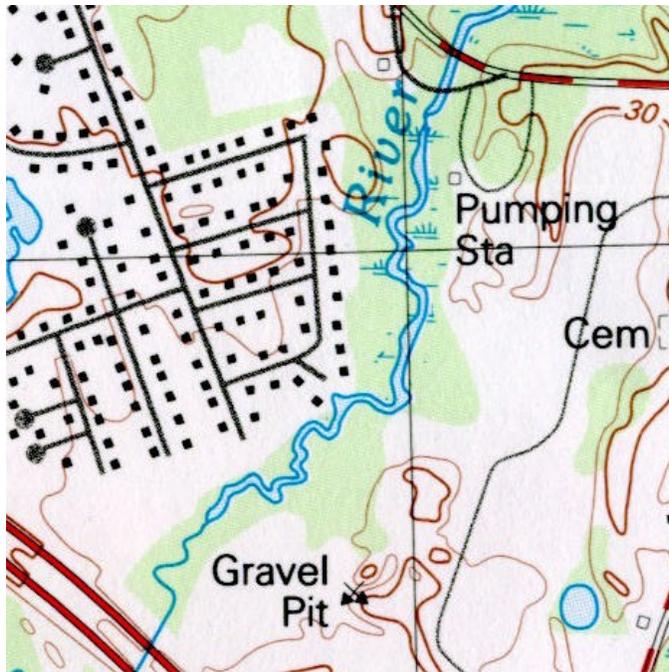


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5. South of Newland Street to Route 495

The northern half of this reach is a mixture of shrub-scrub wetland, shallow emergent marsh and deep marsh. There is a small alluvial Atlantic white cedar swamp on the eastern bank. Some very large blueberries line the western riverbank. An area of Tussock sedge provide habitat for nesting birds and turtles in addition to the snags leaning into the river. The other 50% of this reach (the southern half) is primarily alluvial red maple swamp. A Seep community may be seen just southwest of Newland Street but wasn't verified.



Significant habitat for Spotted turtle is found in this reach in addition to turtle nesting habitat for Snapping and Painted turtle. The two Newland St. bridges provide safe areas for emerging odonates such as Dragonhunter and Ebony jewelwing. A small riffle area provides other significant odonate habitat (dragonflies & damselflies). Tessilated darters, Creek chub suckers, and Chain pickerel can be found close to the bridge and within some of the smaller tributaries. Muskrat middens can be found along the riverbanks with Eastern elliptio and Eastern lampmussel.

Brian Reid of the Wildlands Trust performed a rapid resource evaluation in July of 2000 and found that this reach of

the Canoe River “represents one of the more impacted areas of the river” within the town and he suggested care be taken to minimize further threats to the river and associated habitats. One area was noted to have high quality aquatic habitat and is known to support three rare mussel species. The report also made note of hydrologic stress in some areas and threats from invasive species like Purple loosestrife and Autumn olive. One particular area discussed, two thirds of which was a gravel pit, has revegetated with mostly native plants and represents a potentially important habitat for several species of birds and butterflies.

On May 22, 2006 Jennifer Carlino and Shea Clark investigated two Atlantic white cedar stands within the alluvial red maple swamp. They identified the common plant species in the area and measured the diameter at breast height (dbh) of the Atlantic white cedar in each stand.

On May 25, 2006 Steve Hurley conducted the electroshocking of the river with his assistant, Conservation Agent Jennifer Carlino and Wheaton Fellows Shea Clark. They found American eels, Tessilated darter, Chain pickerel, Brown trout, and Crayfish.

On May 31, 2006 Jennifer Carlino and Shea Clark investigated south of Newland Street on the Water Department property. They found Wood frog, Fowler's toad, Ebony jewelwing, lots of

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moths and cocoons and a red insect. The only plant with a white flower is the swamp fetterbush. We were looking in the Atlantic white cedar swamp area for habitat for the Hessel's hairstreak.

The scheduled June 10, 2006 canoe trip south of Newland Street was rained out.

On July 20, 2006 Jennifer and Jim investigated a shallow emergent marsh, consisting of Red osier dogwood, Joe-pye weed, Climbing boneset, Smartweed, Wild celery, Swamp rose, Buttonbush, Arrow arum, Monkeyflower, Pickerel weed, Riverbank grape, Milkweed, Fanwort, Clearweed, Saxafrage, Elderberry, Northern arrowwood, Highbush blueberry, Red maple, Swamp white oak, Eastern Elliptio, Lampsilis radiata, Least clubtail, Ebony jewelwing, Elegant spreadwing, Monarch butterfly, River jewelwing, Dragonhunter, and Muskrat midden.

On June 16, 2007 we conducted a public canoe trip from Newland St. south to rt. 495. We emphasized public education on this trip and discuss the habitat data in the next few paragraphs. Below are two areas that provide den habitat to a mammal (i.e. mink, fisher).



In August and September 2007 the OSC conducted separate investigations of the Water Department land on the east side of the river. We investigated this larger area that extends south from about the Water Department's pump house on the eastern side of the river to an area including the abandoned gravel pit, currently bordered by Red Mill Village. Red Mill Village is a densely built 55 and older community. The first area in this group (site A) has a western border of the access road into the Water Department's pump house. It is a white pine-oak forest that was

documented by Jenn Carlino on August 30, 2007. The canopy consists mainly of Red maple with a notable presence of Eastern white pine and a smattering of Tupelo, Black and Scarlet oaks. The shrub layer had Buckthorn, Highbush blueberry, Northern arrow-wood and Multi-flora rosa. The herb and vine groups have the most variety including Cinnamon fern, Poison ivy, Canada mayflower, Swamp dewberry, Sensitive fern, Grapes, Skullcap, Virginia bugleweed, False nettle, Mild water pepper, Carex, Tall meadow rue, Steeplebush, Royal fern, Massachusetts fern,

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Eastern Joe-pye weed, Cardinal flower and Late goldenrod. The Gray tree frog was the only wildlife constituent noted.

The second site (Site B) within this larger group was reviewed by Pat MacLeod, Jenn Carlino and Jim Hendrickson on September 13, 2007 and is continuing south in the overall parcel. The natural community has become a white pine forest with the content of Eastern white pine at around 50% and White oak, Red maple, Black oak, and Scarlet oak all splitting the difference about equally. Saplings observed in the area make up proportions consistent with the canopy but also include Tupelo and Northern red oak. The most common shrubs were Black Huckleberry and Late lowbush blueberry with European buckthorn, Early lowbush blueberry, Swamp azalea, Winterberry, and Japanese barberry. Herbaceous plants include Eastern starflower, *Diphysastrum digitatum*, *Dendrolycopodium obscurum*, Canada mayflower, Grass, Striped wintergreen, Common dewberry, Cinnamon fern, and Wild sarsaparilla. The vines seen were Greenbriar, Poison ivy, and Bittersweet. Directly observed wildlife was limited to Wood frogs, but wildlife sign observed were deer scat, Gray tree frog calls, Cricket, and Squirrel sign. Animal burrows were present, as were turtle nesting sites. There was an abundance of large woody debris on the ground.



Brown snake (left) Jim Hendrickson catching dragonflies (right)

The third and final section of this group (site C) is the gravel pit area and was visited on two separate occasions, September 9, 2007 by Jim Hendrickson, Pat MacLeod, and Jenn Carlino and on September 30, 2007 by Joan Guerrero, Jim Hendrickson and Jenn Carlino. There is a good variety of large trees common to this region without a single species being obviously dominant. Specific species noted are Scarlet oak, Big tooth aspen, Quaking aspen, Black locust, Black cherry, Pin cherry, Gray birch, Red maple, Eastern white pine and Common catalpa. Saplings observed include most of the species listed above with the only addition being Pitch pine. The shrub layer contained almost 100% Autumn olive consistent with the comments from Brian Reid (biologist from Wildlands Trust) in July of 2000. The Herbaceous plants again have the widest variety and include: Frost grape, Haircap moss, Orange grass, Swamp beggars-ticks, Yarrow, Spirea, Raspberry, British soldier, Rushes, Little bluestem, Dwarf dandelion, Common yellow wood sorrell, Small pussy-toe, Indian tobacco, Pearly everlasting, Small white aster, Lance leaved goldenrod, Rough stemmed goldenrod, Round headed bush clover, Multi- flora rosa, Common moonwort, Virginia creeper, Bittersweet, and Cinquefoil. We did not observe any particular animal borrows but there is a vernal pool in this section. Otherwise observed wildlife

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or wildlife signs were: Crickets, Smooth brown snake, American toad, Cardinal, Pearl crescent, Eastern tailed blue, Praying mantis, Monarch butterfly, Blue jay, Golden digger wasp, Locust borer beetle, nests, and Raccoon scat.

On September 20, 2007 we covered two areas on the western side of the river, south of Newland Street, the first of which is an upland position that is a successional white pine forest. This section was documented by Jenn Carlino, Pat MacLeod and Jim Hendrickson. Full grown trees were limited to Eastern white pine, but saplings include Northern red oak, White oak, Black oak, and Black cherry in addition to Eastern white pine. Shrubs were fairly limited and include only Highbush blueberry and European buckthorn. Herbaceous plants documented were Hay scented fern, Common dewberry, Canada mayflower, Greenbriar, Poison ivy, Northern arrow-wood, Royal fern, Goldenrod, and Virginia creeper.

The second position observed on this date by the same personnel is a red maple swamp. Large trees are almost exclusively Red maple, but also include some American elm and a bit of Eastern white pine. Saplings present were White oak, Northern red oak and hickory. Shrubs are European buckthorn, Northern arrow-wood, Highbush blueberry, Turtlehead, and Winterberry. Herbs identified are Cardinal flower, Sensitive fern, False nettle, Skullcap marsh, Purple loosestrife, Grass, Virginia creeper, Bittersweet, Multi-flora rose, Late meadow-rue, Spotted Joe-pye weed, Bidens frondosa, Jewelweed, Dodder, Bedstraw, Marsh bedstraw, and Purple aster. As to wildlife we saw Red lacewing, deer scat and heard a Gray tree frog call. We did not see any animal burrows but did note that there were perches over the water, an abundance of woody debris on the ground, and a vernal pool.

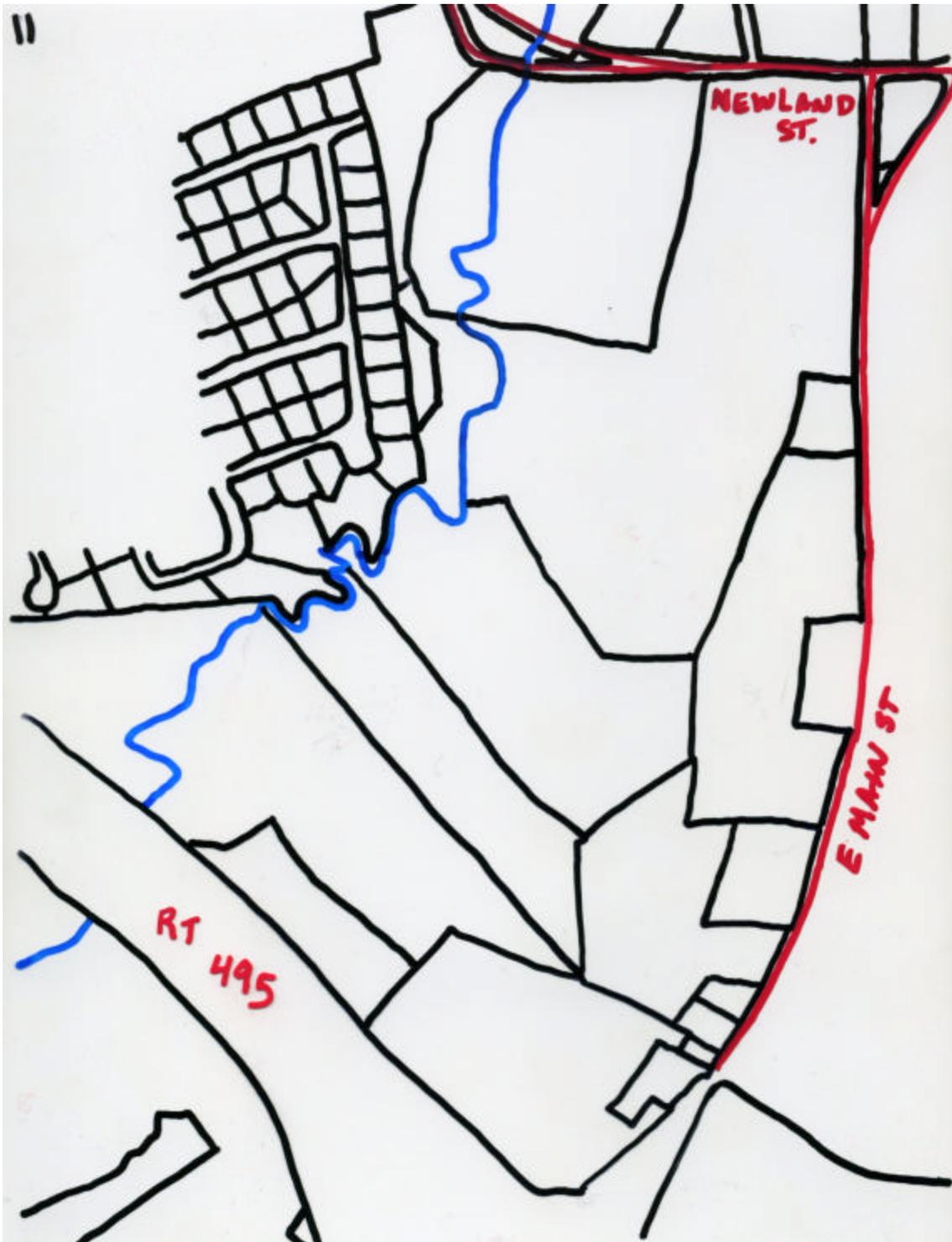
Three certified vernal pools are found in this reach. Four potential vernal pools can also be found along the river within the wetlands.

Approximately 55% of the river is permanently protected by the Water Department, Conservation Commission and a conservation restriction held by the Conservation Commission.



Fisher tracks

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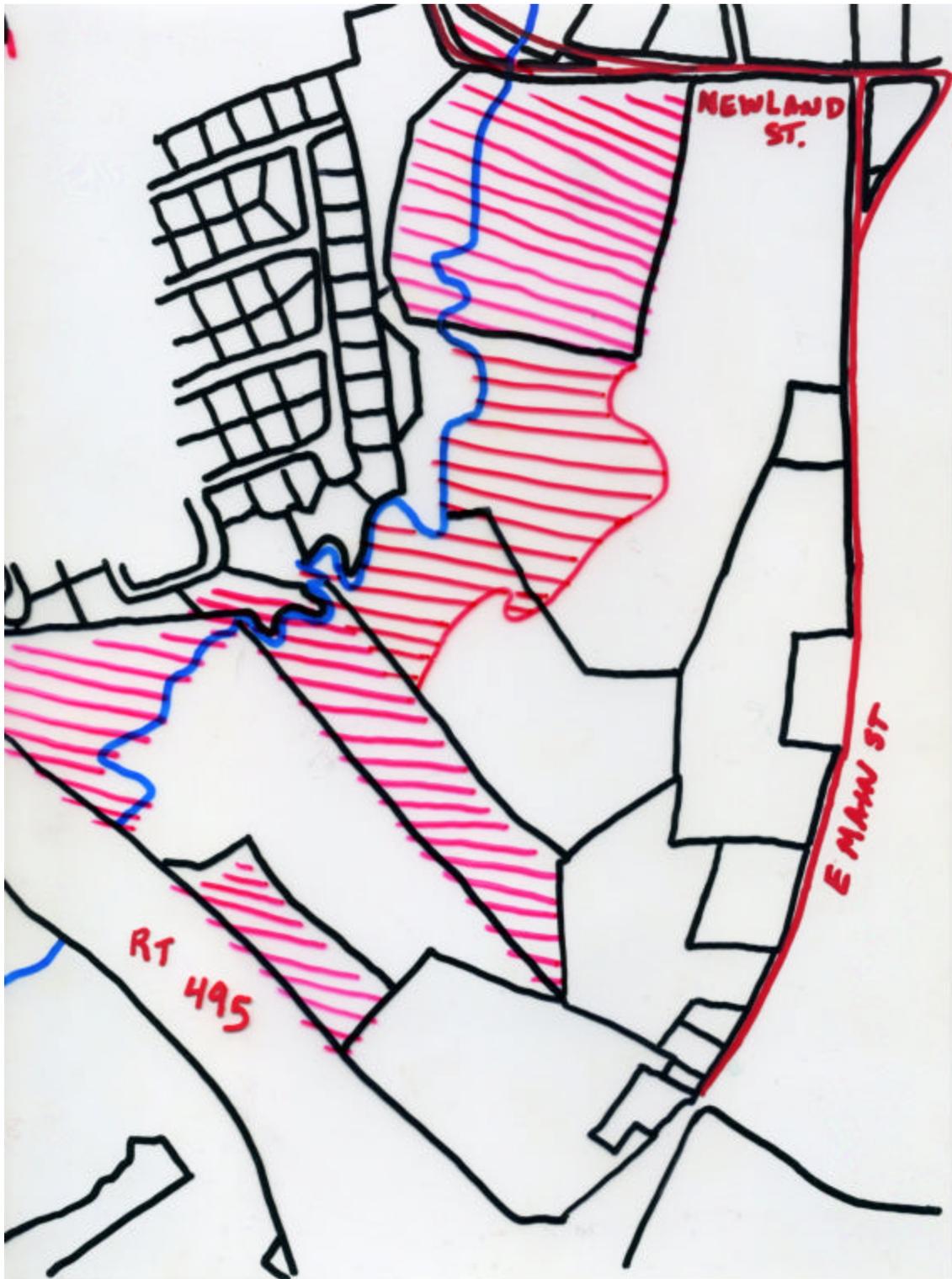
This is the parcel map was taken from the Town of Norton Assessor Maps. The parcels are outlined in black. The Canoe River is outlined in blue. Newland Street and East Main Street are shown in red. North is at the top of the page and the scale is roughly 1"=200', but obviously reduced on this page.

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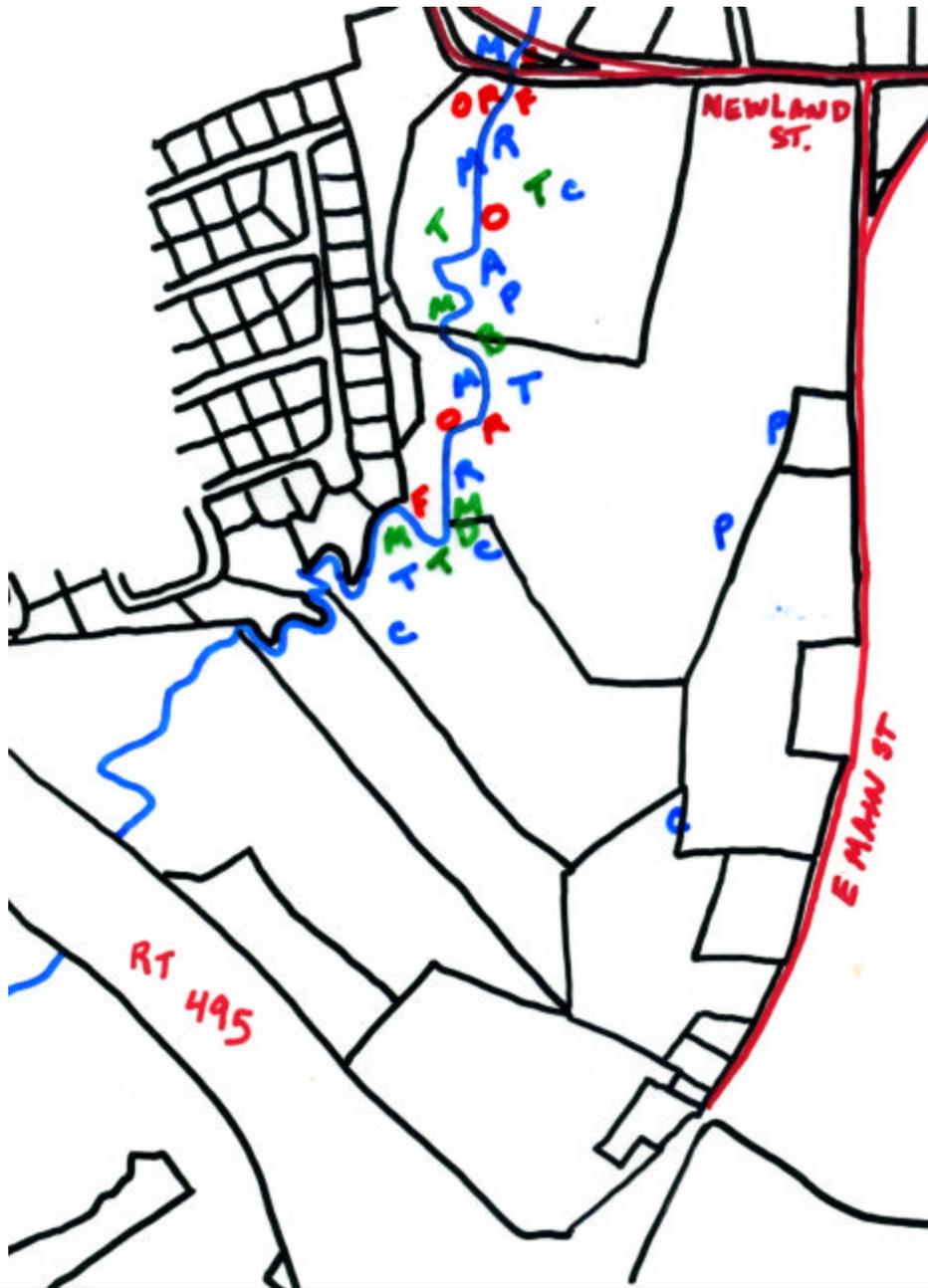
Natural Community Type			
Solid		Striped	
	Alluvial Red Maple Swamp		White Pine-Oak Forest
	Red Maple Swamp		Successional White Pine Forest
	Alluvial Atlantic White Cedar Swamp		Mixed Oak Forest
	Atlantic White Cedar Swamp		Cultural Grassland
	Shrub-Scrub Swamp		Coastal Plain Pond
	Deep Marsh		
	Shallow Emergent Marsh	Hatched	
	Open Water		Pitch Pine-Oak Forest
	Woodland Vernal Pool		

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Permanently protected land includes land owned by the Norton departments of the Conservation Commission, Water Department and the Recreation Commission; Land Preservation Society of Norton; a conservation restriction held by the Conservation Commission and land under the Care and Control Agreement with DFW.

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Observed Wildlife		Wildlife Sign		Significant Feature	
A	Amphibian	B	Browse (deer/muskrat)	C	Certified Vernal Pool
B	Bird	D	Deer track, scat, sign	M	Mussel bed
F	Fish	M	Midden (muskrat, otter, mink)	P	Potential Vernal Pool
M	Mammal	T	Track, scat, sign (other)	R	Riffle/pool
	Odonate			T	Turtle nest site
	Reptile				