

Barnegat Bay Tributary Monitoring

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Joint Technical Meeting on Barnegat Bay

New Jersey Water Monitoring Council and Barnegat Bay
Partnership

Ocean County College

February 6th, 2013



Barnegat Bay Tributary Sampling

Monitoring Sites – Located Above Head of Tide

- 13 Sites – 2011
- 12 Sites – 2012
- 7 Sites – 2013

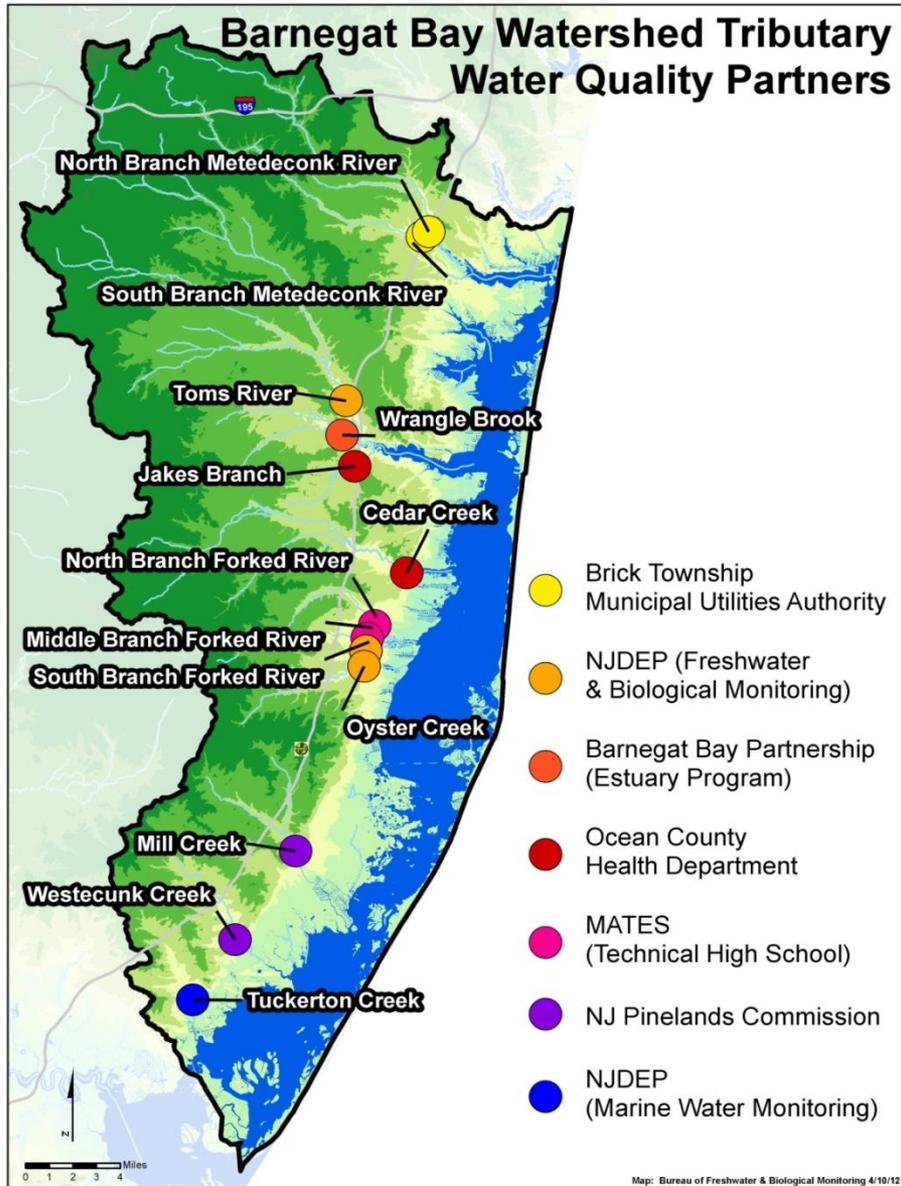
Sampling Regime

- Phase 1: (2X per month June – Oct., 1X per month Nov. & Dec., 2011, 2X per month Jan. – Mar., 2012)
- Phase 2 (4X per month Apr. – Sept., 2X per month Oct. – Dec., 2012)
- 2012 (2 Intensive events; 1 in July, 1 in Aug) Each site sampled 2X per day twice a week. Continuous monitors deployed for 4 days during each event.
- Phase 3 (2X per month Jan. – Mar., 4X per month Apr. – June, 2013)

Through December of 2012, each tributary (except BT13) has been sampled 53 times (including intensive sampling events)



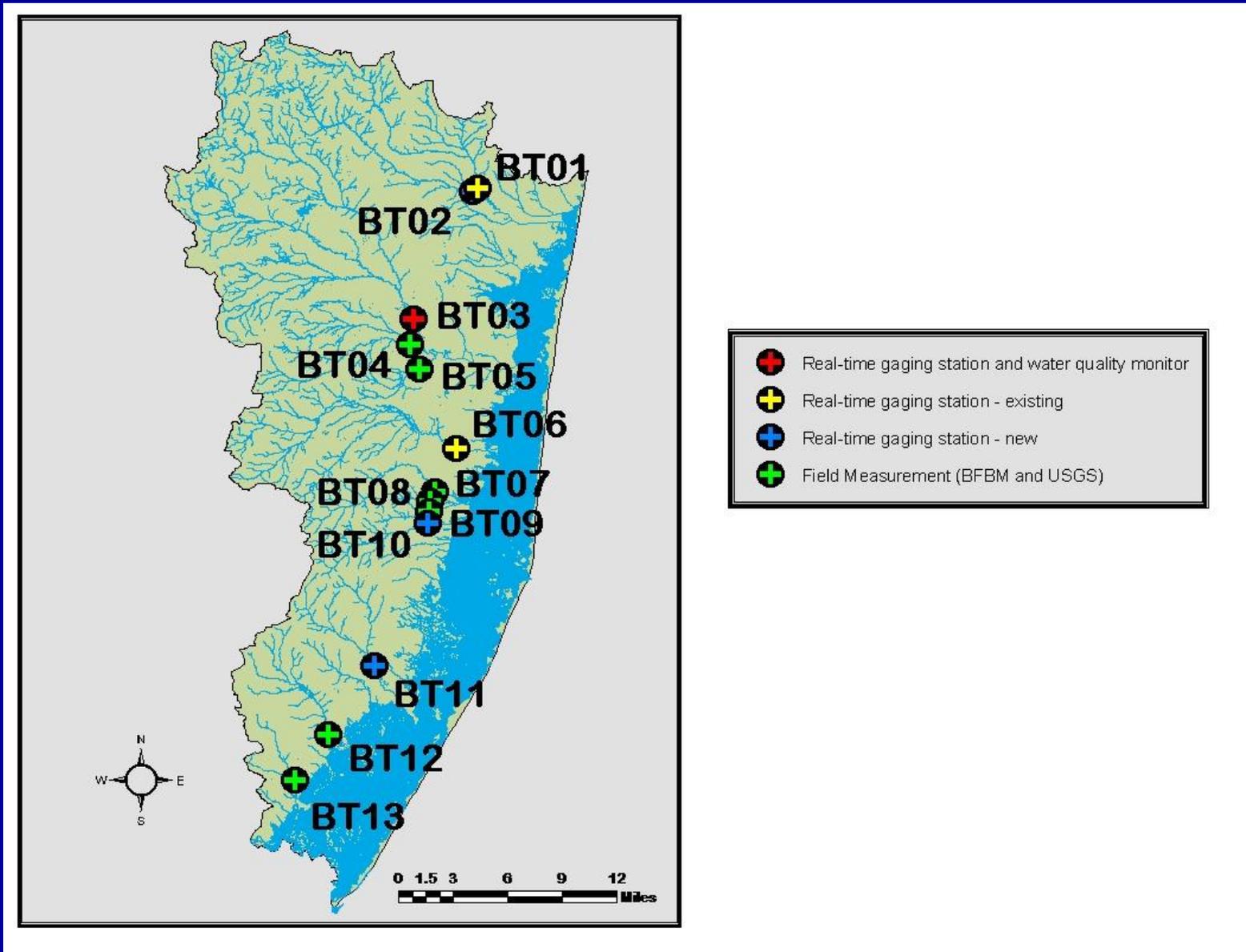
Barnegat Bay Tributary Stations



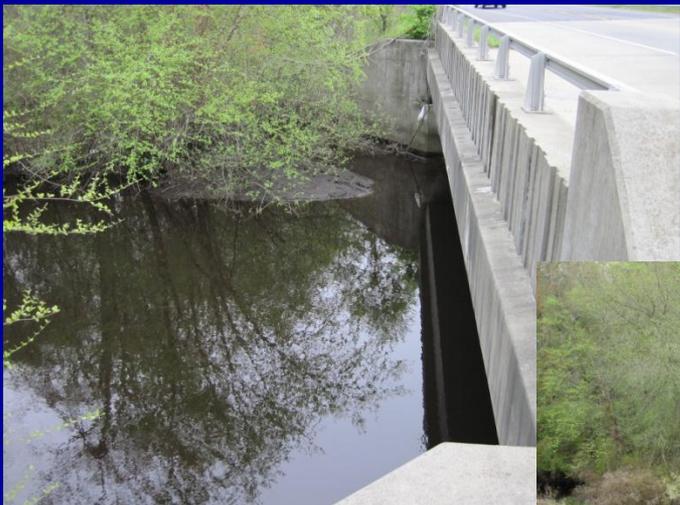
Station Number	Water Body
BT01	North Branch Metedeconk River
BT02	South Branch Metedeconk River
BT03	Toms River
BT04	Wrangle Brook
BT05	Jakes Branch
BT06a	Cedar Creek
BT07	North Branch Forked River
BT08	Middle Branch Forked River
BT09	South Branch Forked River
BT10	Oyster Creek
BT11	Mill Creek
BT12	Westecunk Creek
BT13	Tuckerton Creek



Barnegat Bay Tributary Flow Measurements



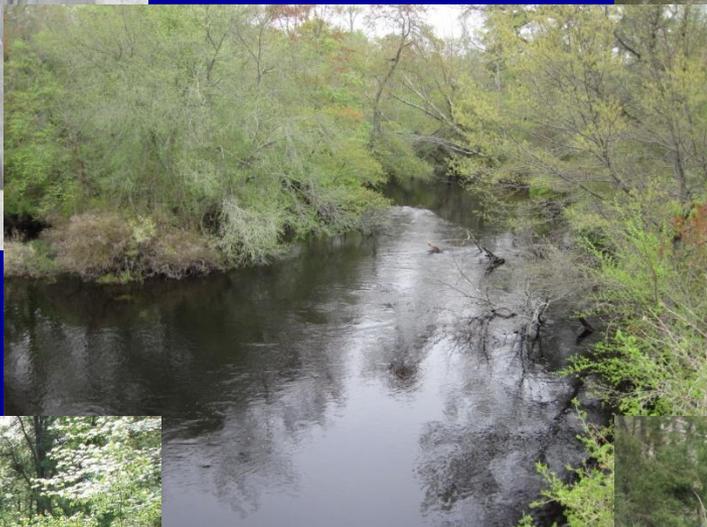
BT01 N Br Metedeconk R
Sample: Brick Twp MUA
Flow: USGS gage



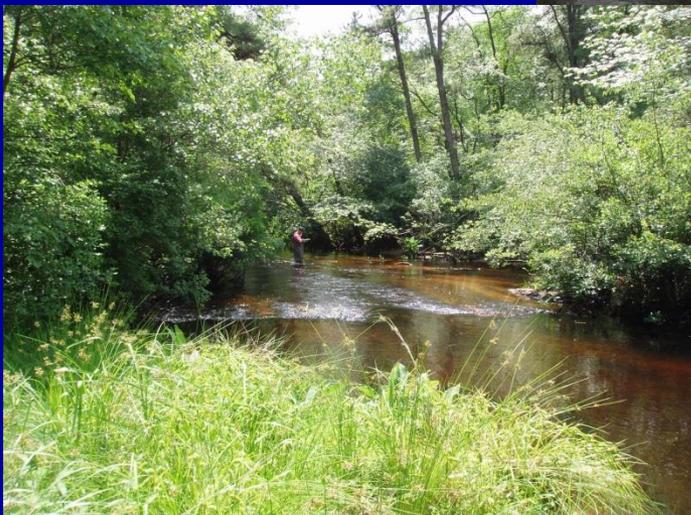
BT02 S Br Metedeconk R
Sample: Brick Twp MUA
Flow: USGS gage



BT03 Toms River
Sample: BFBM
Flow: USGS gage



BT04 Wrangle Brook
Sample: Barnegat Bay Part.
Flow: BFBM



BT05 Jakes Branch
Sample: Ocean Cty. Health Dept.
Flow: BFBM



BT06/06a Cedar Creek
Sample: Ocean Cty Health Dept.
Flow: USGS gage



BT08 Mid Br Forked River
Sample: MATES
Flow: BFBM



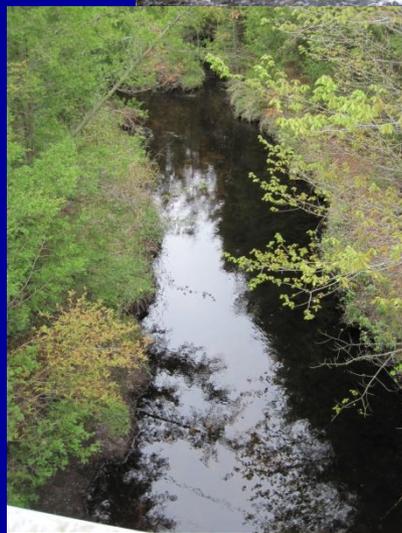
BT07 N Br Forked River
Sample: MATES
Flow: BFBM



BT10 Oyster Creek
Sample: BFBM
Flow: BFBM/USGS



BT09 S Br Forked River
Sample: BFBM
Flow: BFBM



BT11 Mill Creek
Sample: Pinelands Comm./BMWM
Flow: USGS gage



BT12 Westecunk Creek
Sample: Pinelands Comm./BMWM
Flow: USGS



BT13 Tuckerton Creek
Sample: BMWM
Flow: USGS
Discontinued Oct., 2011



Barnegat Bay Tributary Parameters

Parameter	Laboratory or Field Analysis
Dissolved Oxygen	Partners
Dissolved Oxygen % Saturation	Partners
Specific Conductance	Partners
pH	Partners
Water Temperature	Partners
Turbidity	BFBM and BMWM
Ammonia (Dissolved)	BMWM
Nitrogen (Total and Dissolved)	BMWM
Phosphorus (Total and Dissolved)	BMWM
Alkalinity	USEPA and BMWM
BOD (Biological Oxygen Demand)	OCUA and NJDOH
Carbon (Total and Dissolved Organic (TOC/DOC)	USEPA and BMWM
Silica (Total and Dissolved)	USEPA and NJDOH
Chlorophyll a	BMWM
Total Suspended Solids (TSS)	BMWM
Discharge (Flow)	USGS real-time gage, BFBM and USGS
Macroinvertebrates (Sampled One Time Only)	BFBM (No samples at BT03, BT07 and BT13)



Sample Collection



Flow Measurement



Sample Receiving at FREC



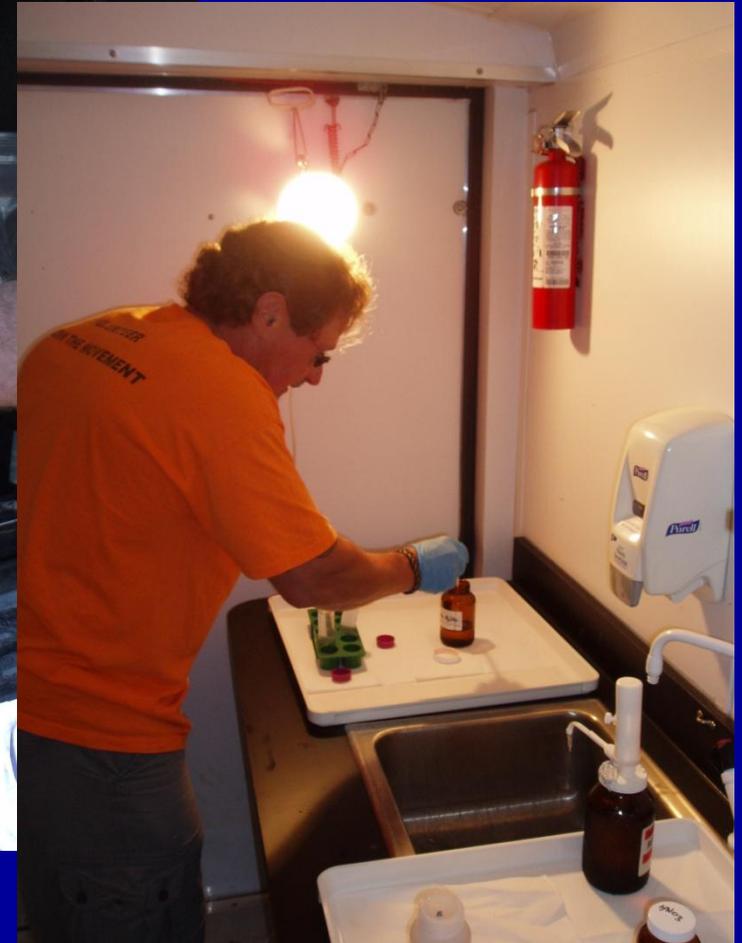
Sample Processing at FREC



Sample Processing



Sample Filtration and Preservation



Preparation of Samples for Delivery



Sample Delivery

