

Septic Upgrade Plan

Prepared for: WELLFLEET BOARD OF HEALTH

Prepared by: WELLFLEET SELECTBOARD

September 1, 2022

MAURICE'S SEPTIC UPGRADE PLAN

SUMMARY

Objective

To provide the Wellfleet Board of Health with adequate information and a timeline for the board to use in its decision as to whether to grant a waiver to the Town of Wellfleet regarding septic upgrades that would typically be required within 2 years of the transfer of property. The orders of condition and length of this waiver are at the discretion of the Board of Health. The Selectboard hopes that the additional information provided within this revised application provides the Board of Health with sufficient information to determine the length of time it is willing to grant a waiver for. The property is being purchased with the primary purpose of creating housing on the 21 acre site. The site will also provide the needed municipal land in South Wellfleet for a wastewater system to be located in order to effectively treat nitrogen in the surrounding area.

Goals

- The Town of Wellfleet is seeking a waiver for a period of time necessary to install a treatment facility at 80 State Hwy/Maurice's Campground in order to comply with the P&S agreement to continue to operate the campground without change of use or increase in design flow.
- The Selectboard will begin the planning process immediately upon closing to determine the use, density and to site housing.
- The Town will site and construct an appropriate wastewater system that can be used as part of our adaptive management 208 Plan, a long term strategic goal to improve water quality.
- The Town will develop the property to alleviate the housing crises while simultaneously reducing the net load of nitrogen in the surrounding area.
- Install a treatment system that assists in meeting the TDML at build-out within the Watershed.

Solution

The Selectboard has produced a timeline and proposed conditions and commitments on behalf of the Town to present to the Board of Health. The intent is to layout the steps we will take, when they will be taken, and convey the Town's commitment to reduce nitrogen loading under its watershed permit application. It is the hope of the Selectboard that these commitments and conditions will satisfy the concerns of the board and ultimately lead to a better long term outcome than could otherwise be realized. In the timeline we have delineated the various steps that need to be taken to install a wastewater system that is appropriate and sited correctly for the intended use of the property. At the end of the process, the non-compliant systems and title 5 systems will be removed and the town will install a treatment system utilizing the best available technology to treat the entity of the present day wastewater flow. This will require a groundwater discharge permit. The groundwater discharge permit is a binding, enforceable obligation, supporting an extension under Title 5 15.305 and BOH reg 603.

PROPOSED CONDITIONS

- **The current systems shall only be used seasonally from May - October with the exception of the year round home on the premises.**
 - **The all systems shall be pumped and inspected on an annual basis or more frequently at the discretion of the Board of Health subsequent to closing the campground.**
 - **The Selectboard and Town shall commence its proposed project timeline within one month post closing overseen by the Board of Health.**
 - **The Campground Operator shall not allow on site pump out for transient campers.**
 - **The Health Agent shall receive all test results from the inspections and monitor the public water supply test results.**
 - **The Selectboard makes a documented and binding commitment to install the best nitrogen reduction wastewater system according to Mass DEP standards that is available, practicable and appropriate to serve the future use as well as the surrounding area.**
 - **The Selectboard shall apply for a groundwater discharge permit, which is a binding and enforceable obligation under Title 5 15.305 and BOH reg 603.**
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Septic Upgrade Timeline

Phase 1. Targeted Completion Dates:



PROJECT TIMELINE

Phase 1. - Due Diligence - Completed

- a. Conditions of grounds, buildings, and structures
- b. Phase I Environmental Site Assessment
- c. Wetland Delineation (MHP ~ Bohler)
- d. Funding Sources for additional site assessments and evaluations identified

Phase 2. System Inspections, Wetland Delineations, Survey, and Engineering *Commence immediately upon closing - Target Completion Date: 4/2023*

- a. Wetland Resource Delineation Completed as of 08/29/22 (MHP ~ Bohler)
- b. Immediately upon transfer ~ sanitary inspection of all 35 systems - \$35,000-50,000, generate the location of systems 1-2 months. Overseen by the BOH
- c. Assessment and location of current systems, size of the current flow volumes including currently compliant title 5 systems in addition to cesspools (the entirety of existing load), current site layout (if beneficial) \$50,000+ 6-12 months
- d. Full Perimeter Survey
- e. Phase II environmental assessment. 6-12 month

Phase 3. Development - Wastewater System Evaluation, Feasibility Study & Engineering

Start Date: 7/2023 - Target Completion Date: 7/2024

- a. Layout for treatment system. 12 months
- b. Soil characterization study of disposal area & Perc Testing \$5,000-10,000 1 month

Phase 4. RFP for Amphidrome, Equivalent or Superior System

Start Date: 7/2024 - Target Completion Date: 10/2024

Phase 5. Layout of the Housing Project Public Process 12-36 months

Start Date: 11/2022 Target Completion Date: 11/2025

Phase 6. Groundwater Discharge Permit. 12-18 months (DEP) \$200,000

Start Date: 11/2024 Target Completion Date: 11/2025

Phase 7. Contractor Install Phase I (18-24 months)

Start Date: 7/2026 - Target Completion Date: 7/2028

FUNDING SOURCES

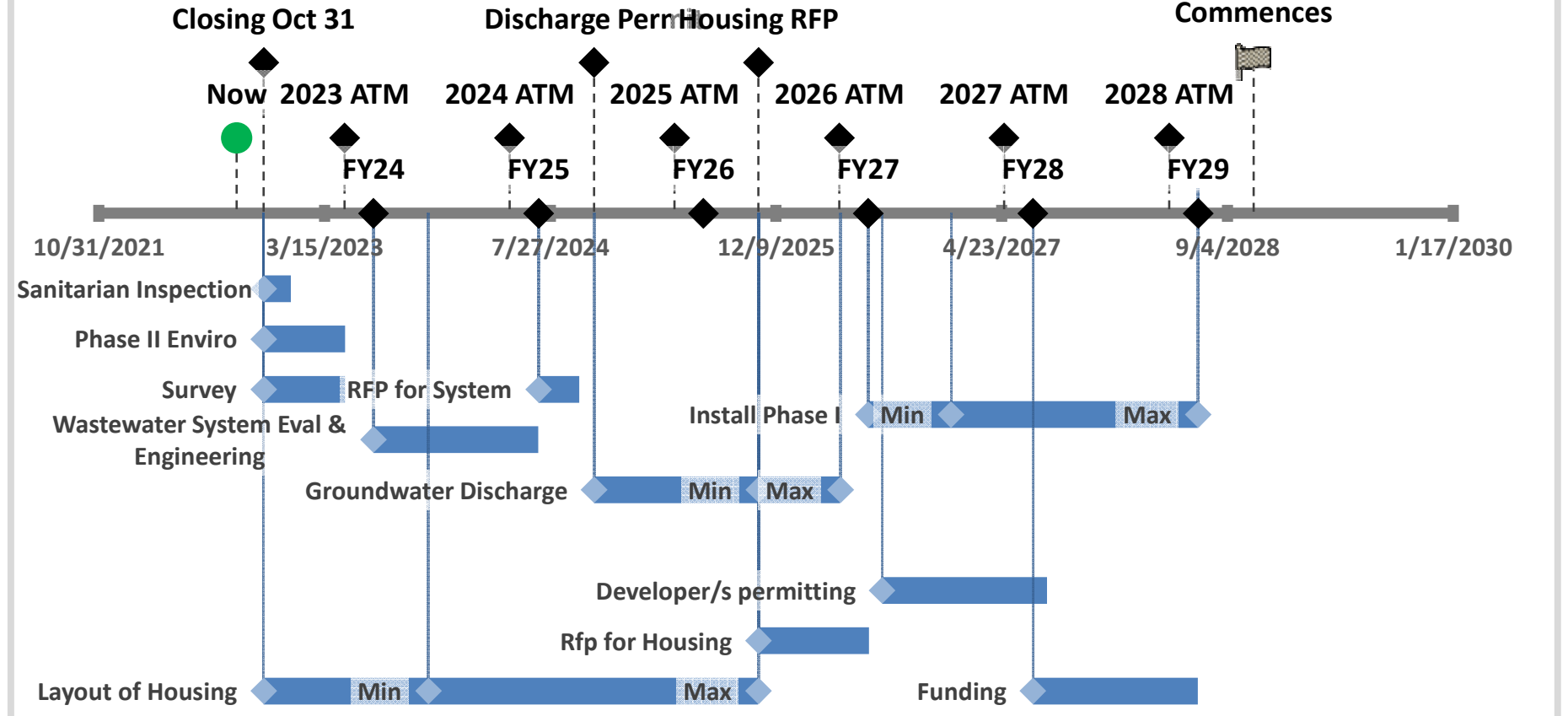
Funding sources for immediate site work, Medium to Small Project Funding- Barnstable County, ARPA County allocation to Wellfleet \$202,000, Second ARPA Direct Payment \$142,558.

Other funding sources:

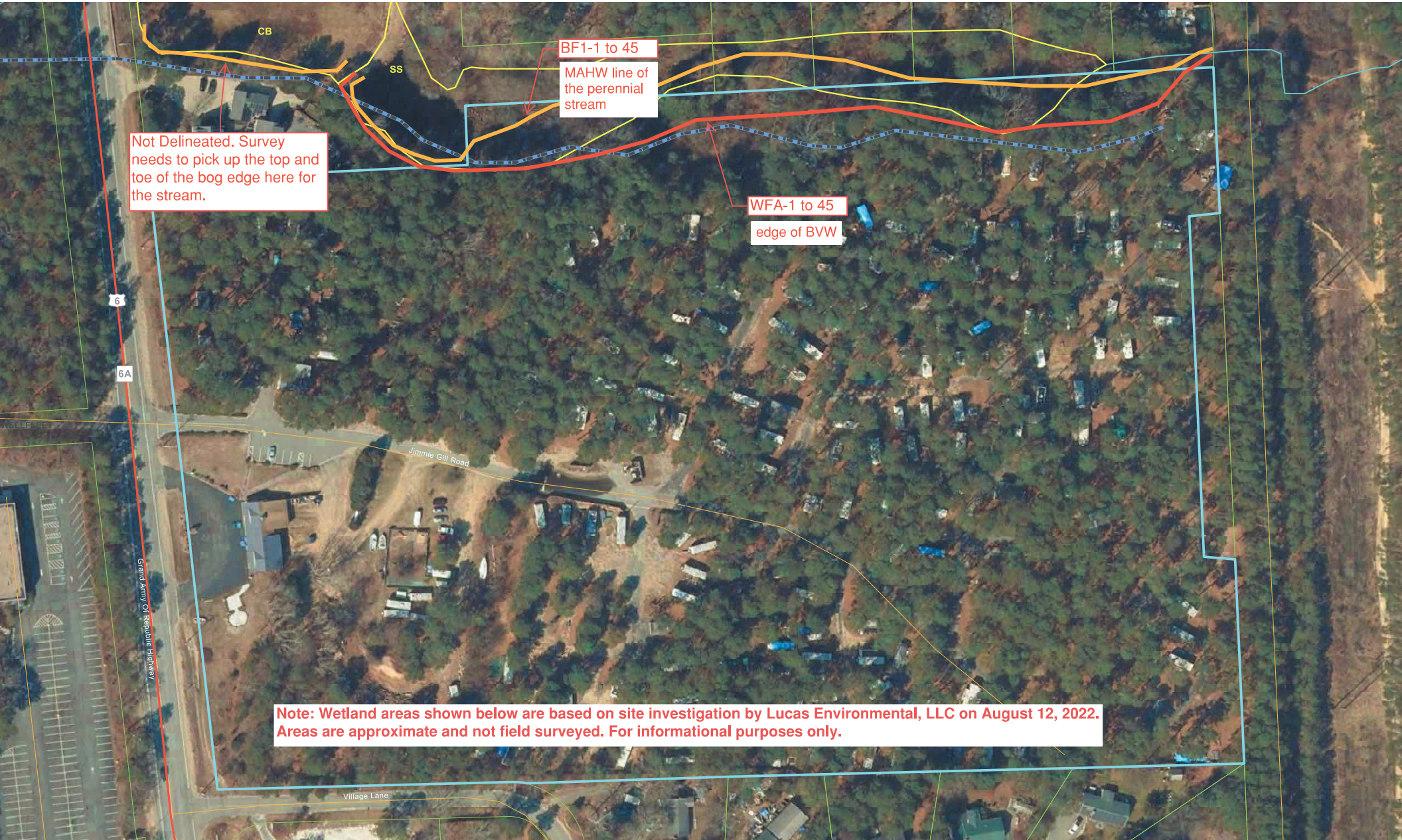
Town meeting & grants. SRF ~ Clean Water Trust

Septic Upgrade Time Line

Campground Closes and Redevelopment Commences



Wetlands Delineation ~ Bohler 8/29/22



Down-gradient Wellfleet Cinema & Drive-In

PWS ID	PWS Name	Contaminant Group	Chemical Name	Collected Date	Result	UOM	Result Qualifier	Result Description	Reporting Limit	Location ID	Location Name	Raw or Finished	Method	Maximum Contaminant Level (MCL)	Lab Reported Detection Limit	Required Detection Limit
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/18/2022	0.651	MG/L			0.0300 MG/L	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/18/2022	1.08	MG/L			0.0300 MG/L	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	12/21/2021	0.729	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	12/21/2021	0.608	MG/L			0.0300 MG/L	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/13/2021	1.74	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.1500 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/13/2021	0.175	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/06/2021	0.429	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/06/2021	0.346	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/21/2020	0.472	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/21/2020	0.329	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/17/2020	1.52	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/17/2020	0.728	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/17/2020	2.34	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-E	10	0.1500 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/27/2020	0.194	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/27/2020	0.23	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	02/12/2020	0.304	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	02/12/2020	0.177	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/22/2019	0.349	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/22/2019	0.441	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	07/16/2019	1.55	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	07/16/2019	1.54	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	07/16/2019	1.62	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/29/2019	0.34	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	04/29/2019	0.148	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/16/2019	0.171	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	01/16/2019	3.9	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	4.44	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	4.4	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	3.66	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	0.246	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	4.44	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	2.64	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	10/30/2018	4.4	MG/L			Not Recorded	10002	WELL 3A	F	SM 4500-NO3-F	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/28/2018	4.02	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/28/2018	0.689	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	SODIUM	SODIUM	08/28/2018	16	MG/L			Not Recorded	10001	WELL #2	F	EPA 200.7		0.5000 MG/L	14.0000
4318038	SPRING BROOK CENTER	NITRIT	NITRITE	08/28/2018	0.01	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318038	SPRING BROOK CENTER	NITRIT	NITRITE	08/28/2018	ND	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/28/2018	3.33	MG/L			Not Recorded	10005	WELL 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/28/2018	2.38	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	SODIUM	SODIUM	08/28/2018	64	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	EPA 200.7		0.5000 MG/L	14.0000
4318038	SPRING BROOK CENTER	SODIUM	SODIUM	08/28/2018	25	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	EPA 200.7		0.5000 MG/L	14.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	08/28/2018	1.13	MG/L			Not Recorded	10006	WELL 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRIT	NITRITE	08/28/2018	ND	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	05/14/2018	2.94	MG/L			Not Recorded	10005	WELL 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	05/14/2018	4.37	MG/L			Not Recorded	10003	WELL 1A AND 1B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	05/14/2018	0.505	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318038	SPRING BROOK CENTER	NITRAT	NITRATE	05/14/2018	2.48	MG/L			Not Recorded	10004	WELL 3A AND 3B	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000

4318038	SPRING BROOK CENTER,	SODIUM	SODIUM	09/18/2003	17	MG/L			Not Recorded	10001	WELL #2	F	EPA 200.7		1.0000 MG/L	14.0000
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	09/18/2003	ND	MG/L			Not Recorded	10001	WELL #2	F	EPA 300.0	1	0.0040 MG/L	0.0500
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/18/2003	1.19	MG/L			Not Recorded	10002	WELL 3A	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	09/18/2003	ND	MG/L			Not Recorded	10000	WELL 1A	F	EPA 300.0	1	0.0040 MG/L	0.0500
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/18/2003	1.18	MG/L			Not Recorded	10000	WELL 1A	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/24/2002	0.87	MG/L			Not Recorded	10002	WELL 3A	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/24/2002	2.21	MG/L			Not Recorded	10000	WELL 1A	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/24/2002	2	MG/L			Not Recorded	10001	WELL #2	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/19/2001	2.16	MG/L			Not Recorded	10000	WELL 1A	F	EPA 300.0	10	0.0050 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/19/2001	3	MG/L			Not Recorded	10001	WELL #2	F	EPA 300.0	10	0.0050 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/19/2001	1.6	MG/L			Not Recorded	10002	WELL 3A	F	EPA 300.0	10	0.0050 MG/L	1.0000
4318038	SPRING BROOK CENTER,	SODIUM	SODIUM	09/17/1998	20.1	MG/L			Not Recorded	10000	WELL 1A	F	EPA 200.7		0.1000 MG/L	14.0000
4318038	SPRING BROOK CENTER,	SODIUM	SODIUM	09/17/1998	20	MG/L			Not Recorded	10001	WELL #2	F	EPA 200.7		0.1000 MG/L	14.0000
4318038	SPRING BROOK CENTER,	SODIUM	SODIUM	09/17/1998	18.3	MG/L			Not Recorded	10002	WELL 3A	F	EPA 200.7		0.1000 MG/L	14.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/11/1997	1.31	MG/L			Not Recorded	10000	WELL 1A	F	SM 4500-NO3-E	10	0.0400 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/11/1997	1.37	MG/L			Not Recorded	10002	WELL 3A	F	SM 4500-NO3-E	10	0.0400 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	09/11/1997	ND	MG/L			Not Recorded	10000	WELL 1A	F	SM 4500-NO3-E	1	0.0020 MG/L	0.0500
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	09/11/1997	ND	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-E	1	0.0020 MG/L	0.0500
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	09/11/1997	ND	MG/L			Not Recorded	10002	WELL 3A	F	SM 4500-NO3-E	1	0.0020 MG/L	0.0500
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/11/1997	1.3	MG/L			Not Recorded	10001	WELL #2	F	SM 4500-NO3-E	10	0.0400 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/18/1996	1.9				Not Recorded	10000	WELL 1A	F	4500E	10	0.0100	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/18/1996	2.95				Not Recorded	10001	WELL #2	F	4500E	10	0.0100	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	07/18/1996	2.4				Not Recorded	10002	WELL 3A	F	4500E	10	0.0100	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	08/07/1995	2.05	MG/L			Not Recorded	10000	WELL 1A	F	418C	10	Not Recorded	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	05/24/1995	2.31	MG/L			Not Recorded	10002	WELL 3A	F	418C	10	Not Recorded	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	05/24/1995	4.14	MG/L			Not Recorded	10001	WELL #2	F	418C	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	08/02/1994	4.5	MG/L			Not Recorded	10001	WELL #2	F	418C	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	08/02/1994	0.003				Not Recorded	10000	WELL 1A	F	4500E	1	Not Recorded	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	08/02/1994	1.95	MG/L			Not Recorded	10000	WELL 1A	F	418C	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	08/02/1994	0.001				Not Recorded	10002	WELL 3A	F	4500E	1	Not Recorded	
4318038	SPRING BROOK CENTER,	NITRIT	NITRITE	08/02/1994	0.001				Not Recorded	10001	WELL #2	F	4500E	1	Not Recorded	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	08/02/1994	2	MG/L			Not Recorded	10002	WELL 3A	F	418C	10	0.0100 MG/L	1.0000
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/24/1993	1.49				Not Recorded	10000	WELL 1A	F	4500E	10	0.0200	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/24/1993	1.49				Not Recorded	10002	WELL 3A	F	4500E	10	0.0200	
4318038	SPRING BROOK CENTER,	NITRAT	NITRATE	09/24/1993	1.49				Not Recorded	10001	WELL #2	F	4500E	10	0.0200	

Down-gradient Massasoit Hills Trailer Park

PWS ID	PWS Name	Contaminant Group	Chemical Name	Collected Date	Result	UOM	Reporting Limit	Location ID	Location Name	Raw or Finished	Method	Maximum Contaminant Level (MCL)	Lab Reported Detection Limit	Required Detection Limit
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	05/12/2022	2	MG/L	0.0500 MG/L	10006	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/12/2021	2	MG/L	Not Recorded	10004	WELL #1 & WELL #2	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/20/2020	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0060 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/20/2020	ND	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0060 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/20/2020	2.02	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/20/2020	0.56	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/12/2019	0.054	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/12/2019	2.16	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	05/15/2018	0.6	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	05/15/2018	2.68	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/04/2017	ND	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	1	0.0060 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/04/2017	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0060 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/04/2017	2.9	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/04/2017	3.14	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/12/2016	2	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/12/2016	2.6	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/12/2016	ND	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/12/2016	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	12/28/2015	2.64	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	12/28/2015	2.63	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/03/2015	2.62	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	06/29/2015	ND	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	1	0.0040 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/29/2015	2.63	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/30/2014	2.87	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/30/2014	2.86	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2014	2.8	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	06/30/2014	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	06/30/2014	ND	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2014	2.8	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	08/29/2013	3.76	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/28/2013	3.5	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 353.2	10	0.1000 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	06/28/2013	ND	MG/L	Not Recorded	10002	REPLACEMENT WELL #1	F	EPA 353.2	1	0.0500 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	03/29/2013	3.05	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/27/2012	3.6	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/27/2012	2.7	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	10/13/2011	3.2	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/29/2011	3.5	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/06/2011	ND	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0100 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/06/2011	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0100 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/06/2011	9.2	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/06/2011	2.8	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2010	3.5	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2010	2.9	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2009	2.6	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/30/2009	2.5	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	SODIUM	SODIUM	10/23/2008	28	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 200.7		0.0500 MG/L	14.0000
4318056	MASSASOIT HILLS TRAIL	SODIUM	SODIUM	10/23/2008	30	MG/L	Not Recorded	10000	WELL #1	F	EPA 200.7		0.0500 MG/L	14.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/28/2008	ND	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	1	0.0100 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	04/28/2008	ND	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0100 MG/L	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/28/2008	3	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	EPA 300.0	10	0.0500 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	04/28/2008	2.6	MG/L	Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0500 MG/L	1.0000

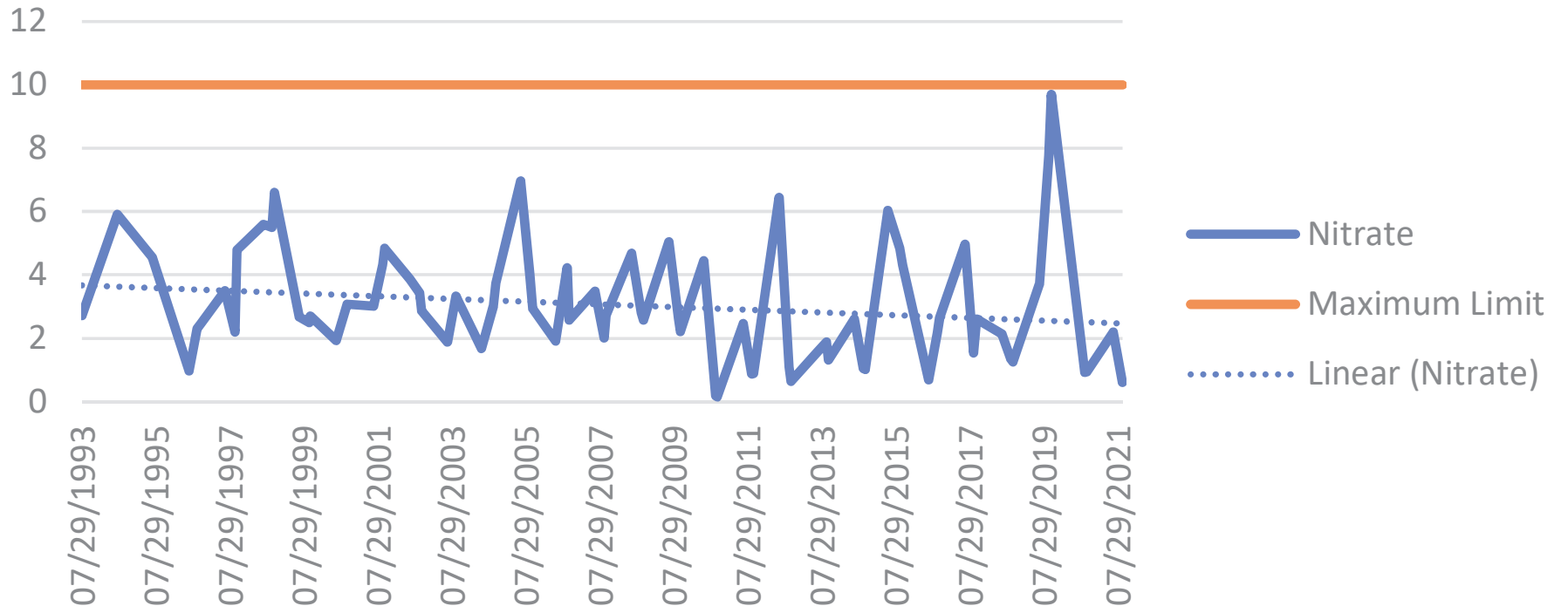
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	01/14/1995	1.89	MG/L	Not Recorded	10000	WELL #1	F	418C	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	01/14/1995	2.5	MG/L	Not Recorded	10001	WELL #2 (WELL PIT)	F	418C	10	0.0100 MG/L	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	09/28/1994	1.79	MG/L	Not Recorded	10000	WELL #1	F	418C	10	Not Recorded	1.0000
4318056	MASSASOIT HILLS TRAIL	NITRIT	NITRITE	06/28/1993	ND	MG/L	Not Recorded	10000	WELL #1	F	353.3	1	Not Recorded	0.0500
4318056	MASSASOIT HILLS TRAIL	NITRAT	NITRATE	06/28/1993	1.82		Not Recorded	10000	WELL #1	F	4500E	10	Not Recorded	

Down-gradient Wellfleet Bay Wildlife Sanctuary

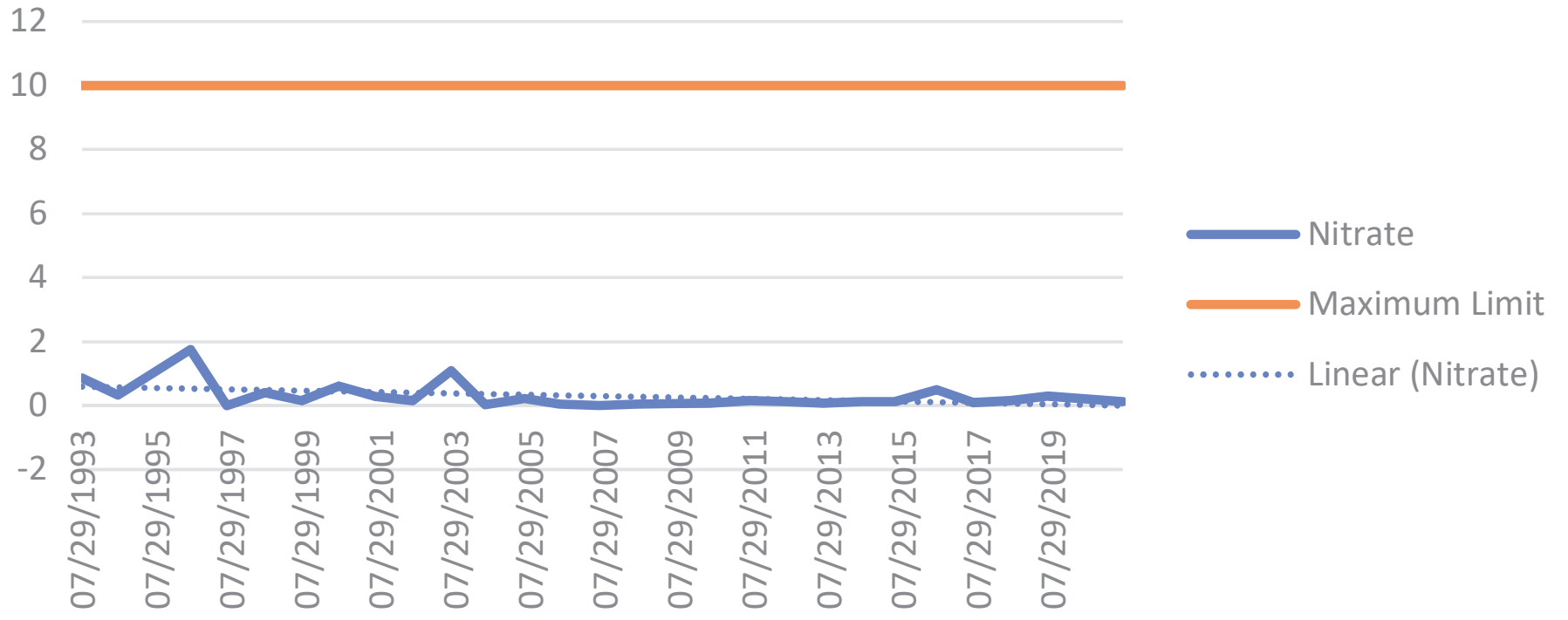
PWS ID	PWS Name	Contaminant Group	Chemical Name	Collected Date	Result	UOM	Result Qualifier	Result Description	Reporting Limit	Location ID	Location Name	Raw or Finished	Method	Maximum Contaminant Level (MCL)	Lab Reported Detection Limit	Required Detection Limit
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/25/2001	1.3	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.0050 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	12/06/2000	ND	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/16/1999	2.07	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/16/2018	1.33	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/08/2022	1.61	MG/L			0.0300 MG/L	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/07/2021	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	05/26/2010	2.56	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/12/2000	1	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	05/06/2008	0.78	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	12/05/2000	ND	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0500 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	03/31/1999	1.5	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/17/2007	0.83	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	04/22/2019	21	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		0.5000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/22/2019	0.753	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	07/30/2003	1.18	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	06/08/2022	ND	MG/L			0.0070 MG/L	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	06/08/2022	19	MG/L			2 MG/L	10001	SAMPLE TAP	F	EPA 200.7		2.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/16/2005	0.96	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	07/23/1997	1.64	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0200 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/11/2003	2.2	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/09/2012	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	04/17/2007	17	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		0.0500 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/14/2015	0.75	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	06/04/1997	ND	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	1	0.0100 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	04/13/2016	12	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		5.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	05/26/2010	14.6	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		1.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/07/2021	1.08	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/29/2004	0.83	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	10/07/1998	21	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 3111B		1.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	06/10/2009	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	05/17/2011	1.89	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	04/01/2013	14	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		1.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/01/2013	1.11	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/10/2009	0.89	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/22/2003	0.99	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	05/26/1995	ND	MG/L			Not Recorded	10000	WELL #1	F	353.3	1	0.0100 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/15/2002	1.1	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/13/2016	1.06	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/24/1998	2.8	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/14/2015	0.068	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	SODIUM	SODIUM	04/29/2004	17	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 200.7		1.0000 MG/L	14.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/23/2020	0.997	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/09/2012	1.83	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	05/29/2002	1.4	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/12/2006	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	1	0.0100 MG/L	0.0500

4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	02/18/1998	1.7	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.0200 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	07/13/2011	0.35	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/12/2006	0.9	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-F	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/16/2018	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO2-B	1	0.0070 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	06/07/2000	1.8	MG/L			Not Recorded	10000	WELL #1	F	EPA 300.0	10	0.1000 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRIT	NITRITE	04/22/2003	ND	MG/L			Not Recorded	10001	SAMPLE TAP	F	EPA 300.0	1	0.0040 MG/L	0.0500
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/13/2017	1.24	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/01/1996	0.6	MG/L			Not Recorded	10000	WELL #1	F	353.3	10	0.0100 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	04/07/2014	1.82	MG/L			Not Recorded	10001	SAMPLE TAP	F	SM 4500-NO3-E	10	0.0300 MG/L	1.0000
4318049	WELLFLEET BAY WILDLIF	NITRAT	NITRATE	05/26/1995	0.64	MG/L			Not Recorded	10000	WELL #1	F	353.3	10	Not Recorded	1.0000

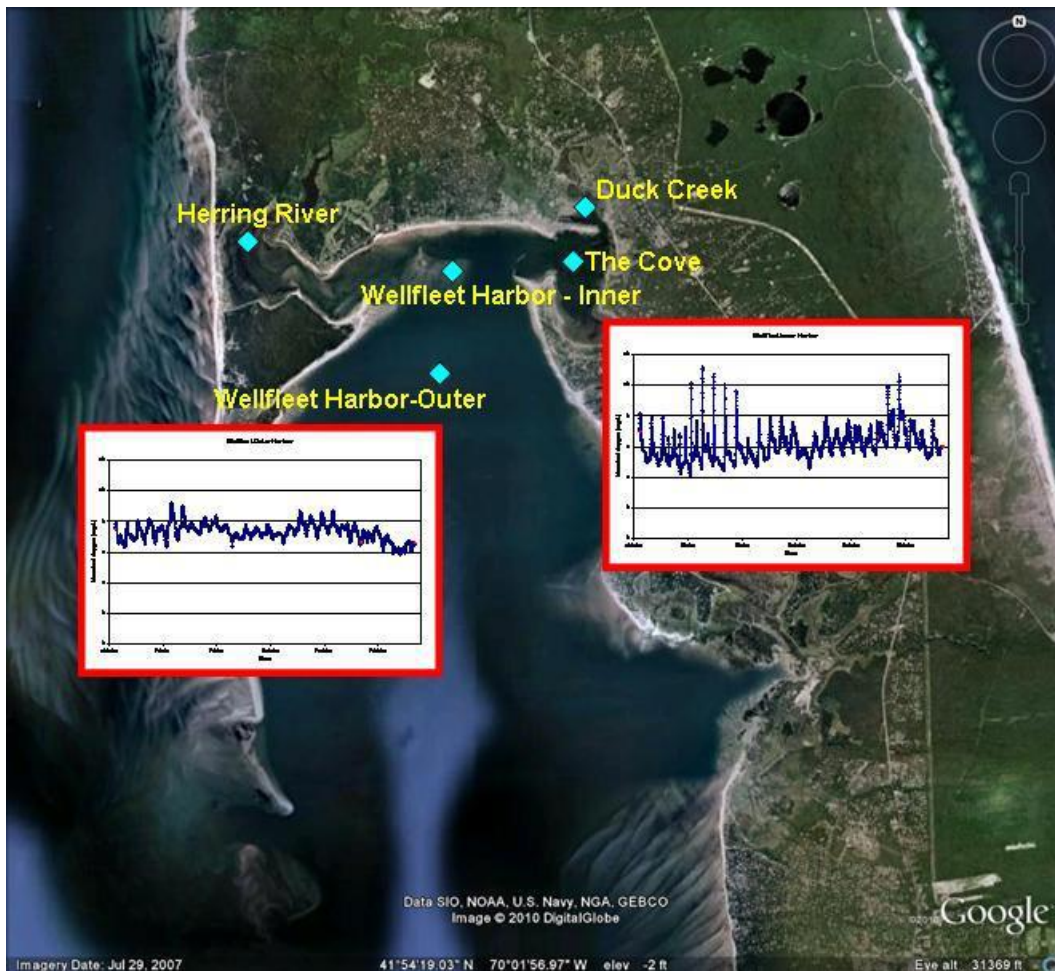
Maurice's Campground Nitrate (Well 1)



Marurice's Campground Nitrate (Well 2)



**Draft Wellfleet Harbor Embayment System
Town of Wellfleet, Massachusetts
Total Maximum Daily Load
For Total Nitrogen
(CN # 447.0)**



**COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
BETHANY A. CARD, SECRETARY
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
MARTIN SUUBERG, COMMISSIONER
BUREAU OF WATER RESOURCES
KATHLEEN BASKIN, ASSISTANT COMMISSIONER
WATERSHED PLANNING PROGRAM
June 2022**

Table 6 includes the present and target threshold watershed N loadings to Wellfleet Harbor and the percentage reduction necessary to meet the target threshold N concentration at the sentinel station (from Table ES-2 of the MEP Technical Report, Howes *et. al*, 2017).

It should be emphasized that this is only one scenario that will meet the target N concentration enough to restore habitat throughout the system which is the goal of the TMDL. There can be variations depending on the chosen sub-watershed and which controllable source is selected for reduction. Alternate scenarios will result in different amounts of nitrogen being reduced in different sub-watersheds. For example, taking out additional nitrogen upstream will impact how much nitrogen must be taken out downstream. The town of Wellfleet should take any reasonable effort to reduce the controllable nitrogen sources.

As previously indicated, the present N loadings to Wellfleet Harbor must be reduced in order to restore conditions and to avoid further nutrient-related adverse environmental impacts. The critical final step in the development of the TMDL is modeling and analysis to determine the loadings required to achieve the target threshold N concentrations.

Table 6: Present Watershed Nitrogen Loading Rates, Calculated Loading Rates that are Necessary to Achieve Target Threshold Nitrogen Concentrations and the Percent Reductions of the Existing Loads Necessary to Achieve the Target Threshold Loadings

System Component	Present Attenuated Watershed Load ¹ (kg/day)	Target Threshold Watershed Load ² (kg/day)	Percent watershed reductions needed to achieve target threshold loads
Herring River/The Gut	27.72	27.13	-2.1%
Duck Creek	5.40	1.80	-66.7%
The Cove	9.82	3.04	-69.0%
Drummer/Blackfish	7.36	3.59	-51.2%
Hatches Creek	9.46	9.46	+0.0%
Wellfleet Harbor	17.53	8.64	-50.7%
Loagy Bay	2.45	1.19	-51.2%
Wellfleet Harbor (total system)	79.74	54.85	-31.4%

¹ Composed of wastewater from septic systems, fertilizer, landfill, wastewater treatment facilities, agriculture, runoff from impervious surfaces, atmospheric deposition to freshwater waterbodies and natural surfaces. This load does not include direct atmospheric deposition onto estuarine surfaces or benthic regeneration.

² Target Threshold Watershed Load is the load from the watershed needed to meet the embayment target threshold N concentration of 0.53 mg/L identified in Table 4 above.



TOWN OF WELLFLEET

300 MAIN STREET WELLFLEET MASSACHUSETTS 02667

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Request for Variance or Exemption from Wellfleet Board of Health (BOH) regulation 603 and related provisions of the state sanitary code.

Wellfleet BOH regulations, section 603 provides, in part, that:

- Unless inspected previously within two years under the terms of this regulation, the on-site sewage disposal system shall be inspected by a licensed inspector approved by the Board of Health whenever a property containing such a system is transferred by sale, exchange, gift or bequest to a new ownership, or placed into or taken out of a form of trust ownership. A copy of the report of such inspection is to be furnished to the Health Department by the prospective new owner prior to the closing, and where an upgrade is required, an agreement specifying the timeframe shall be signed.
- Under these local regulations a cesspool system serving any property shall be defined as “failed” and must be upgraded to meet Title 5 standards within 6 months of property transfers of any device, and within two years of the issuance of a building permit, or any self-identification associated with a septic inspection.
- The upgrade must take place within 30 days of property transfer.

The Wellfleet Selectboard, as the purchaser to the premises located at 80 State Highway, Wellfleet, commonly known as “Maurice’s Campground,” hereby requests variances and/or exemptions from Wellfleet BOH and related state sanitary code provisions sufficient to allow the continued operation of the improvements presently on the premises, consisting of a single family dwelling, cottages, a retail store, trailer and tent campsites, and related facilities on the premises for a **period ending on October 31, 2028.**

BOH’s authority for granting the requested waivers and/or exemptions is found in Wellfleet BOH regulations, section 201 which provides:

The Board of Health will make determinations in accordance with these and other regulations, but reserves the right in special circumstances, as determined in its judgment, to be more restrictive, to issue variances, or to grant exemptions. The rationale for such departures shall be documented in written minutes of the Board of Health meeting in question.

In support of this request, the Selectboard relies on the existing condition, the hardship that would be incurred, our objectives with this purchase, and the justification provided with this application.

Sincerely

Ryan Curley

(Selectboard Chair)

Variance Rationale

The Wellfleet Selectboard offer the following rationale for approval of the request for a variance from the Board of Health regulations to allow continued operation of the cesspools and associated septic works at Maurice's Campground, until October 31, 2028. A decision from the Board of Health will further inform voters at the upcoming Special Town Meeting in September and does have a material financial impact.

Under section 201:

201 The Board of Health will make determinations in accordance with these and other regulations, but reserves the right **in special circumstances**, as determined in its judgment, to be more restrictive **to issue variances, or to grant exemptions**. The rationale for such departures shall be documented in written minutes of the Board of Health meeting in question.

Special Circumstances

The complexity of purchasing a long-standing Campground with an intention of converting a private seasonal camping use to a public, year-round, affordable housing project, using taxpayer funding, is clearly a special circumstance. It is also a unique opportunity to add desperately needed affordable housing units in the Outer Cape. In fact, an affordable housing assessment by the Cape Cod Commission singled out this location as "highly desirable" for that purpose.

For the purposes of appreciating the time frame requested, the 95 Lawrence Road development is a local example. After the Town decided to move forward with an affordable housing development in 2018, it took approximately 3 years to prepare and award the bid for the project. Construction is not expected to be complete until 2026 or essentially 8 years from inception to completion. It is not at all unusual for public affordable housing developments to take even 4-6 years under best case scenarios.

Therefore, both the nature of the request due to the "special circumstances" and the timeframe requested are reasonable for a project of this nature and this timeframe is consistent with the Town's experience in developing a similar project.

Under the terms of the purchase and sale agreement with the Gauthier's, the facility would be operated "as is" until October 21, 2028. This means that the current use is not expected to change during the time of developing an affordable housing solution and that period of time should be sufficient to develop and execute a preferred solution.

No Evidence of Septic Impact on Drinking Water or the Environment

The current cesspools and septic facilities on the property are maintained with annual pump-out at the end of the season (see Appendix A Site Map). With regards to concerns about the cesspools and drinking water on the property, since 1990, the DEP required, public water supply testing shows no degradation over 20 years of monthly testing in season. (see appendices B&C). If anything, there has been a slight improvement in both wells as indicated by the trend lines. Well 1 shows an average nitrate level of 3.04 mg/l. There were two outlier maximum values in 2019 of 7.7 mg/l and 9.7 mg/l but the levels returned to below 2 mg/l in 2020 and 2021.

The minimum value for the entire time period was 0.15 mg/l and a similar reading of 0.61 mg/l was just recently recorded in September 2021. Well 2 showed lower levels of nitrates with a maximum value of 1.75 mg/l, minimum of non-detect, an average of 0.3 mg/l and below 1 mg/l since 2003.

These readings are well below any public health thresholds for nitrates and indicative of the cesspools and septic facilities likely having little to no impact on the wells.

No Change of Use

Based on the current operation, granting a variance would not appear to adversely impact public health or the environment given this well documented history. During the interim period the Town does not plan to change, in any way, the current operation. So, it would seem reasonable to expect little to no change in the impact. Moreover, continued operation while a housing plan is being developed will help defray some of the costs to taxpayers, another “special circumstance”, that would provide significant benefit to the Town and help reduce the cost of adding affordable housing.

Planned Upgrade to “Best Available Technology”/Regional Development of Affordable Housing

Assuming the voters approve the purchase, and after completing the public process of an affordable housing development, the location of water and septic connections will most likely not resemble what is there today. Moreover, at the time of construction, it is expected that property use will be changing from seasonal to year-round. It will comprise wholly different structures, locations and density meaning any investment now, in the existing infrastructure, would have little to no benefit in the future.

Massachusetts Department of Environmental Protection (DEP) is in the process of promulgating new Title 5 regulations that are anticipated to require “best available technology”. DEP expects these regulations to be adopted early next year, so they will most likely be in place by 2028. However, since public hearings will only begin in January of next year, this is currently an unknown for the project.

For the 95 Lawrence Road project, a consultant study was undertaken by Bosiller Engineering, with a grant from the Cape Cod Commission, to determine the best alternative in the watershed. The result was a treatment system coupled with neighboring parcels that will ultimately reduce nitrogen in the watershed. It also looks like the public works associated with the project will be awarded a MassWorks Grant. We would anticipate undertaking a similar process with Maurice’s Campground. Once a thoroughly vetted housing plan is finalized, the appropriate best available technology can be selected with a goal of overall reductions in the watershed. In other words, housing development that actually reduces watershed impacts. This outcome is more likely with a municipal project than with a private developer and further supports the request for a variance.

During the interim period, should a water quality problem develop, while continuing to follow DEP public water supply testing requirements, the Town of Eastham has offered to serve the location, a new well could be drilled or supply shifted to the other well. While the data do not

support the likelihood of a problem, these alternatives provide significant insurance for protecting public health in the event of something unforeseen.

Due to the overriding public interest in affordable housing, lack of data supporting a public health concern and extraordinarily special circumstances, we would hope you would consider granting the variance for the time period requested.

For Reference Only

Wellfleet Beaches
 Marconi Beach

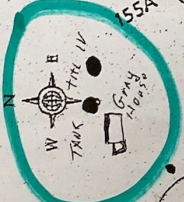
Eastham
 Nauset Light Beach

Access to the Bicycle Trail

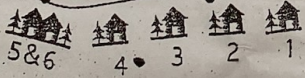
Bicycle Trail



25¢ = 6min



Title V
 Permit # 112



4318065 #1 well



Propane

Maurice's Market open 7:30am-10pm
 508-349-9245

parking

Parking- Extra Cars- Boats
 Sticker Must Be Displayed

- Children's Playground
- Horse Shoe Pits
- Basketball Hoop

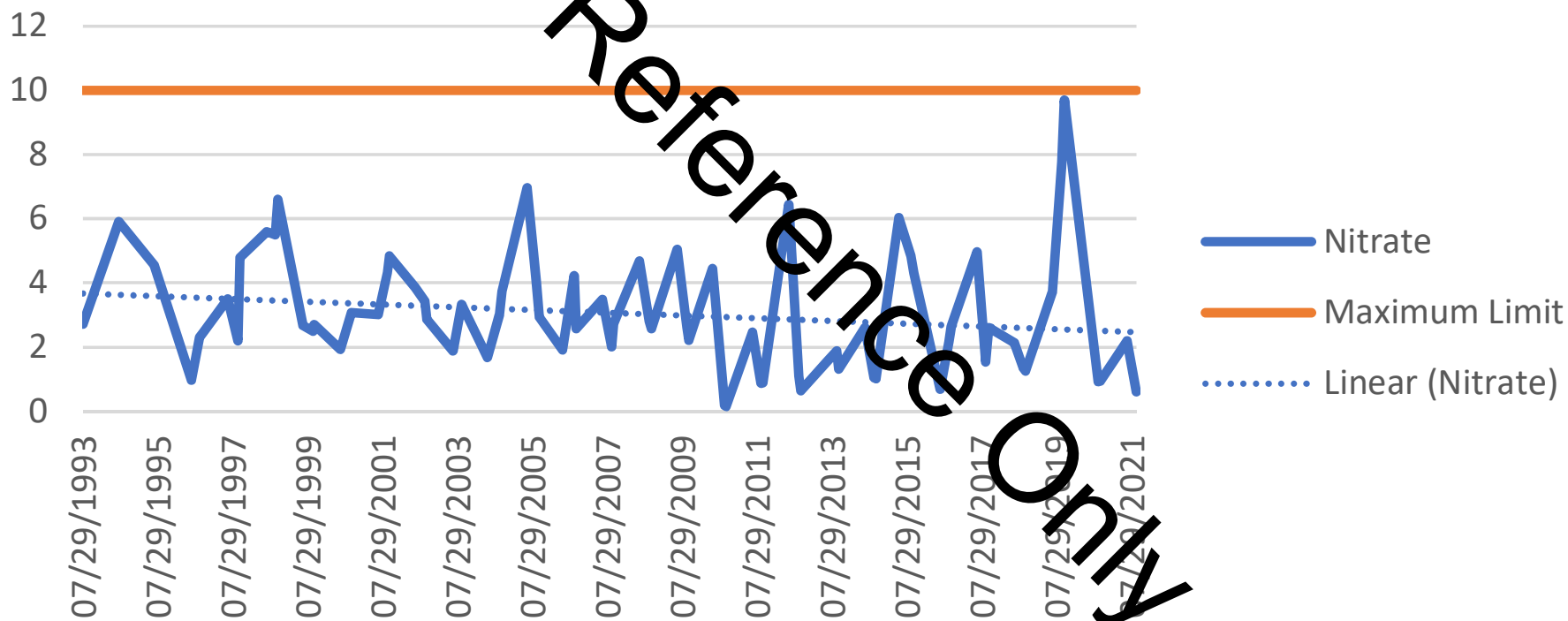
	TENT SITE NO HOOK UP
	ELECTRIC & WATER
	NO ELECTRIC, WATER, SEWAGE, AND CABLE
	WATER FAUCET
	WIRELESS ANTENNA

Septic TANKS
 with cesspools
 cesspools

ROUTE 6

For Reference Only

Maurice's Campground Nitrate (Well 1)



For Reference Only

Marurice's Campground Nitrate (Well 2)

