

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:									
http://savethetaunton.org/wp/wp-content/uploads/2016/04/TRWA-Sampling-SOP-1-30-2017.pdf									
Sampling Locations Map May Be Found At:									
https://www.google.com/maps/d/edit?mid=zhnldTn8bGeU.kyo7mqZ3YFQ&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.									
Feca Coliform									
The Water Quality Target Value used for Fecal Coliform is 400 colonies/100 ml (the former MA Water Quality Standard).									
Fecal Coliform is an indicator of potential presence of disease causing organisms present in a waterbody.									