HOOSIC RIVER WATERSHED ASSOCIATION

Shoreline Survey Report & Action Plan: Summer 2012

Report Compiled by Julieanne Fontana

Edited by HooRWA

Photo: View from Buskirk Bridge, July 2012

I. Introduction: Hoosic River Shoreline Surveys

In the summer of 2012, the summer interns for the Hoosic River Watershed Association conducted Shoreline Surveys along the Hoosic River. The river was broken down into various sections based on characteristic changes in the stream and riparian habitat. The surveys identified human impacts on the river that require immediate attention for the health of the river. They also provide a documentation of other human impacts, like outflow and drainage pipes, and natural qualities for reference in the future.

II. Priority Action for Immediate Attention

The items mentioned here should be reviewed as soon as possible, as immediate change could make a difference to the health of the river. Other less urgent problems are mentioned in the full report summaries.

<u>Priority Action 1</u>: Oily, red-brown seepage
GPS Location: N42.71785 W73.18877

Oily orange-brown seepage was seeping out of the ground near outflow pipes just upstream of Cole Avenue bridge in Williamstown. The seepage did not seem directly related to the outflow pipes, but may be an affect of the nearby road or old mill building. {Checked with DEP – seepage is organic with iron oxide; Editor}

<u>Priority Action 2:</u> Sewage odor outflow pipe
GPS Location: N42.71973 W73.19049

Downstream of the Cole Avenue bridge about 100 yards, this outflow pipe was flagged as potentially unsafe. It had a sewer gas odor and the area where the outflow dumped into the stream was separated off, though not sealed from the rest of the river. {Railroad cleanup site – Editor}

<u>Priority Action 3:</u> Concrete blocks across stream width
GPS Location: N42.82332 W73.30917

Between the Pownal Tannery Dam and Little Hoosic River Confluence, concrete blocks run diagonally down and across the stream. Only a small area of the stream flow is passible. The concrete blocks seem to have been riprap in the past, though have been across the stream since at least 2006 according the Google Earth past satellite images.

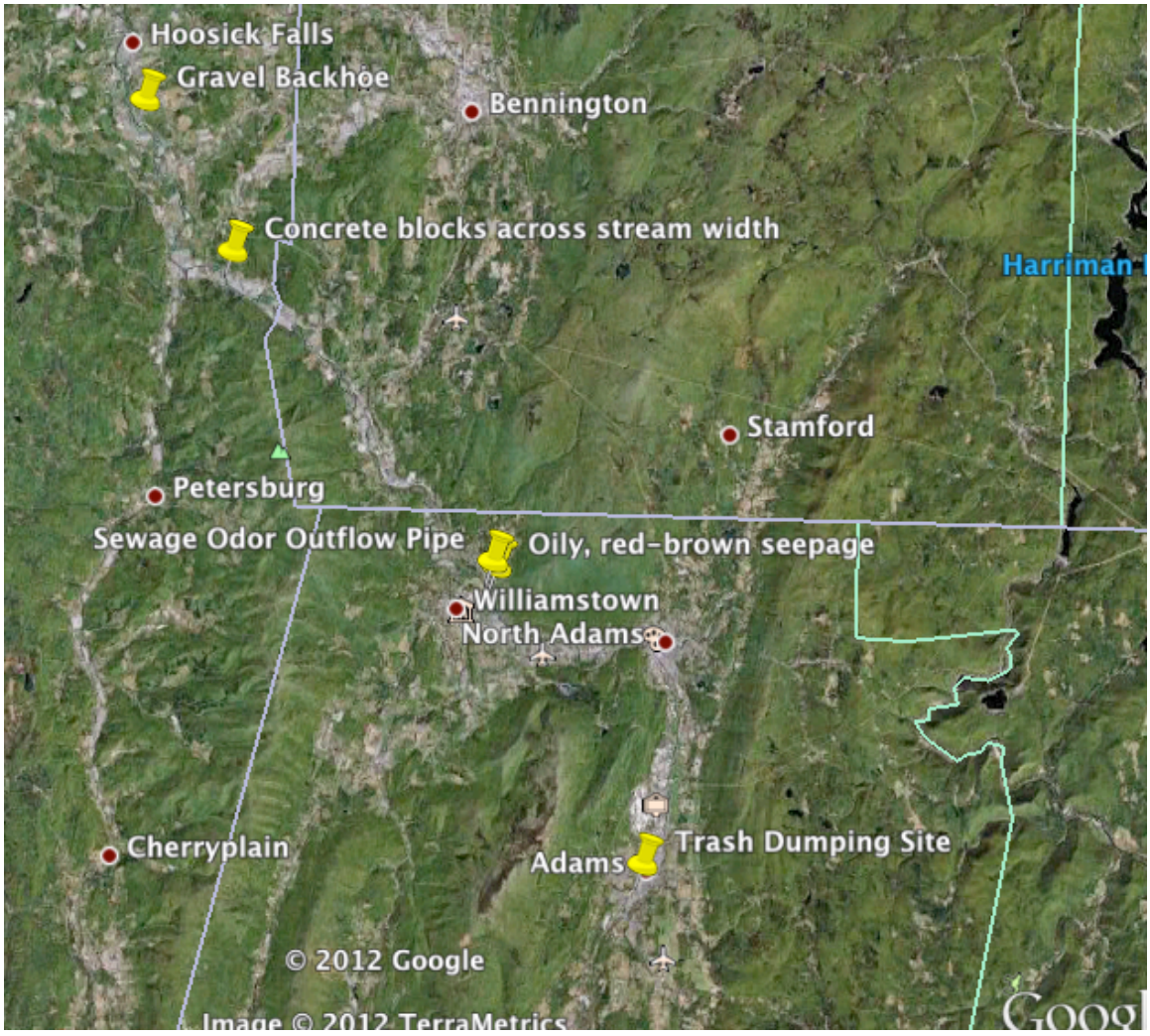
<u>Priority Action 4:</u> Gravel backhoe
GPS Location: N42.87394 W73.34931

A large excavator was observed not too far upstream from the Hoosick Falls stormwater chutes. There seemed to be a dirt road for the excavator to travel to the streambed, which was made up of gravel. It would be a good idea to check up on this operation and make sure the gravel mining is legal.

<u>Priority Action 5:</u> Trash Dumping in Adams
GPS Location: N42.61841 W73.12244

A small parking lot at the start of Noble Place was observed as a site of trash dumping into the chutes. Food containers were seen on the concrete below outside the main stream flow. Adding a city trash can to this site seems like a feasible solution to end dumping. {Signs and local fines could also help. Editor}

Attached is a map showing the general locations of the priority action sites – see the GIS Maps for more specific information.



III. Summaries and Action Plans for Hoosic River Sections

Section 1: Cheshire Reservoir to Adams

Surveyors: Jake Laughner, Julieanne Fontana

Significant Tributaries: Thunder Brook, Kitchen Brook, South Brook
Access Points: Ashuwillticook Trail
Access Method Used: walking along Ashuwillticook Rail Trail

Overview: The first few miles of the south branch of the Hoosic originating at Cheshire Reservoir consists of a narrow, shallow waterway surrounded by marshland on alternating sides. This area, commonly referred to as the "jungle," is not easily navigable by canoe, but can be viewed from the Ashuwillticook Rail Trail, which runs alongside the river into Adams. The cloudy water was less than 1foot deep on average with a streambed of mostly cobbles and gravel. In the first half, marshlands were the only visible land use on both banks. After a dam just off Harbor Road, the riparian area became more wooded and the river flowed below the Rail Trail in a ravine. Use of riprap was observed on Harbor Road extension just before the bridge. The dam, with a 10' drop, seemed in poor condition due to broken concrete at its sides.

Beginning of south branch, commonly referred to as the "jungle"

Natural Resource and Assets	Problems	Priority Actions
• Access to marshlands and wooded area along Rail Trail	• Condition of dam downstream of Harbor Road.	• Contact DEP or DCR to inspect dam.

Section 2: Adams Chutes

Surveyors: Jake Laughner, Celeste Venolia, Julieanne Fontana

Significant Tributaries: Hoxie Brook, Tophet Brook, Dry Brook, Miller Brook
Access Points: None
Access Method Used: Walking through town

Overview: The Adams stormwater chutes run from Reeves Street to Lime Street, which spans the entire length of the town. The sides and bottom of the chutes are concrete with an observed water depth of less than 1 foot. The chutes are much wider than the stream flow in this summer low water level and the areas without the main flow are covered in green and brown algae. Many outflow pipes and run-off from parking lots and roads characterize this section.

Common outflow and algae along chutes

Natural Resource and Assets	Problems	Priority Actions
• Stormwater chutes prevent flooding of downtown area.	• Concrete chutes are a poor environment for wildlife	• Trash dumping over side of chutes near Noble Bridge (see Priority Action for Immediate Attention section)

Section 3: Adams to North Adams

Surveyors: Jake Laughner, Celeste Venolia, Julieanne Fontana

Significant Tributaries: Bowerman Creek, Phillips Creek,
Access Points: Noel Field, Vegetated berms
Access Method Used: Driving to access areas, walking through when possible

Overview: Much of this meandering section runs through private farmland and so access was not possible. At the Lime Street Bridge in Adams where the section starts, the streambed is made up of cobbles and gravel with a vegetated area on both sides. The farmland ends at Hodges Cross Road, where the river is wider, deeper, and the streambed is made of mostly silt and gravel. Along the berms, wood ducks, kingfishers, Canada geese, and black ducks were observed. This section is a good area for walking and can be accessed from Noel Field. Just past the field, the North Adams flood chutes begin.

Canada geese along Hoosic River Greenway

Natural Resource and Assets	Problems	Priority Actions
• Walking area on berms and connection to Noel Field in North Adams. Wildlife	• Berms separate the river from wetlands.	• Hose and pipe at Hodges Cross Bridge.

Section 4: North Adams Chutes

Surveyors: Jake Laughner, Celeste Venolia, Julieanne Fontana

Significant Tributaries: North Branch Hoosic River, confluence of North and South Branches of the Hoosic River
Access Points: None
Access Method Used: Walking through town

Overview: The North Adams flood chutes include the South Branch of the Hoosic coming from Cheshire and North Branch originating in Stamford, Vermont. The two sections eventually converge within the chutes just past Mass MoCA. Like the Adams chutes, this section was also channelized with concrete bottom and sides and covered in algae outside of the main stream flow. The chutes begin east of the Eclipse Mill and end just past the Route 2 Bridge over the Hoosic. Many outflow and drainage pipes are connected to the stream, flowing from lawns, roads, parking lots, and potentially old industrial buildings.

Above Eclipse dam.

Natural Resource and Assets	Problems	Priority Actions
•	• Concrete chutes are a poor environment for wildlife	• Support Hoosic River Revival Coalition

Section 5: North Branch – Readsboro, VT to North Adams, MA

Surveyors: Jake Laughner, Julieanne Fontana

Significant Tributaries: Roaring Brook, Hudson Brook
Access Points: Road crossings, Natural Bridge State Park
Access Method Used: Walking through town (N. Adams) Driving/walking in Stamford and Clarksburg

Erosion along Route 8

Overview: The North Branch of the Hoosic begins in Readsboro, Vermont, where it is shallow, steep, and hard to access. The river generally follows along Route 8, though most always has at least a small riparian area separating it from the road. The streambed is made of boulders and gravel and erosion exists in some areas close to the road. In one area in Stamford, the road is beginning to collapse and fall down the streambed.

Natural Resource and Assets	Problems	Priority Actions
• Natural stream bed.	• Erosion along road in some areas	•

Section 6: Ashton Ave. to Green River confluence

Surveyors: Jake Laughner, Julieanne Fontana

Significant Tributaries: Green River
Access Points: Ashton Ave. canoe launch

Overview: This section of river begins after the three small dams in North Adams and is characterized by fast, cloudy water following a meandering path with a streambed of mostly cobbles and gravel. Heavy knotweed invasion was noted on both banks within the riparian area of trees, shrubs, grasses, and flowers. Land use visible from the river includes residential areas, roads, and undeveloped land.In the beginning of the stretch, animal tracks and slide marks potentially from an otter were observed .Also, concrete slabs were on the bank of the river about 100 yards downstream of the Ashton Ave. launch. The section ends when the Green River meets the Hoosic, next to Linear Park and upstream of Cole Field.

Green River confluence

Natural Resource and Assets	Problems	Priority Actions
• Canoe access to section of river running through North Adams and Williamstown • Walking trails from Linear Park, Williamstown	• Some areas with trash and large dumped items, such as shopping carts	• Potential cleanup spots with many shopping carts and large trash items such as a box spring

Section 7: Green River Confluence to Hemlock Brook Confluence

Surveyors: Jake Laughner, Celeste Venolia, Julieanne Fontana

Significant Tributaries: Green River, Hemlock Brook
Access Points: Ashton Ave and Lauren's Launch canoe launch site
Access Method Used: Canoe

Overview: This section was fairly similar to the Ashton Ave to Green River section, though with added width from the Green River. The main stream flow was blocked by trees in two areas and not navigable. Again, knotweed presence was heavy. Nearby land use was similar, though also included Cole Field consisting of soccer, football, and baseball fields. Also, wastewater treatment plant outflow adds water at the end of the stretch, but no significant change to water appearance was noted. Aquatic life seen include minnows about ¾ inch and American toads at the Green River confluence. Also viewed were kingfishers and animal tracks in the mud, possibly from a raccoon or other medium sized mammal. Eight outflow pipes were noted, with one pipe that requires follow-up action. It had a slight sewer gas odor and was surrounded by a containment boom.

Bank erosion

Natural Resource and Assets	Problems	Priority Actions
• Access to Linear Park in beginning of stretch • Some trails along river by Cole Field • Wildlife	• Bank erosion • Incremental rip-rapping	• Red-brown seepage from soil upstream of Cole Ave on left bank • Pipe with slight sewer gas odor downstream of Cole Ave on right bank (See Priority Action for Immediate Attention section for both) • Consider trimming trees

Section 8: Hemlock Brook Confluence to Pownal Tannery Dam

Surveyors: Jake Laughner, Celeste Venolia Julieanne Fontana

Significant Tributaries: Broad Brook
Access Points: Clayton Park canoe access
Access Method Used: Canoe

Overview: This stretch was shallow in the beginning with gravels and cobbles and became deeper and more silted as it approached the Pownal Dam. The river starts out as meandering and becomes occasionally braided as it widens. From the middle to the end of the section, the railroad runs along the river. Inch-long minnows were abundant; aquatic insects, frogs, snails, and crayfish were all observed. A large beaver jumped into the river from the right bank next to the railroad tracks just before the end of the section. Birds seen included kingfishers, common merganser with six to eight young sandpipers, abundant catbirds, and cedar waxwings. Many small tributaries enter along this section. Run-off, potentially from roads and farmland, is present, though not common. Also, there are a few areas of erosion and steep slopes.

Natural Resource and Assets	Problems	Priority Actions
• Wildlife • Natural stream bed • Hemlock corridor by Hopkins Forest	•	• Clean-up of cement ramp and pipe section • Tributary crossing on Swallow Hill Road has large drop and erosion underneath - poor passage for fish and aquatic life

Section 9: Pownal Tannery Dam to Little Hoosic Confluence

Surveyors: Jake Laughner, Celeste Venolia Julieanne Fontana

Significant Tributaries: Little Hoosic River
Access Points: Strobridge Recreation Complex, North Pownal
Access Method Used: Canoe

Pownal Tannery Dam

Overview: This section has a steeper grade than previous sections, with a short Class 2 rapid in normal water conditions. Cobbles and silt make up the streambed, with silt accumulation and goose droppings near tributary entrances. Erosion was present in some areas and run-off from roads, bridges, and fields entered the river. After the Tannery Dam, there was no longer knotweed invasion and the water had a slight greenish color. According to a local resident, the area downstream of the dam used to be a popular area for fishing trout, but no longer after a wastewater treatment plant spill. There was also one navigation hazard where concrete sections blocked the main flow of the stream.

Natural Resource and Assets	Problems	Priority Actions
•	• Tree blocking river passage • Bank erosion • Previous wastewater treatment plant spill	• Concrete blocks (see Priority Action for Immediate Attention section)

Section 10: Little Hoosic Confluence to Hoosick Falls Chutes

Surveyors: Jake Laughner, Celeste Venolia, Julieanne Fontana

Significant Tributaries: Little Hoosick River, Brown's Brook
Access Points: Rock Cut, Hoosick, NY canoe access
Access Method Used: Canoe

Overview: The streambed was made of cobbles and silt with generally less than 1-foot water depth in low water conditions. The meandering stream is characterized by bank erosion with bank wallow nests. There were two main areas where the nests were observed, one with swallows nearby and one deserted. The section also had brownish algae growing on rocks, and run-off from lawns, roads, bridges, and plowed fields. Towards the end of the section, there is a beach with informal access for swimming, fishing, and potentially launching a canoe. The rest of the land along the river was used for agricultural purposes, roads, and a railroad on the right bank. Wildlife observed includes 4-inch fish, crayfish, a deer, and a muskrat. Birds include Great Blue Herons and smaller heron species, kingfishers, bank swallows, Common Yellowthroats, catbirds, Killdeer, sandpipers, a red tailed hawk, and a bald eagle.

Natural Resource and Assets	Problems	Priority Actions
• Brown trout fishery	• Leaking flood control gate at end of stretch • Concrete ripped and eroded on left bank next to Rt. 22 • Navigational hazard of fallen trees	• Excavator (See Priority Action for Immediate Attention section) • Beach with trash (common area for fishing brown trout)

Section 11: Hoosick Falls Chutes to Buskirk Bridge

Significant Tributaries: Walloomsac River. Owl Kill, Little White Creek
Access Points: Rock Cut, Treatment Plant
Access Method Used: This section was not accessible, as the water level was too low to canoe.

Overview: This stretch of river is undeveloped, with a history of agricultural and railroad land use. Past the entrance of the Walloomsac there is a Class II rapid.

Section 12: Buskirk Bridge to Johnsonville Dam

Surveyors: Jake Laughner, Celeste Venolia Julieanne Fontana

Significant Tributaries: Nipmoose Brook
Access Points: Buskirk Bridge Access, access on greenway
Access Method Used: Canoe

Overview: Due to the Johnsonville Dam, this section is almost still and more than 3 feet deep. It has a low gradient with intact banks, cloudy water, and many lily pads in the slowest moving sections. Wildlife observed includes aquatic insects, herons, kingfishers, great egrets, and swallows. There was little human impact observed, though trash was found on an informal beach and a few motorboat docks were seen.

Lily pads just upstream of Johnsonville Dam

Natural Resource and Assets	Problems	Priority Actions
•	• Confusing take-out location on Hoosic map: County Road 111, under railroad tracks, turn right on River Road	•

Section 13: Johnsonville Dam to Confluence with Hudson River

Distance: About 14 miles **Significant Tributaries:** Wampecock Creek, Tomhannock Creek **Access Points:** Canoe access at Johnsonville, NY; Schaghticoke Dam; Powerstation Road, Schaghticoke, NY **Access Method Used:** Did not observe this section due to low water conditions.
Overview: Past the Johnsonville Dam, the Hoosic River is generally wide and shallow with deeper sections upstream of the Valley Falls and Schaghticoke dams. Between impoundments, remnant dams, rapids, and large rocks characterize the river. Past the second dam, one finds riffles and high banks surrounded predominantly by farmland.