

2024 TRWA Sampling Results for Nitrate (mg/l)			TARGET FOR CONCERN - GREATER THAN 0.4 MG/L								
Sample	Site No.	River & Location Description	April	May	June	July	August	Sept.	Oct.	AVG**	
1	TNT-01	Taunton R. Br, Center St., Berkley	0.26	0.34	0.44	0.56	0.62	0.80	0.40	0.53	
2	TNT-02	Taunton R. Br, Plain St., Taunton	0.23	0.32	0.44	0.58	0.56	0.66	0.47	0.50	
3	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	0.20	0.32	0.42	0.59	0.55	1.22	0.35	0.57	
4	CHE-01/TNT-04	Taunton R. Br, Cherry St., Bridgewater	0.30	0.64	0.80	1.32	1.04	1.99	0.79	1.10	
5	ASO-01	Assonet R. Bridge, Rt 79	0.07	0.06	0.10	0.08	0.05	0.08	0.09	0.08	
6	SEG	Segregansett R. Br, Brook St. Dighton	0.21	0.24	0.36	0.33	0.15	0.32	0.23	0.27	
7	BER-01	Chuckamucksett Brk. Br, Berkley St.	0.60	0.90	1.00	1.21	1.14	1.24	0.85	1.06	
8	TMR-01	Three Mile R. Br, Rt 138, Somerset Ave.	0.28	0.30	0.45	0.48	0.33	0.75	0.35	0.44	
9	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	0.28	0.30	0.44	0.49	0.33	1.29	0.32	0.53	
10	TMR-03	Three Mile R. Br, Crane St., Norton	0.26	0.23	0.31	0.23	0.12	0.19	0.21	0.22	
11	MIL-01	Mill R., Ingell St., Taunton	0.21	0.08	0.19	0.27	0.14	0.41	0.17	0.21	
12	MIL-02	Mill R., Washington St., Taunton	0.20	0.11	0.17	0.25	0.12	0.36	0.15	0.19	
13	MIL-03	Mill R., Whittendon St., Taunton	0.18	0.12	0.13	0.17	0.06	0.22	0.12	0.14	
14	FORGE	Forge R. Br, Rt 44, Raynham	0.21	0.26	0.26	0.21	0.19	0.22	0.25	0.23	
15	COT-01	Cotley R., Middleboro Ave, Taunton	0.13	0.13	0.25	0.43	0.30	0.27	0.17	0.26	
16	FBR-01	Furnace Brk., River St., Raynham	0.15	0.21	0.14	0.20	0.14	0.14	0.17	0.17	
17	CHU-01	Taunton River Br, Church St., Raynham	0.22	0.33	0.52	0.59	0.43	1.06	0.47	0.57	
18	TWH-01	Town R., Br, Hayward St., Bridgewater	0.10	0.27	0.37	1.48	0.78	NR	0.27	0.64	
19	MAT-01	Matfield R., Br, High St., Bridgewater	0.48	0.79	0.90	1.66	0.85	1.66	0.79	1.11	
20	NEM-01	Nemasket R., Murdock St., Middleboro	0.12	0.08	0.11	0.11	0.21	0.33	0.12	0.16	
Month	Site No.	Duplicate and Blank Locations by Month	DUP #	Duplicate Results	BL #	Blank Results	** Avg is for the water quality months				
April	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	0.13	BL 1	0.137	of May through October used in				
	BER-01	Chuckamucksett Brk. Br, Berkley St.	DUP 2	0.59	BL 2	<0.05	NPDES permit TN limitation averaging.				
May	FBR-01	Furnace Brk., River St., Raynham	DUP 1	0.33	BL 1	<0.05					
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	0.30	BL 2	<0.05	NR = Not Reported, no sample,				
June	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	0.43	BL 1	<0.05	invalid result				
	ASO-01	Assonet R. Bridge, Rt 79	DUP 2	0.11	BL 2	<0.05					
July	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	DUP 1	0.59	BL 1	<0.05					
	SEG	Segregansett R. Br, Brook St. Dighton	DUP 2	0.32	BL 2	<0.05					
August	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	0.56	BL 1	<0.05					
	MAT-01	Matfield R., Br, High St., Bridgewater	DUP 2	0.84	BL 2	<0.05					
Sept.	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	0.26	BL 1	<0.05					
	MIL-01	Mill R., Ingell St., Taunton	DUP 2	0.35	BL 2	NR					
Oct.	NEM-01	Nemasket R., Murdock St., Middleboro	DUP 1	0.12	BL 1	0.12					
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	0.32	BL 2	0.08					

2024 TRWA Sampling Results for Total Phosphorus (mg/l)			TARGET FOR CONCERN - GREATER THAN 0.100 mg/l							AVG**
Sample	Site No.	River & Location Description	April	May	June	July	August	Sept.	Oct.	AVG**
1	TNT-01	Taunton R. Br, Center St., Berkley	0.030	0.063	0.102	0.174	0.088	0.119	0.078	0.104
2	TNT-02	Taunton R. Br, Plain St., Taunton	0.030	0.047	0.077	0.077	0.069	0.050	0.134	0.075
3	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	0.037	0.046	0.078	0.072	0.075	0.046	0.074	0.065
4	CHE-01/TNT-04	Taunton R. Br, Cherry St., Bridgewater	0.044	0.069	0.103	0.093	0.108	0.083	0.086	0.090
5	ASO-01	Assonet R. Bridge, Rt 79	0.013	0.036	0.049	0.086	0.097	0.051	0.054	0.062
6	SEG	Segregansett R. Br, Brook St. Dighton	0.014	0.030	0.060	0.099	0.054	0.054	0.051	0.058
7	BER-01	Chuckamucksett Brk. Br, Berkley St.	0.027	0.019	0.024	0.028	0.033	0.031	0.026	0.027
8	TMR-01	Three Mile R. Br, Rt 138, Somerset Ave.	0.016	0.029	0.049	0.048	0.047	0.022	0.036	0.038
9	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	0.019	0.029	0.048	0.051	0.046	0.023	0.038	0.039
10	TMR-03	Three Mile R. Br, Crane St., Norton	0.015	0.026	0.029	0.037	0.045	0.026	0.028	0.032
11	MIL-01	Mill R., Ingell St., Taunton	0.030	0.019	0.040	0.058	0.045	0.034	0.035	0.039
12	MIL-02	Mill R., Washington St., Taunton	0.019	0.024	0.034	0.036	0.039	0.033	0.030	0.033
13	MIL-03	Mill R., Whittendon St., Taunton	0.016	0.029	0.034	0.028	0.044	0.024	0.033	0.032
14	FORGE	Forge R. Br, Rt 44, Raynham	0.031	0.074	0.120	0.150	0.094	0.046	0.097	0.097
15	COT-01	Cotley R., Middleboro Ave, Taunton	0.011	0.020	0.027	0.031	0.030	0.016	0.019	0.024
16	FBR-01	Furnace Brk., River St., Raynham	0.016	0.036	0.057	0.075	0.081	0.056	0.026	0.055
17	CHU-01	Taunton River Br, Church St., Raynham	0.027	0.047	0.080	0.076	0.075	0.048	0.068	0.066
18	TWH-01	Town R., Br, Hayward St., Bridgewater	0.027	0.062	0.136	0.149	0.166	0.247	0.096	0.143
19	MAT-01	Matfield R., Br, High St., Bridgewater	0.034	0.067	0.071	0.077	0.099	0.060	0.058	0.072
20	NEM-01	Nemasket R., Murdock St., Middleboro	0.016	0.033	0.044	0.040	0.041	0.024	0.037	0.037
		Duplicate and Blank Locations by Month		Duplicate Results		Blank Results		** Avg is for the water quality months of May through October (season AVG).		
April	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	0.011		BL 1		<0.0106		
	BER-01	Chuckamucksett Brk. Br, Berkley St.	DUP 2	0.015		BL 2		<0.0106		
May	FBR-01	Furnace Brk., River St., Raynham	DUP 1	0.045		BL 1		<0.0106		
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	0.027		BL 2		<0.0106		
June	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	0.083		BL 1		<0.0106		
	ASO-01	Assonet R. Bridge, Rt 79	DUP 2	0.054		BL 2		<0.0106		
July	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	DUP 1	0.074		BL 1		<0.0106		
	SEG	Segregansett R. Br, Brook St. Dighton	DUP 2	0.066		BL 2		<0.0106		
August	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	0.069		BL 1		<0.0106		
	MAT-01	Matfield R., Br, High St., Bridgewater	DUP 2	0.099		BL 2		<0.0106		
Sept.	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	0.015		BL 1		<0.0106		
	MIL-01	Mill R., Ingell St., Taunton	DUP 2	0.023		BL 2		NR		
Oct.	NEM-01	Nemasket R., Murdock St., Middleboro	DUP 1	0.037		BL 1		<0.0106		
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	0.033		BL 2		<0.0106		

2024 TRWA Sampling Results for Enterococci (CFU/100 ml)			TARGET FOR CONCERN - GREATER THAN 35 CFU/100 ML (Class B & SB waters)							
Sample	Site No.	River & Location Description	April	May	June	July	August	Sept.	Oct.	90 Day Geo Mean June to Aug
1	TNT-01	Taunton R. Br, Center St., Berkley (SB Cr. 104)	40	20	40	80	40	10	25	50
2	TNT-02	Taunton R. Br, Plain St., Taunton (SB Cr. 104)	10	60	10	80	130	10	25	47
3	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	20	10	30	10	30	10	50	21
4	CHE-01/TNT-04	Taunton R. Br, Cherry St., Bridgewater	50	20	50	50	50	30	25	50
5	ASO-01	Assonet R. Bridge, Rt 79	10	20	80	120	20	20	200	58
6	SEG	Segregansett R. Br, Brook St. Dighton	10	10	100	130	140	30	150	122
7	BER-01	Chuckamucksett Brk. Br, Berkley St.	10	40	310	310	140	50	100	238
8	TMR-01	Three Mile R. Br, Rt 138, Somerset Ave.	10	20	70	50	100	120	50	70
9	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	10	10	50	300	20	40	200	67
10	TMR-03	Three Mile R. Br, Crane St., Norton	10	20	80	90	120	30	50	95
11	MIL-01	Mill R., Ingell St., Taunton	10	120	140	430	1180	40	50	414
12	MIL-02	Mill R., Washington St., Taunton	10	10	70	360	200	60	50	171
13	MIL-03	Mill R., Whittendon St., Taunton	10	70	20	160	200	60	50	86
14	FORGE	Forge R. Br, Rt 44, Raynham	20	110	110	670	140	30	200	218
15	COT-01	Cotley R., Middleboro Ave, Taunton	10	200	420	240	140	50	50	242
16	FBR-01	Furnace Brk., River St., Raynham	20	10	30	20	70	10	250	35
17	CHU-01	Taunton River Br, Church St., Raynham	20	10	10	670	80	180	100	81
18	TWH-01	Town R., Br, Hayward St., Bridgewater	10	50	50	220	150	10	50	118
19	MAT-01	Matfield R., Br, High St., Bridgewater	120	40	60	50	50	30	50	53
20	NEM-01	Nemasket R., Murdock St., Middleboro	10	10	50	60	80	10	50	62
		Duplicate and Blank Locations by Month		Duplicate Results		Blank Results		** Geometric Mean for any 90 days		
April	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	10	BL 1	<10	shall not exceed 35 CFU/100ml.			
	BER-01	Chuckamucksett Brk. Br, Berkley St.	DUP 2	10	BL 2	<10	No more than 10% of all samples			
May	FBR-01	Furnace Brk., River St., Raynham	DUP 1	10	BL 1	<10	collected shall exceed 130 CFU/100ml.			
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	10	BL 2	<10	Standard effective 11/12/2021.			
June	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	50	BL 1	<10				
	ASO-01	Assonet R. Bridge, Rt 79	DUP 2	80	BL 2	<10	Results reported as 2000 were			
July	BED-01/TNT-03	Taunton R., Rt 18, Bedford St., Bridgewater	DUP 1	40	BL 1	<10	reported as > 2000 colonies by			
	SEG	Segregansett R. Br, Brook St. Dighton	DUP 2	70	BL 2	<10	Microbac Lab (max that could be			
August	TNT-02	Taunton R. Br, Plain St., Taunton	DUP 1	90	BL 1	<10	measured). 2000 used to calculate			
	MAT-01	Matfield R., Br, High St., Bridgewater	DUP 2	50	BL 2	<10	the geometric mean.			
Sept.	COT-01	Cotley R., Middleboro Ave, Taunton	DUP 1	30	BL 1	<10				
	MIL-01	Mill R., Ingell St., Taunton	DUP 2	30	BL 2	NR				
Oct.	NEM-01	Nemasket R., Murdock St., Middleboro	DUP 1	<50	BL 1	<1				
	TMR-02	Three Mile R. Br, Rt 44, Cohannet St.	DUP 2	50	BL 2	<1				

Sample Analysis, Collection Method - Standard Operating Procedures (SOP) and Instream Target Values									
Samples Are Analyzed by:									
Microbac, Dayville, CT					A MassDEP Certified Laboratory				
https://www.microbac.com/our-laboratories/dayville-connecticut/#services									
Samples Are Collected by Trained TRWA Volunteers Using An SOP Jointly Developed by TRWA and Veolia North America see TRWA Website:									
https://savethetaunton.org/water-quality-monitoring/									
Sampling Locations Map May Be Found At:									
https://www.google.com/maps/d/edit?mid=zhnldTn8bGeU.kyo7mjqZ3YFQ&usp=sharing									
Water Quality Protection Instream Target Values:									
Nitrate									
Water Quality Target Values for Nitrogen are expressed as <u>Total</u> Nitrogen = Nitrate + Organic Nitrogen + Ammonia + Nitrite									
Like most environmental groups TRWA measures only Nitrate because of its low cost (\$12 / sample) and low reporting level (0.05 mg/l). The MassDEP in a large number of TMDLs for estuaries has recommended <u>TN</u> values between 0.39 to 0.5 mg/l for estuaries <u>without eel grass</u> in good to fair condition. The Cape Cod Commission recommends values 0.34 to 0.39 while the Buzzards Bay Project/ Massachusetts Coastal Zone Management recommends 0.39 to 0.44 mg/l. After consultation with MassDEP and Rhode Island DEM (downstream state) EPA selected a TN target estuary value of 0.45 mg/l as a medium target for the Taunton River.									
Because Nitrate is <u>only a portion of Total Nitrogen</u> we consider Nitrate values > 0.4 mg/l high for both the tidal portion of the estuary below Route 24 at the Raynham/Taunton Bridge and above because of transport concerns to the salt waters of the estuary.									
Total Phosphorus									
The Water Quality Target Values for Total Phosphorus are 0.100 mg/l for freshwaters in free flowing streams and 0.050 mg/l in lakes, ponds, impoundments and streams tributary to them. These Targets are from the EPA Suggested Criteria for Water sometimes called the Gold Book.									
Based on obseration and photos of the shallow effluent dominated freshwaters of the watershed TRWA considers average TP greater than 0.05 mg/l a value for concern in addition to single month samples > 0.100 mg/l.									
Bacteria - Enterococci									
The Water Quality Target Value used for enterococci is 35 colony-forming units (CFU) per 100 ml as a geometric mean for any 90 day or smaller interval and no more than 10% of all samples collected within that interval shall exceed the statistical threshold value of 130 CFU/100ml. (Standard effective 11/12/2021).									
These targets are from the MA Water Quality Standards 314 CMR for Class B and SB waters.									