

Great Swamp Watershed Association

Chemical Assessment Program

Laura Kelm

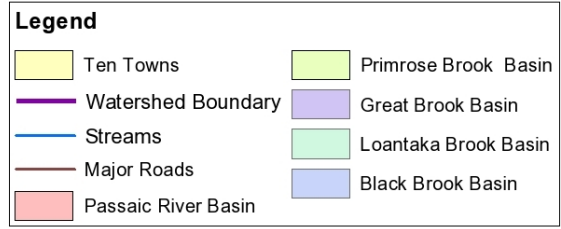
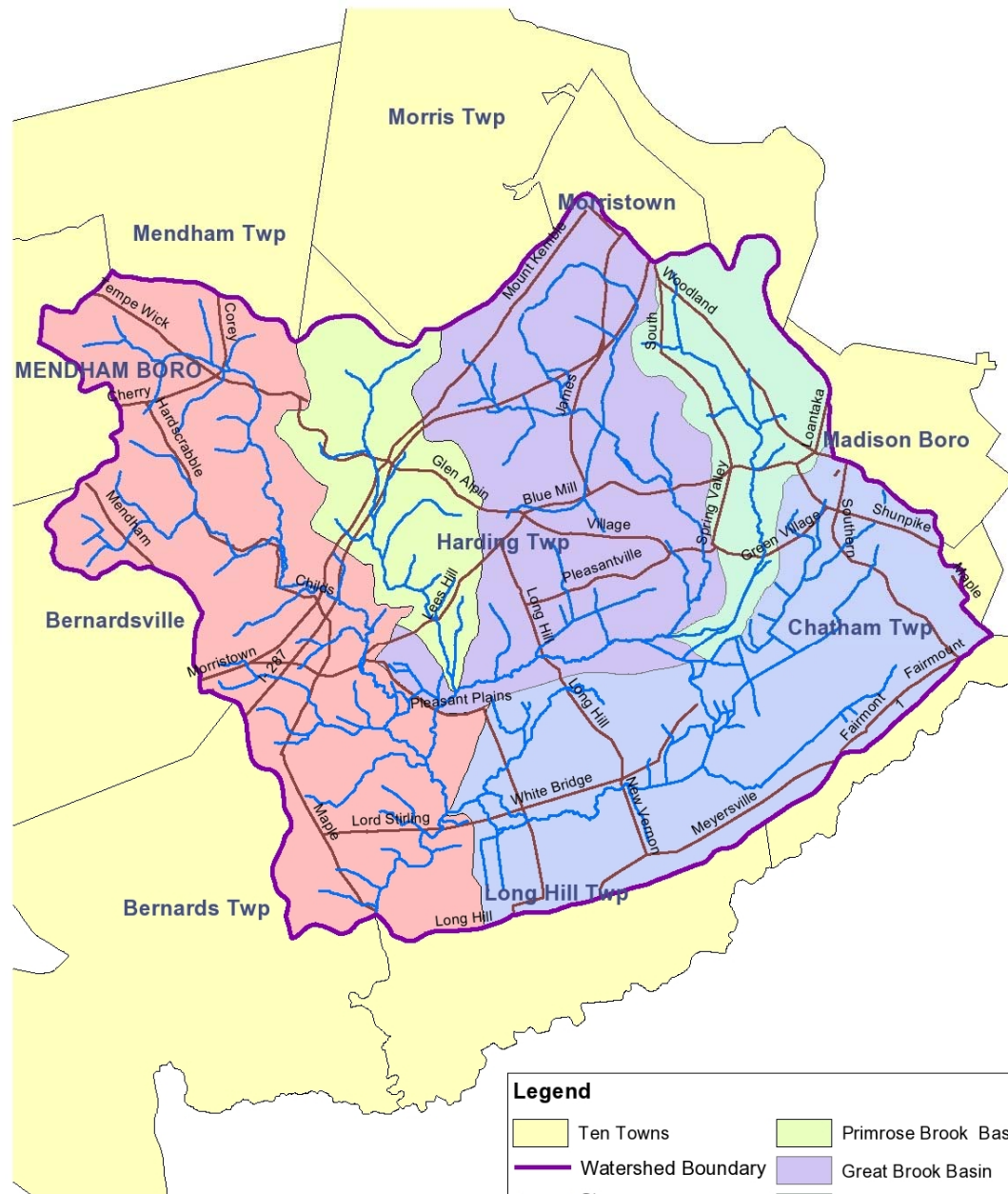
GSWA Director of Water Quality Programs

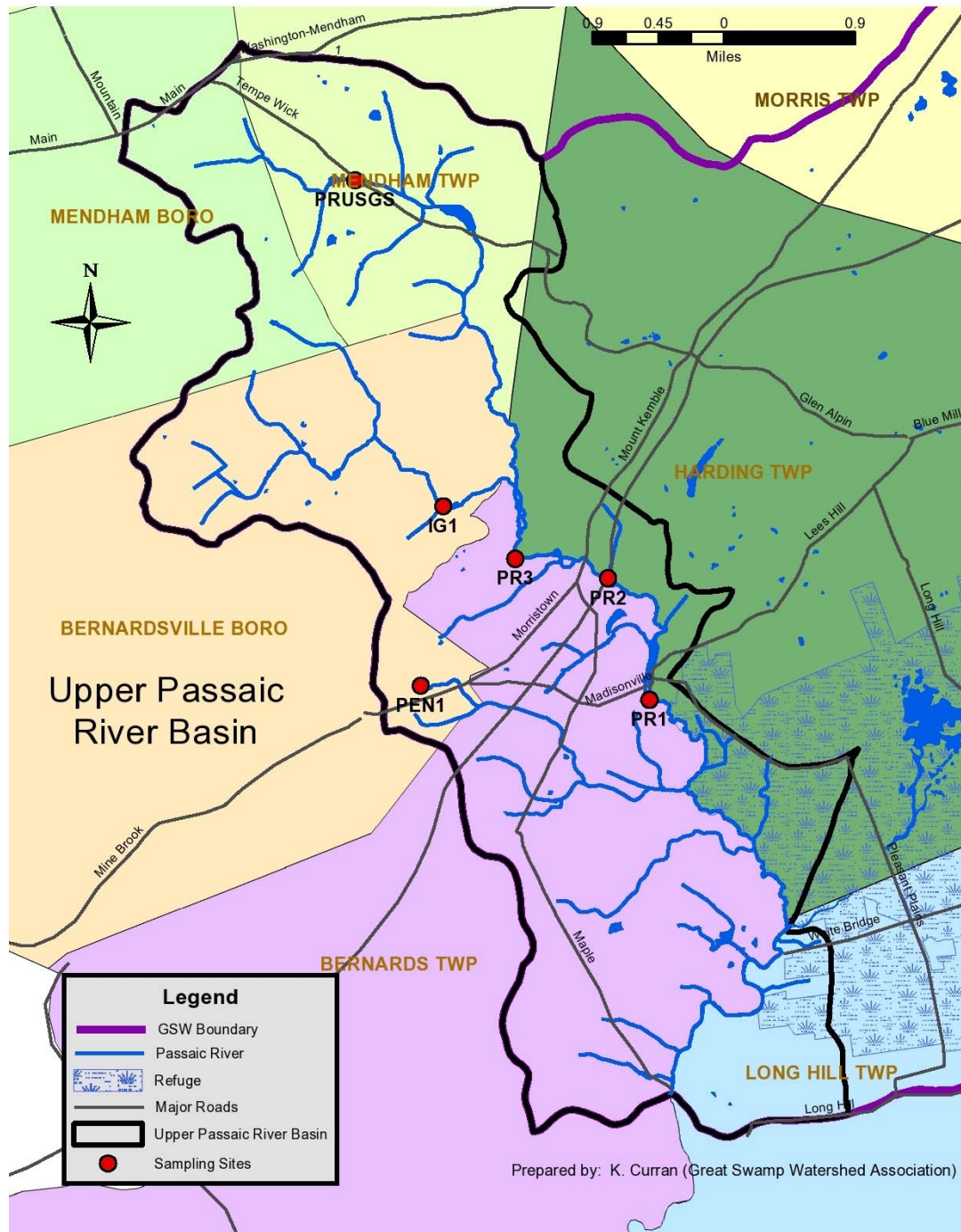


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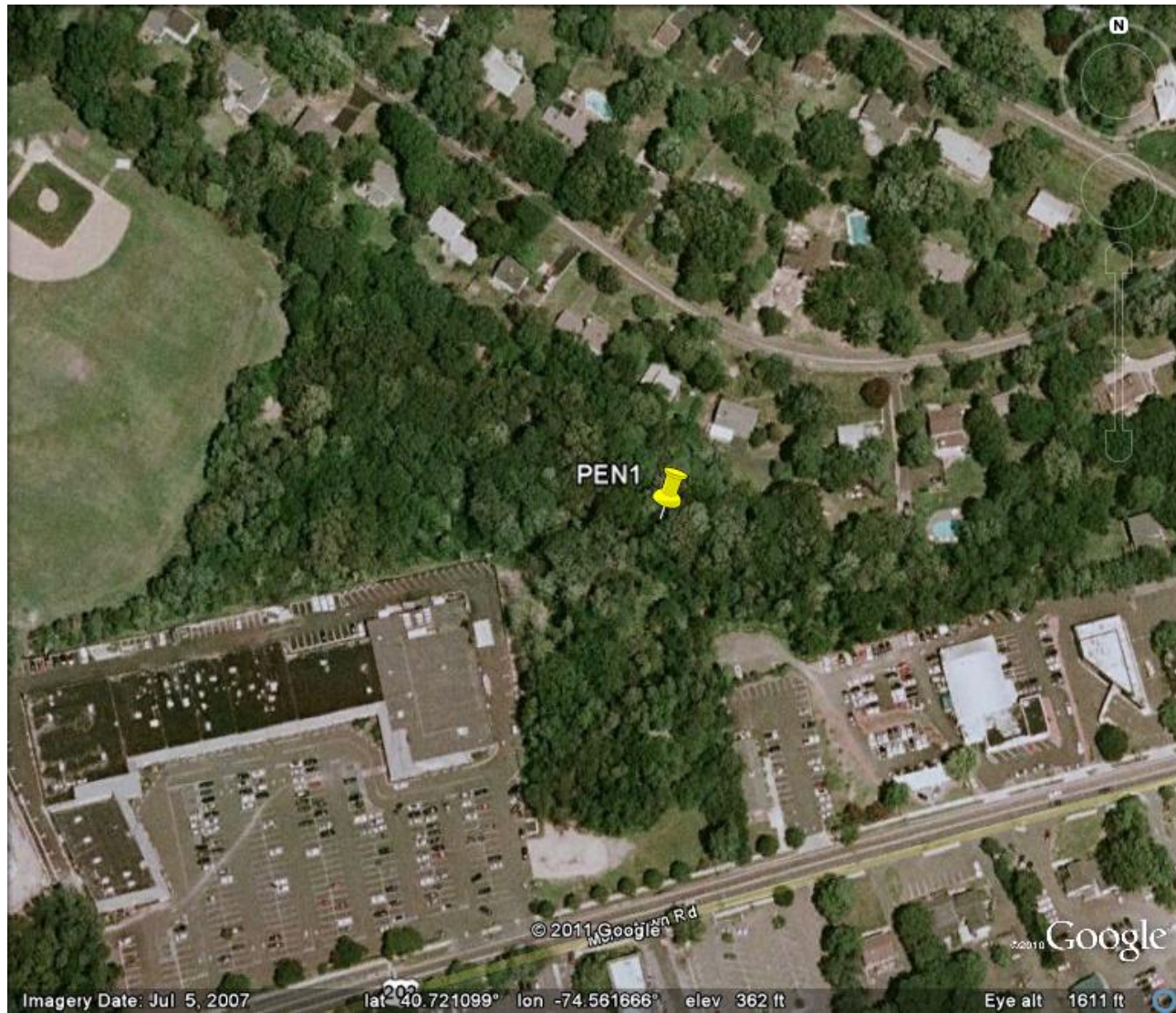
NJ Water Monitoring
Summit





Prepared by: K. Curran (Great Swamp Watershed Association)

PEN1 (Penn's Brook)



PEN1 (Penn's Brook)



Upstream

Downstream



PEN1 (Penn's Brook)



Upstream Culvert

Erosion



PR1 (Passaic River)



Upstream

Downstream



PR2A (Passaic River)



Upstream

Downstream



PR3 (Passaic River)



Upstream

Downstream



IG1 (Indian Grave Brook)



Upstream

Downstream



PR4 (Passaic River)



Upstream

Downstream



Sampling

- Soluble Reactive Phosphate
- Total Phosphorus
- Total Kjeldahl Nitrogen
- Nitrate
- Nitrite
- Total Suspended Solids
- Total Dissolved Solids
- Sodium
- Chloride
- pH
- Temperature
- Dissolved Oxygen
- Turbidity
- Conductivity
- Total Dissolved Solids



Results

Sampling Site	Sampling Date	TDS (meter) mg/l	TDS (lab) mg/l	Major TDS Components		Na ⁺ + Cl ⁻ Percent of TDS
				Sodium	Chloride	
PR4	02/15/11		349	73.2	141	61.4%
	05/11/11	231	241	22.3	60.7	34.4%
	08/04/11	271	284	20.2	68.7	31.3%
	11/14/11	295				
IG1	02/15/11		206	36.1	70.2	51.6%
	05/11/11	145	146	16.2	37.5	36.8%
	08/04/11	182	191	15.9	47.1	33.0%
	11/14/11	189				
PR3	02/15/11		240	40.0	80.8	50.3%
	05/11/11	142	153	15.3	36.6	33.9%
	08/04/11	168	169	14.3	40.8	32.6%
	11/14/11	180				
PR2A	02/15/11		246	42.7	86.5	52.5%
	05/11/11	149	167	16.3	38.4	32.8%
	08/04/11	172	190	14.6	40.8	29.2%
	11/14/11	190				
PR1	02/15/11		458	117	202	69.7%
	05/11/11	162	172	20.3	43.7	37.2%
	08/04/11	191	188	17.7	48.6	35.3%
	11/14/11	210				
PEN1	02/15/11		789	217	370	74.4%
	05/11/11	452	497	82.1	156.0	47.9%
	08/04/11	516	528	80.9	188	50.9%
	11/14/11	579				

Next Steps

- Winter Roads Maintenance Workshop
- Brine trial at GSWA
- Continue 3-year study
- Further data analysis including visual and biological data



Thank You!

- The Watershed Institute
- Roger Edwards
- GSWA Stream Team Volunteers

Laura Kelm
Director of Water Quality Programs
Great Swamp Watershed Association
568 Tempe Wick Rd.
Morristown, NJ 07960
lkelm@greatswamp.org
973-538-3500, ext. 16

