

## **APPENDIX 1**

### Marshland Mapping and Plant Species List

*[Note: GPS mapping of the East River tidal marshes is an approximate representation of where major plant communities (based on Metzler and Barrett, 2006) exist, based on aerial photo interpretation (CT DEP 1934, Orthophotos 1990 – 2010, 2005 Coast infrared, LIS Resource Center, Google Earth) and ground-truthing during the field season 2010-11. The dynamic nature of tidal wetlands results in a shifting mosaic of plant patches, particularly along the regularly flooded margins that are also subject to ice scour in the winter and spring flooding debris. ]*

## East River Tidal Marsh Map Legend

**TA** *Typha angustifolia*, **Narrow leaved cattail**  
Predominantly monotypic; also grades into common reed and smooth cordgrass (brown vegetation pictured).

**PA** *Phragmites australis*, **Common reed**  
Often associated with drainage ditches and inland riparian margins.

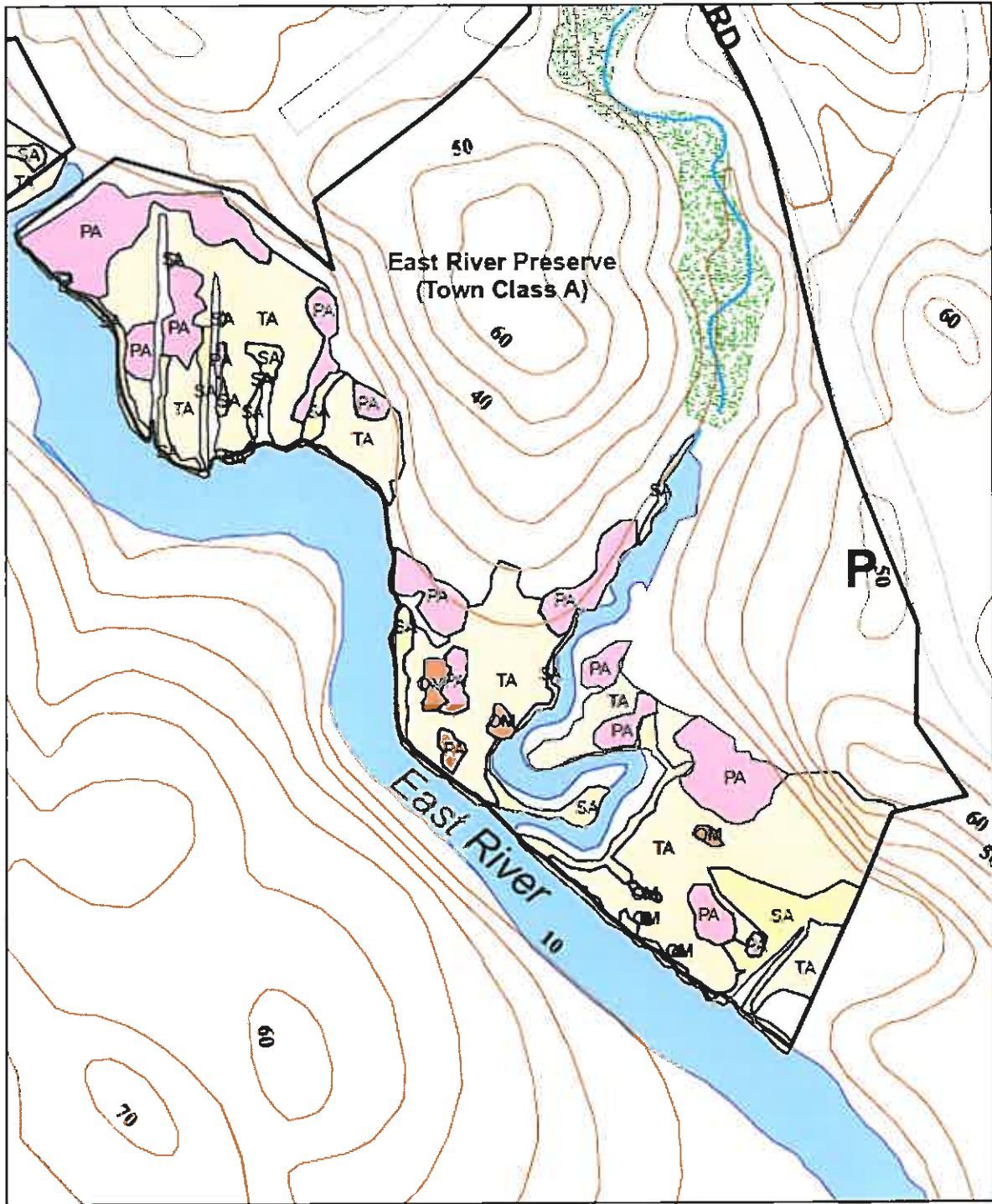
**SA** *Spartina alterniflora*, **Smooth cordgrass**  
Most frequently occurring at lower elevation marsh margins and ditches adjacent to mainstem of East River and tidal inlets. Broad diversity of associated vegetation, including (from north to south): broadleaf arrowhead (*Sagittaria latifolia*), wild rice (*Zizania aquatica*), soft-stem bulrush (*Schoenoplectus tabernaemontani*), mock bishopweed (*Ptilimnium capillaceum*), bulrush (*Schoenoplectus robustus*), water smartweed (*Polygonum punctatum*), common three-square rush (*Scirpus pungens*), prairie cordgrass (*Spartina pectinata*), water hemp (*Amaranthus cannabinus*), annual salt marsh aster (*Aster subulatus*), perennial salt marsh aster (*Symphotrichum tenuifolium*), marsh orach (*Atriplex patula*), mudwort (*Limosella australis*), saltgrass (*Distichlis spicata*) saltmeadow cordgrass (*Spartina patens*).

**OM** **Open Marsh**  
Interspersed within broad stands of cattail, small openings dominated by smooth cordgrass, often stunted, and varying amounts of water hemp (*Amaranthus cannabinus*), asters, and to the south, orach (*Atriplex patula*) and saltmeadow cordgrass. Several of these openings are dominated by mudwort (*Limosella australis*) a species of special concern in Connecticut. Includes areas of sparse vegetation and alternately exposed mudflat and inundated marsh surface.

**U** **Upland (higher elevations within marsh)**  
Eastern red cedar (*Juniperus virginiana*), bayberry (*Myrica pensylvanica*), highbush blueberry (*Vaccinium corymbosum*); lesser occurrences of poison ivy (*Toxicodendron radicans*), climbing hempvine (*Mikania scandens*).



J.Preston 2010



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0 50 100 200 Feet

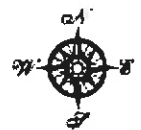
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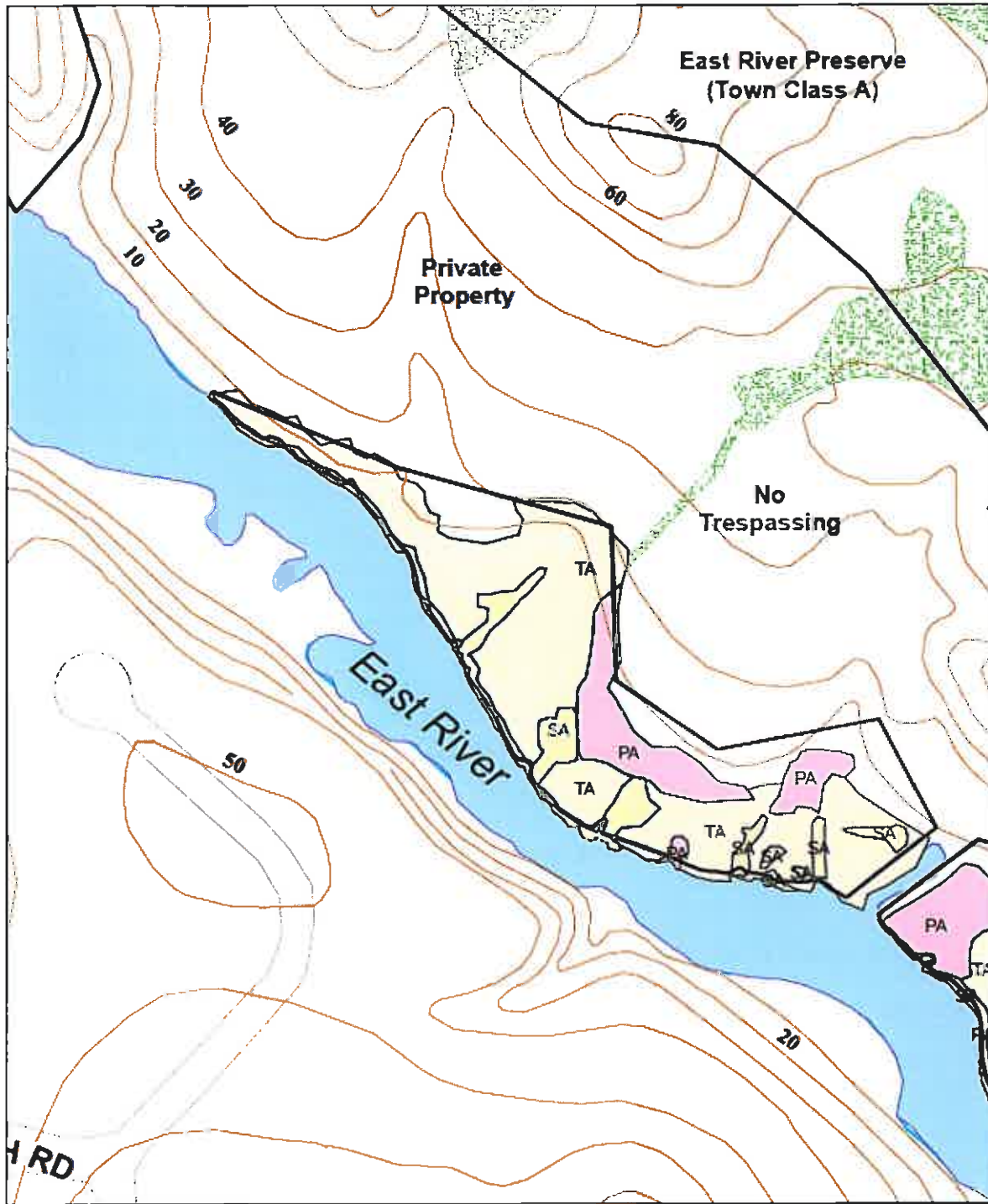


**Town of Guilford  
East River Preserve**

**Tidal Wetlands Botanical Survey  
Map 8a**

Legend	
	open marsh
	phragmites australis
	scouring alfalfa
	hydrilla angustifolia
	algae
	freshwater





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0 50 100 200 Feet

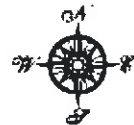
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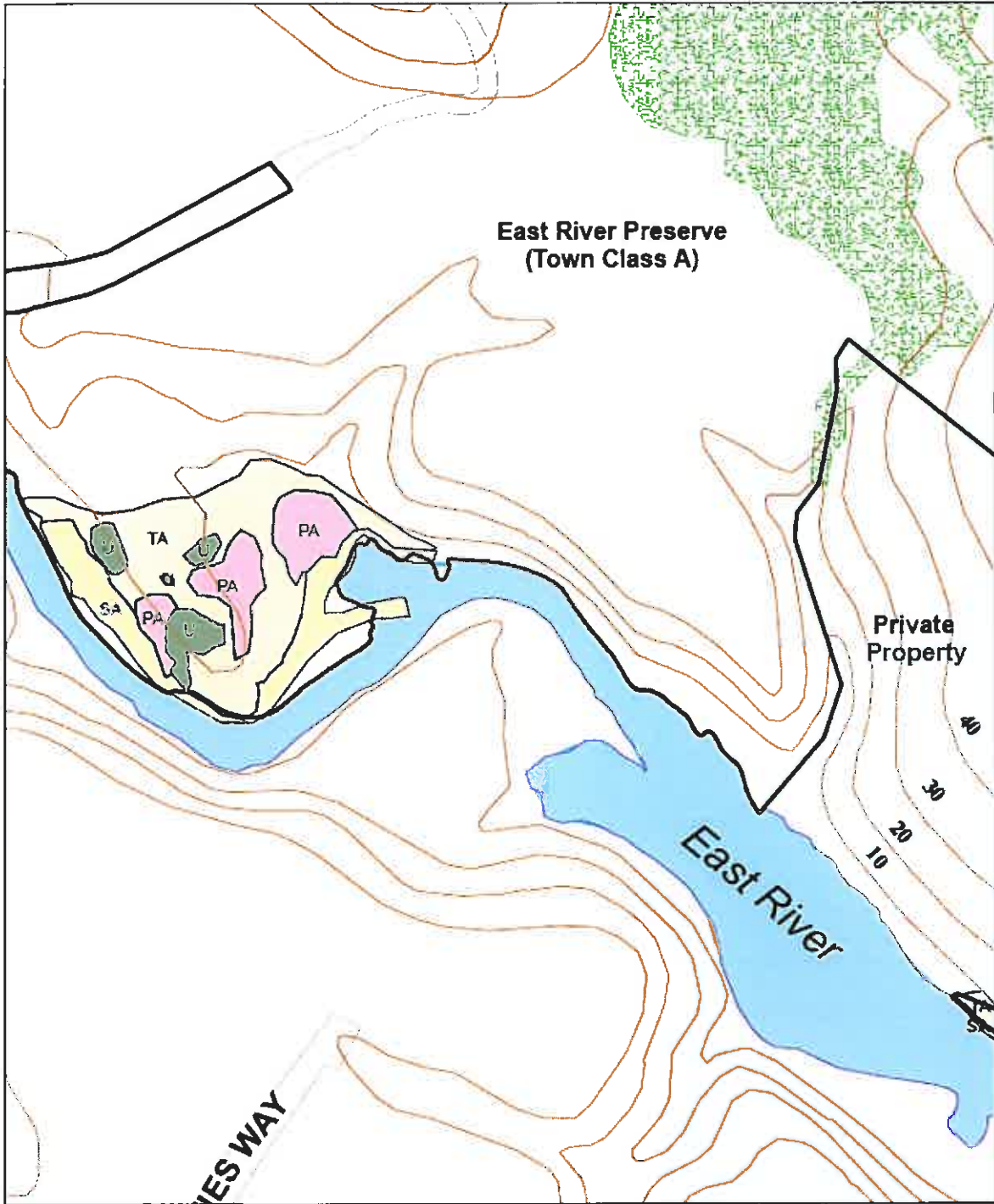


**Town of Guilford  
East River Preserve**

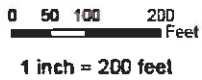
**Tidal Wetlands Botanical Survey  
Map 8b**

Legend	
	open water
	prairie wetlands
	upland wetlands
	uplands
	Wetlands



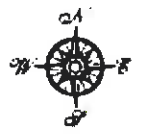


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**Town of Guilford**  
**East River Preserve**  
**Tidal Wetlands Botanical Survey**  
**Map 8c**

Legend	
	open marsh
	phragmites swamps
	spartina swamps
	hydrophytic
	uplands
	Wetlands



East River Tidal Marsh Plants Species List, 2010-2011

Annual salt marsh aster ( <i>Aster subulatus</i> )
Arrow Arum ( <i>Peltandra virginica</i> )
Bayberry ( <i>Myrica pensylvanica</i> )
Beggar-ticks [bur-marigolds] ( <i>Bidens spp</i> )
Broadleaf arrowhead ( <i>Sagittaria latifolia</i> )
Bulrush ( <i>Schoenoplectus robustus</i> )
Canadian rush ( <i>Juncus canadensis</i> )
Climbing hempvine ( <i>Mikania scandens</i> )
Common reed ( <i>Phragmites australis</i> )
Common three-square rush ( <i>Scirpus pungens</i> )
Eastern grasswort ( <i>Lilaeopsis chinensis</i> )
Eastern red cedar ( <i>Juniperus virginiana</i> )
Highbush blueberry ( <i>Vaccinium corymbosum</i> )
Jewelweed ( <i>Impatiens capensis</i> )
Marsh orach ( <i>Atriplex patula</i> )
Mock bishop-weed ( <i>Ptilimnium capillaceum</i> )
Mudwort ( <i>Limosella australis</i> )
Narrow leaf cattail ( <i>Typha angustifolia</i> )
Perennial salt marsh aster ( <i>Symphyotrichum tenuifolium</i> )
Poison ivy ( <i>Toxicodendron radicans</i> )
Prairie cordgrass ( <i>Spartina pectinata</i> )
Royal fern ( <i>Osmunda regalis</i> )
Saltmeadow cordgrass ( <i>Spartina patens</i> )
Seaside goldenrod ( <i>Solidago sempervirens</i> )
Smooth cordgrass ( <i>Spartina alterniflora</i> )
Soft-stem bulrush ( <i>Schoenoplectus tabernaemontani</i> )
Spikegrass ( <i>Distichlis spicata</i> )
Swamp rose ( <i>Rosa palustris</i> )
Sweetflag ( <i>Acorus calamus</i> )
Switchgrass ( <i>Panicum virgatum</i> )
Water hemp ( <i>Amaranthus cannabinus</i> )
Water parsnip ( <i>Sium suave</i> )
Water smartweed ( <i>Polygonum punctatum</i> )
Wild rice ( <i>Zizania aquatica</i> )