Shoreline Survey Section 12

Segment Begins: Packard Pond Brook
Segment Ends: Connecticut Border

This segment is essentially the Perryville dam impoundment. This area is documented by the USGS as being heavily silted up with industrial waste material from dyeing and lens grinding. Yet, much of the bottom is sandy, with healthy submerged plant growth and many fish.

The banks in this segment are densely covered with brush, often barely penetrable, and trees. The banks range from muddy beaches to perpendicular banks, often eroded and eight feet or more high. On the left side, there is a wooded area extending to the active railroad tracks, after which the land slopes steeply uphill to a residential street. On the right side is Lower Perryvile road, which curves away and uphill from south to north, creating a wooded area and wetlands, with homes further from the river and then to Rt. 12. Plans are being developed by the state of Massachusetts to replace the aging Perryville and Lower Perryville road bridges and repair the canal problem.

For the 200 ft. below the dam until the state line, the bottom is rocky with riffles. The banks are 1-2 ft. high and lined with trees and brush. There is small trash on the bottom.

A canal runs on the right side from just above the dam to below the CT border. The control gate is deteriorated and is letting the water level fall below dam height, exposing sediment. The canal contains large trash items.

The stream bottom is mostly sand with deceasing amounts of silt and gravel, cobbles, rocks and boulders, and is colored brown. The water is clear with no odor, flows slightly above the dam and swiftly below, and is more than 1 ft. deep. The depth varies seasonally. There are numerous pools and riffles especially below the dam.

There are areas of dense vegetation in sections of the stream above the dam, primarily loosestrife and arrowhead. Wetlands are present and are degraded by abundant loosestrife.

Trees and shrubs overhang and shade about 95% of the stream. Both banks show trees and shrubs, brambles, wetlands and marsh, and erosion. Both riparian areas are forested. The left bank extends for 25 to 75 yards, while the right bank extends for 10 to 100 yards or more and includes Lower Perryville Rd. Land uses visible from the river include industrial, residential, roads, railroads, undeveloped/unprotected land, wastewater treatment plants, and, wooded areas. The Perryville road bridge area is a continuous trash dumping problem area and requires continuous attention. The entire section above the dam on both sides is potential open space, as it is unused and undeveloped. There is no designated public access to the river. The once closed Lower Perryville Road is used a ½ mile walking trail. A paddling launch point at the dam would allow a ¾ mile upstream paddle.

Fish are abundant and include smallmouth bass, bluegill and pumkinseeds. Other forms of aquatic life include insects, turtles, frogs, snakes, snails and mussels. The out of range red eared slider turtle *Trachemys scripta elegans* has been documented above the dam. These turtles, once sold as pets, were probably released by their owners into the river and have survived but are probably not reproducing. Wildlife habitat elements present in the water include pools and riffles, gravel stream bottom, rocks and boulders, emergent and overhanging vegetation, fallen trees and undercut banks. Holes, teeth marks, food storage/eating, scat and tracks show evidence of deer, beavers, muskrats, fox, mink, otter, gray squirrel and chipmunks. Wildlife elements located near the stream include standing dead trees, fallen trees, scattered rocks and boulders, stone walls, vines and vernal pools. Birds are numerous and include herons, mallard ducks, wood ducks, kingfishers, Canada geese, swallows, redwing blackbirds, turkeys, cedar waxwings and mute swans. The riparian areas are linked to wetlands adjacent to the stream and vegetated areas at least 100 ft. wide.

Shoreline Survey Field Data Sheet Section 12

Segment begins: Packard Pond Brook
Segment ends: State Line

Date: 6/26/05-7/5/05
Observers: Ken Parker, Elaine Parker, Alan Dabrowski
Today's weather: Clear and Warm
Weather over past 24 -48 hours: Clear and Warm

INSTREAM CONDITIONS

Stream bottom

1. What is stream bottom made of? *(mark from 1=most typical to 6=least typical)*

( )Organic debris (leaves, twigs) (3) Gravel (1/4 - 2")
(**2**)Silt (mud) ( )Cobbles (2 -10')
(**1**)Sand (l/l6 to 1/4") ( )Boulders (> 10")

2. What color is the stream bottom? *("X" one)*

( )Black (**X**)Brown ( )Orange/Red ( )Yellow ( )Sandy ( )Gray ( )Other(describe):

Water

3. What color is the water? *("X" one)*

( )Cloudy ( )Tea ( )Milky ( )Muddy (**X**)Other (describe): **Clear**

4. What is the water odor? *("X" one)*

(**X**) None ( )Rotten eggs ( )Musky ( )Fishy ( )Oily ( )Ammonia ( )Other(describe):

5. Problem areas. *("X", describe location and cause, if apparent. Locate on map.)*

( ) Oily sheen or smell:
( ) Sewage: smell, milky color, toilet paper:
(**X**)Foam or scum (describe. Does a stick break it up?): **Small flecks at Packard Pond pour**
( ) Fishy odor or fish kill:
(X) Floating garbage: Occasional cans, bottles and debris
(x) Excess sedimentation: Behind dam

6. How deep is the water? *("X")*

( )Less than 1' (**X**)More than 1' ( )More than 2' ( )More than 3' **Deeper in spots. Seasonal variations.**

7. How does the water level compare to normal for this time of year? *("X")*

( )Normal ( )Higher (**X**)Lower ( )Don't know If very high or low, can you tell why?: **Canal Gate is broken and letting water through**

8. Is the water flowing *("X")* ( )Quickly (X)Slightly ( )Almost still Seasonal variation, most rapid in winter and spring, and almost still in dry seasons.

9. Number of pools: 3 Number of riffles: 0 ( )Don't know

10. Is stream flow blocked by...*("X" and locate on map.)*

( )Trees ( )Trash ( )Large objects ( )Vegetation **There are downed trees, but they don't block flow**

Vegetation

11. Are there areas of extremely dense or clogging aquatic vegetation in any section? (**X**) Yes ( )No
If yes, locate on map and describe cause, if obvious: **Emergent vegetation in all coves and on points**
Species, if known *("X")* ( )Duckweed ( )Water chestnut (**X**)Other : **Loosetrife and Arrowhead**

12. Are there areas covered with algae? *("X")* ( )Streambed ( )Around pipes
lf algae seems abnormally heavy, locate on map. Draw in extent of algae on map.

13. Are there wetlands? *("X" ,locate on map.)* (**X**)Yes ( )No If yes, are they degraded by... ("X")
( )Phragmites (**X**)Purple Loosestrife ( )Fill ( )Blockages ( )Ditches ( )Sediment ( )Disturbed banks ( )Pipes ( )Trash ( )Other(describe):

STREAM CORRIDOR CONDITIONS

Riparian Area and Land Use

14. Do trees and shrubs overhang the stream and provide shade? *("X")* (**X**)Yes ( )No
If yes, estimate what percentage of the bank is shaded: **95%**

15. What are the stream bank conditions? *("X". Also put an asterisk "*" next to the most common.)*
Left Bank: (Looking downstream) (If doing only one bank, indicate which one)
(**X**)Eroding ( )Moss (**X**)Trees/Shrubs ( )Exposed Roots ( )Grass/Flowers ( )Loosestrife/Phragmites
( )Beaches ( )Riprap/channelized (**X***)Shrubs/brambles (**X**)Wetlands/marsh

Right Bank: (**X**)Eroding ( )Moss (**X**)Trees/Shrubs ( )Exposed Roots ( )Grass/Flowers
( )Loosestrife/Phragmites ( )Beaches ( )Riprap/channelized (**X***)Shrubs/brambles (**X**)Wetlands/marsh

16. Is there a vegetated riparian area beyond the stream bank? If yes, indicate condition. *("X". Also put an asterisk "*" next to the most common.)*
Left Bank: ( )Shrubs/grasses ( )mowed pasture/meadow (**X***)Forested/trees ( )Park with few trees
( )Lawn
Right Bank: ( )Shrubs/grasses ( )mowed pasture/meadow (**X***)Forested/trees ( )Park with few trees
( )Lawn

If area is not vegetated, please describe condition: (i.e. parking lot, pavement, roadway, buildings)
Left Bank:
Right Bank: **Includes the closed lower Perryville Road adjacent to bank at lower section**
17. If the riparian area is forested or in shrubs and grasses, estimate width of the vegetated area (to a lawn, road, or other change in land use): left bank : **25-75 yds** right bank: **10-100+ yds**

18. Are there places that have fill or clear-cutting? *("X")* ( )Yes (**X**)No
If yes, mark locations on map as fill F1 , F2, F3. Etc (or clear-cutting CC1 CC2, CC3, etc).

19. What are the land uses visible from the river? *("X" and "*" the dominant land use type.)*
(**X**) Industrial ( ) Parking lots ( ) Golf courses
( ) Commercial (**X**) Roads ( ) Protected/conservation land
( ) Agricultural ( ) Landfills (**X**) Undeveloped/unprotected land
(**X**) Residential (**X**) Railroads (**X**) Wastewater treatment plants
( ) Park/ ballfields ( )Junkyards (**X***) Wooded areas ( )Other (describe):

20. Do you see runoff from any of the following? *("X". " *" If run-off is significant locate on map.)*
( )Manure ( )Pet / goose droppings ( )Parking lots ( )Sewage ( )Roads
( )Bridges ( )Construction ( )Plowed fields ( )Lawns ( )Other(describe):

Pipes: Please fill out separate pipe survey and mark locations on map as P1, P2, P3, etc.

Trash: Describe any potential cleanup areas. Locate on map: **A few tires and other objects can be seen, on the bottom or exposed by low water, which can be retrieved throughout the section, especially the upper part and around the point near Perryville Dam. The right side is a candidate for annual cleanup of floating trash every year. The area around the closed road requires continual attention**.

Potential Open Space: Describe and locate on map: **The entire section above the dam on both sides is potential open space, as it is unused and undeveloped.**

Recreation
21. Is there designated public access to the stream? Is it appropriate for… *("X" and locate on map.)*
( )Canoeing ( )Fishing ( )Swimming ( )Walking ( )Bicycling ( )Other(describe):

22. Are there areas which are informal or potential access points? ( )No (**X**)Yes (*Describe and locate on map):* **The closed Lower Perryville Road is used as a paved ½ mile walking trail. A paddling launch point at Perryville would allow a ¾ mile upstream paddle.**

WILDLIFE / HABITAT

Aquatic Habitat/Species
23. Do you see fish or evidence of fish? *(describe):* **observed fish swimming and caught one**
Estimate number: **100's** If possible, describe species & size. **Smallmouth bass, bluegill, pumpkinseeds**
Evidence of fish? (i.e. nests): Nests evident

24. Other forms of aquatic life*? ("X", identify species if known)*
(**X**)Aquatic insects (x)Turtles (**X**)Frogs ( )Salamander (xx)Snail (x)Mussels (x)Snakes ( )Clams
( )Other: Spring peepers, wood frogs, bullfrogs
Evidence of aquatic species? (i.e. eggs, tracks) : **Heard Bullfrogs, have seen turtles in Spring**

25. Wildlife and fish habitat elements present in water *("X")*
(x)Pools and riffles in stream
(x) Gravel stream bottom
(x) Rocks and boulders in stream
(**X**)Emergent aquatic vegetation
(**X**)Vegetation hanging over the banks and water
(**X**)Fallen trees in water
(**X**)Undercut banks

Riparian Habitat/Species (look along stream bank and vegetated riparian areas)
26. Animals or evidence of animals? *("X")*
(x)Holes (**X**)Teeth marks (x)Food storage/eating ( )Dens (x)Scat (**X**)Footprints/tracks
Specific animals seen (or evidence of): **Saw deer, deer beds and tracks, beaver gnawed trees. Have previously seen muskrats, fox, mink, otter, squirrels, chipmunks**

27. Wildlife habitat elements located near the stream *("X")*
(**X**)Standing dead trees
(**X**)Fallen tree limbs and trunks
(**X**)Scattered rocks and boulders
(**X**)Stone walls (without cement)
(**X**)Vines
( )Springs and seeps
(**X**)Vernal pools

28. Birds? *("X")* (**X**)Herons (**X**)Mallard ducks (**X**)Wood ducks (x)Kingfishers (**X**)Canada geese
Other: **Swallows, Redwing Blackbirds, Turkeys, Cedar waxwings**
Evidence of birds: (i.e. nests, footprints):

29. Do you know if there are rare & endangered species of plants or animals in your segment? If so, identify: **Red eared slider turtle seen and photographed.**

30. Links from riparian area to other areas of wildlife habitat: *("X")*
(**X**)Wetlands adjacent to stream
( )Abandoned cropland or pasture near stream
(**X**)The riparian area is vegetated with trees and/or shrubs at least 100 feet wide
( )The riparian area connects to adjacent open space or greenway

Shoreline Survey Priorities for Action
Section 12

Assets

There is a wide, varied habitat corridor on both sides that continues nearly a mile below the segment

Both sides of the river are described as components of a trail network by CMRPC, linking to Grand Trunk and the Quinebaug Rail Trails

Paddling access is possible near the dam from Perryville road

Problems

Low water levels above the dam due to deterioration of the canal gate

Invasive purple loosestrife

Possible encroachment of industry at the upper west side

Continued dumping of trash from Perryville Road and captured trash from upstream.

Actions

Canal gate repair

Advocate for application of river and wetlands protections at Dudley Planning and Conservation Committee meetings

Continued attention to the trash dumping problem

Advocate for river trails/greenways with town and state officials and participate in studies and on trail committees.