

2007 Nitrate + nitrite nitrogen Data - South Shore, including Salt Pond Coalition Sites

In most estuaries nitrogen (N) is the primary nutrient controlling or limiting algal growth. Ammonium-nitrogen is the preferred form of N for algae and plant growth. It can adhere to soils and sediment, but when dissolved oxygen (DO) is available, bacteria quickly oxidize ammonium-N to nitrate + nitrite N through a process known as nitrification. Nitrate+nitrite N is readily used by algae and plants, and excessive concentrations can result in algal blooms. Because nitrate+nitrite N is so easily used by algae, most estuarine sites monitored by URI Watershed Watch have low or no detectable levels of nitrate-nitrogen. Higher levels in marine waters suggest either algal productivity being limited by other conditions (temperature, lack of light or phosphorus, etc.) or excessive nitrogen inputs. Nitrate+nitrite N levels above 1000 ppb indicate human impact of some sort; from home or agricultural

Monitoring Locations

2007 Data

	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	MEAN
Salt Pond Coalition Sites	-- (ug/l or ppb) --						
Green Hill - In Pond 0.5 m	140	30	30	20	ND	20	43
Green Hill - In Pond 1.5 m	100	40	ND	20	ND	20	35
Green Hill - Indigo Pt	290	40	70	20	30	30	80
Green Hill - Sea Lea	120	ND	ND	20	20	ND	34
Green Hill - Teal Rd	340	60	20	60	80	90	108
Little Maschaug Pond	ND	-	ND	ND	ND	ND	ND
Ninigret Pond - Crawford Dock	ND	ND	ND	20	ND	ND	ND
Ninigret Pond - Stumpy Pt 0.5 m	110	40	20	20	30	ND	39
Ninigret Pond - Stumpy Pt 1.5 m	ND	20	ND	30	ND	ND	ND
Ninigret Pond - Vigna's Dock	60	40	140	125	40	30	73
Ninigret Pond - Western Basin 0.5 m	ND	40	ND	20	ND	ND	ND
Ninigret Pond - Western Basin 1.5 m	ND	-	ND	30	60	ND	ND
Pt Judith Pond - Champlin's Cove	-	ND	40	30	20	ND	ND
Pt Judith Pond - Gardiner Island 0.5 m	-	ND	30	20	30	ND	ND
Pt Judith Pond - Gardiner Island 1.5 m	-	ND	30	20	ND	ND	ND
Pt Judith Pond - Ram Point 0.5 m	330	80	460	250	290	20	238
Pt Judith Pond - Ram Point 1.5 m	-	30	460	240	300	20	210
Quonnie Pond - Harmonic Cove Channel 0.5 m	ND	ND	30	30	ND	20	ND
Quonnie Pond - Harmonic Cove Channel 1.5 m	ND	ND	30	20	20	ND	ND
Quonnie Pond - Harmonic Cove	ND	ND	30	40	ND	20	ND
Quonnie Pond - Harmonic Cove Buoy 0.5 m	ND	ND	30	30	ND	20	ND
Quonnie Pond - Harmonic Cove Buoy 1.5 m	ND	ND	30	40	ND	20	ND
Quonnie Pond - Judge's Rock 0.5 m	ND	ND	30	20	ND	30	ND
Quonnie Pond - Judge's Rock 1.5 m	ND	ND	30	20	20	20	ND
Quonnie Pond - Mud Cove	ND	ND	30	20	ND	30	ND
Quonnie Pond - N. of Bill's Is. 0.5 m	ND	ND	30	20	20	ND	ND
Quonnie Pond - N. of Bill's Is. 1.5 m	ND	ND	30	30	20	ND	ND
Quonnie Pond - Shady Harbor Brk	ND	ND	30	20	ND	ND	ND
Quonnie Pond - Yacht Basin	ND	ND	30	30	20	ND	ND
Saugatucket River - Caleb's Dock	-	580	740	730	610	960	724
Winnapaug Pond - Aquaculture	-	-	30	30	20	ND	ND
Winnapaug Pond - Breachway	40	110	30	30	20	40	45
Winnapaug Pond - Golf Course Cove	420	40	40	120	180	60	143
Winnapaug Pond - SWest Corner	-	-	30	20	ND	30	ND
Watch Hill Conservancy Sites	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	MEAN
Napatree Point - Bayside	-	-	30	30	40	20	30
Napatree Point - Oceanside	-	-	30	40	30	20	30