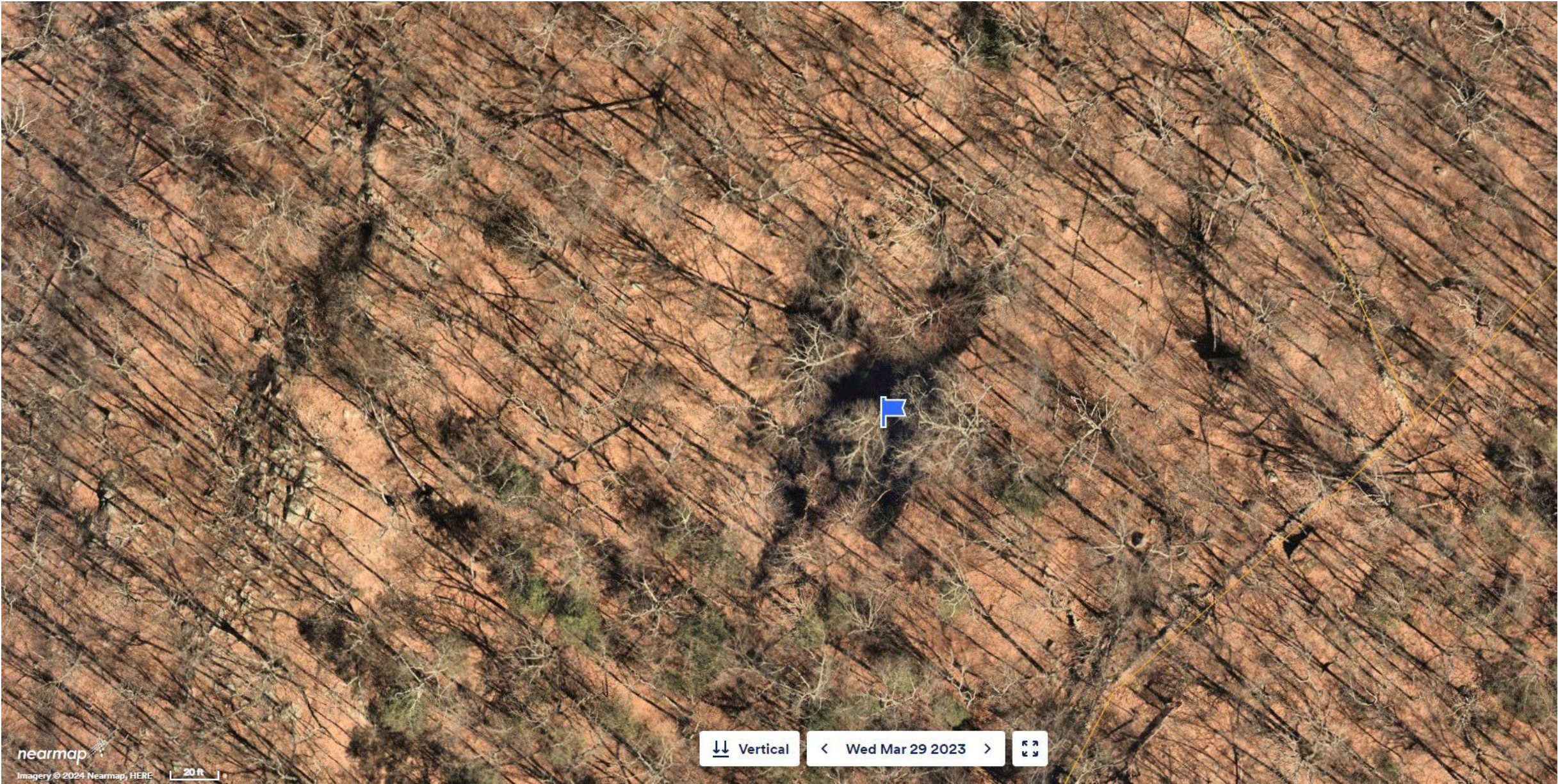
Windshield Survey



Photos of Confirmed Pools



Example: Aerial Image of VP-4



Vernal Pool Results

- **18 total pools located**
- **8 located on Town open space properties**
- **5 on private residential properties**
- **5 on private organizations properties**
- **10 confirmed and 8 unconfirmed (but look promising 😊)**
- **Recent resident report of new VP for examination**

ID	OWNER	ADDRESS	OPEN SPACE	TOTAL LAND ACRES	POOL SIZE (SF)	GPS COORDINATES	OBLIGATE SPECIES	OBSERVATIONS	DATE OBSERVED	NOTES
VP1	Town of Fairfield	3401 North Street	Brett Woods	182.50	2,300	41° 12' 12", 73° 19' 19"	Confirmed	Egg masses	03/08/23	Yellow Trail, near boardwalk
VP2	Town of Fairfield	330 Treasure Road	Brett Woods	182.50	4,200	41° 11' 57", 73° 19' 28"	Confirmed	Egg masses	03/08/23	Yellow Trail
VP3	Town of Fairfield	330 Treasure Road	Brett Woods	182.50	1,200	41° 11' 49", 73° 19' 46"	Confirmed	Egg masses	03/08/23	Trail head at Treasure Road
VP4	Town of Fairfield	1320 Westport Turnpike	Brett Woods	182.50	6,700	41° 12' 27", 73° 19' 34"	Confirmed	Fairy Shrimp	03/08/23	350ft south of cabin
VP5	Town of Fairfield	120 Perry Street	Perry'S Mill Pond	37.34	4,000	41° 9' 17", 73° 16' 9"	Unconfirmed	Unconfirmed	03/08/23	Near fish ladder, no obligate species at the time
VP6	Town of Fairfield	2425 Morehouse Highway	Grace Richardson	87.40	4,500	41° 12' 39", 73° 16' 2"	Confirmed	Egg masses	03/08/23	ROW, adjacent to Morehouse Highway
VP7	Town of Fairfield Town of Easton	388 Hoyden's Lane	Hoyden's Hill	87.40	1,000	41° 13' 33", 73° 17' 2"	Confirmed	Egg masses (Spotted salamander), tadpoles	05/11/23	ROW, adjacent to Beers Road with connecting culvert into Easton
VP8	Audubon Society of CT	2325 Burr Street	Private	147.14	125	41° 11' 45", 73° 17' 45"	Unconfirmed	Unconfirmed	05/18/23	West of Dirty Swamp Pond - dry at the time of inspection
VP9	Audubon Society of CT	2325 Burr Street	Private	147.14	1,800	41° 11' 51", 73° 18' 3"	Unconfirmed	Unconfirmed	05/18/23	North of Sturges Pond - dry at the time of inspection
VP10	Audubon Society of CT	2325 Burr Street	Private	147.14	250	41° 11' 58", 73° 17' 59"	Unconfirmed	Unconfirmed	05/18/23	Trillium Junction - dry at the time of inspection
VP11	Audubon Society of CT	2325 Burr Street	Private	147.14	1,500	41° 12' 3", 73° 17' 46"	Confirmed	Egg masses	05/18/23	Seep Pond - shallow pool adjacent to trail, abuts year-round wetlands
VP12	Grella	275 Beers Road	Private	2.15	750	41° 13' 53", 73° 16' 50"	Unconfirmed	Unconfirmed	03/08/23	Visible from Beers Road
VP13	Bragg	1207 Congress Street	Private	3.00	350	41° 12' 21", 73° 16' 4"	Unconfirmed	Unconfirmed	03/08/23	Land-locked parcel, adjacent to Merritt Parkway
VP14	Black Rock Congregational Church	3685 Black Rock Turnpike	Private	13.28	1,500	41° 11' 55", 73° 16' 6"	Confirmed	Egg masses (Spotted salamander), Wood frogs	04/01/05	North of northwestern parking lot - Confirmed by Dr. M. Klemens per IWP2005-11. VP protected under Conservation Easement
VP15	Caroon	11 Judges Hollow Road	Private	1.60	800	41° 12' 32", 73° 19' 36"	Confirmed	Egg masses	03/08/23	Abandoned swimming pool
VP16	Umbro	270 Acorn Lane	Private	0.85	3,000	41° 8' 48", 73° 17' 24"	Unconfirmed	Unconfirmed	03/08/23	Visible from Acorn Lane
VP17	Schanne Marcus	87 Fogg Wood Circle 81 Fogg Wood Circle	Private Private	3.08 2.05	14,250	41° 12' 45", 73° 19' 21"	Confirmed	Tadpoles	05/22/23	Located behind (west of homes) both properties, Schanne reports that it dries up every year. VP protected under Conservation Easement
VP18	Town of Fairfield	120 Perry Street	Perry's Mill Pond	64.6	200	41° 9' 13", 73° 16' 23"	Unconfirmed	Unconfirmed	6/8/2023	Dried up due to late season inspection

Relevant GIS Layers

The screenshot displays the 'Town of Fairfield GIS' web application. The interface includes a top navigation bar with the town's logo and name. Below this is a 'Layers' panel on the left side, which contains a search bar and a list of layer categories. A yellow hand icon points to the 'Conservation' section of the layers list. The main map area shows an aerial view with several overlays: a yellow polygon boundary, a blue circular boundary, and various colored regions (red and blue) representing different land use or conservation zones. Labels like 'VP15', 'VP4', '1249', '1206', and '1176' are visible on the map. At the bottom, there is a navigation bar with 'Home', 'Layers', and 'Parcels (1)' buttons, along with a scale bar and a '2019 AE...' label.

Town of Fairfield GIS

Layers

All Available Layers

Filter Layers... Filter

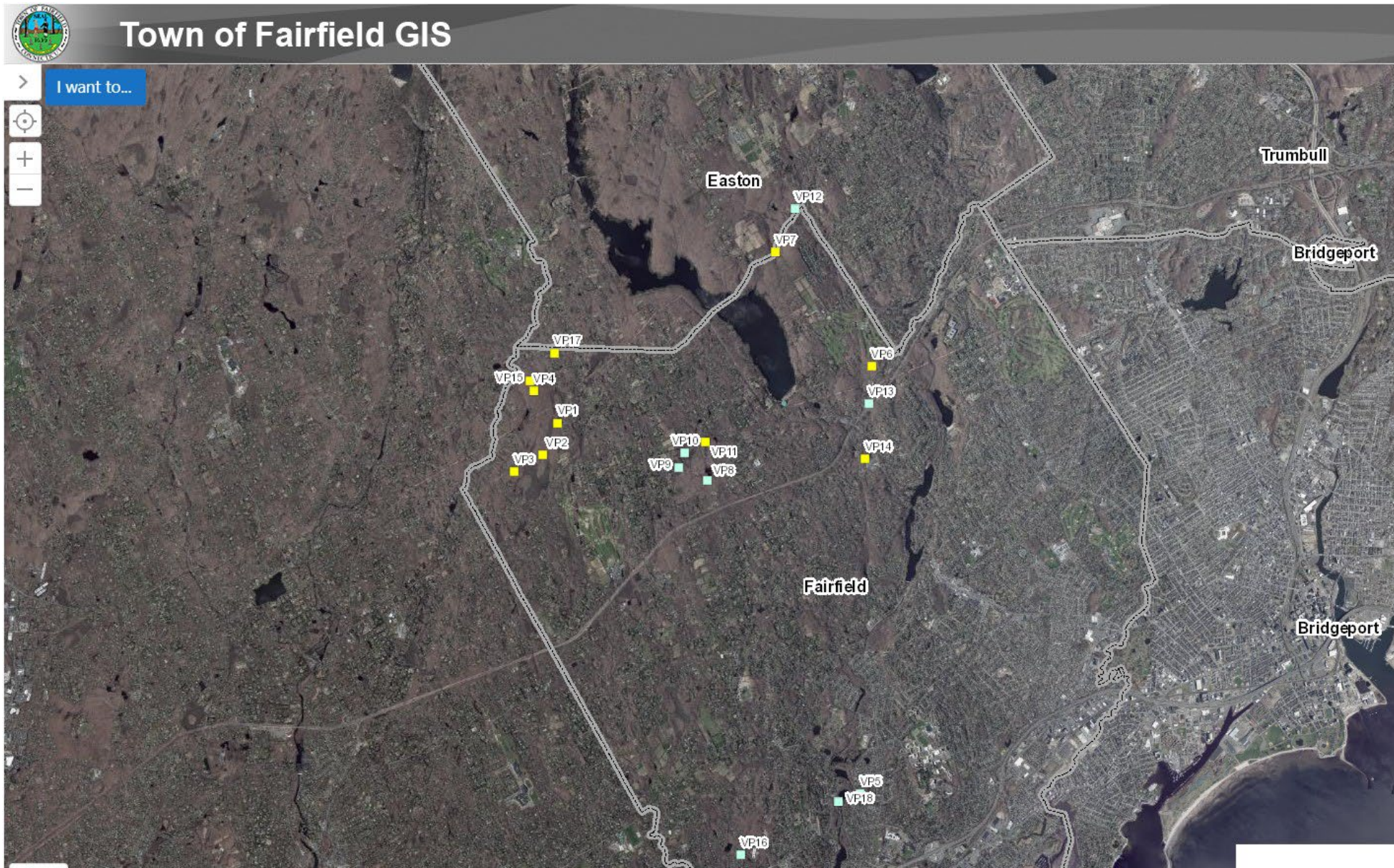
- Operational Layers
- Property Information
- Fairfield Land Use
- Conservation
 - VernalPool
 - Streams
 - Upland Review Area
 - Wetlands
- Zoning
- Contours
- Latest FEMA Information
- Regional Basemap
- Base Maps

Home Layers Parcels (1)

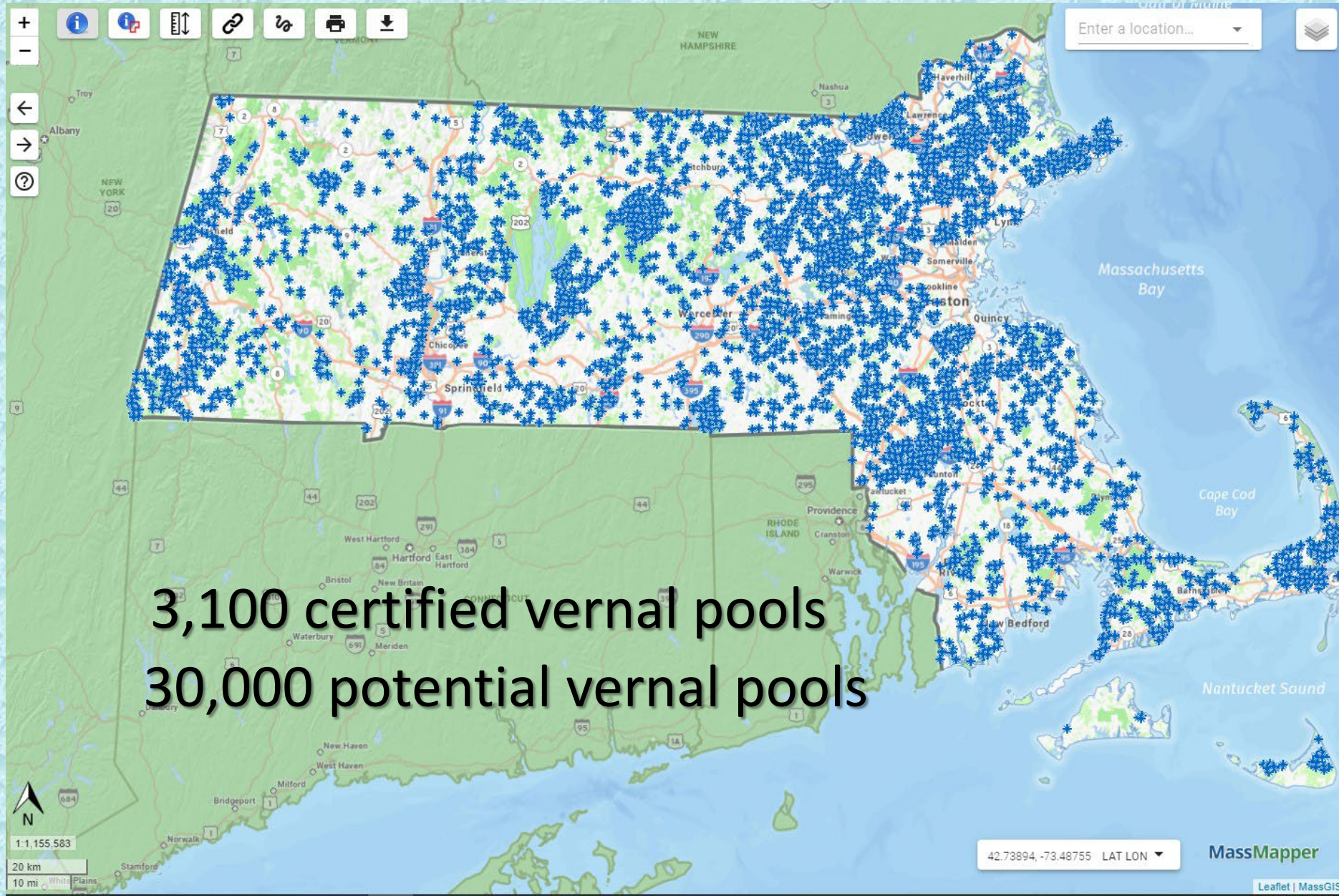
2019 AE... 0 100 200ft 1:500

Town of Fairfield | GBRC | GBRC, S

Available GIS Layer



MassMapper has identified:



**CRITICAL
AMPHIBIAN
BREEDING
HABITAT**

PLEASE KEEP DOGS OUT
FEBRUARY THROUGH JUNE



Taking Action

Vernal Pool Resources for the Public

- <https://www.epa.gov/wetlands/vernal-pools>
- https://www.blm.gov/or/resources/recreation/tablerock/files/vernal_intro.pdf
- <https://portal.ct.gov/DEEP/Water/Wetlands/Vernal-Pools>
- <https://ctwetlands.org/index.html>
- <https://www.vernalpool.org/>
- https://www.vernalpools.me/wp-content/uploads/2015/06/6_Eggmassidentification.pdf

Thank You



- Fairfield Conservation Commission & Inland Wetlands Agency
- My Department Staff
- MetroCOG
- SWCA Environmental Consultants
- CT Audubon
- Participating Private Landowners
- Support from CAWS