

Pennypack Stream Visual Assessment

Streambank assessments provide the public with an opportunity to participate and learn about the problems in the stream first-hand and about those sections of the stream that are in good shape and those that need further protection. Also, these assessments assist with prioritizing the locations of restoration projects once the plan is completed. Lastly, they will provide a baseline (a snapshot of existing conditions) that can be used to measure where efforts have improved conditions or whether there is a need to adopt different strategies for improvement.

Members of the community and local organizations conducted the visual assessments of the main stem beginning at the headwaters in Horsham Township and ending at the Delaware River. In the fall of 2004, volunteers were trained in conducting stream assessments, divided into smaller groups, and assigned a stream segment. The assessment form was used to record and document the conditions observed at the time of the assessments. Photographs were taken to document the conditions and then linked to the general location on a map of the area. The level of description for each segment will vary due to the differences in individual interpretation and background and skill of the volunteers.

The assessments are broken down into thirteen segments in the upper Montgomery and Bucks Counties and ten segments in the City of Philadelphia.

Upper Montgomery and Bucks County regions of Pennypack Stream

Eight of the thirteen segments had limited access and assessments had to be conducted from either overpasses or bridges, which leaves a large segment of the upper region undocumented.

Witmer & Coach Roads

Visibility from the road was 50 yards up and 50 yards downstream. The width of the stream was approximately eight feet and was fully shaded. The depth of the water in this unchannelized segment was 6 inches to 1 foot and appeared clear and no odors were detected. The stream bottom was composed of rocks with brown algae visible everywhere. There was an absence of fish and wildlife in this area. Eighty percent of this segment was run and twenty percent was pool.

The stream had an average buffer of trees, plants, rocks, and logs. Some streambank erosion was documented and the height of the bank went from stream-level to 3 feet. This is a residential area and The Settlement Day Camp was in close proximity.

A moderate amount of trash was noted, such as, bottles, cans, Styrofoam, and woody debris. Thorn bushes surrounded the stream and the invasive plant, Honeysuckle, was evident.

Recommendations:

- Remove invasives
- Investigate cause of algae
- Conduct a clean-up

Sawyers Way

The upstream segment was done from the Sawyers Way overpass for a distance of a quarter mile. The downstream segment was walked for half a mile.

The water was clear and no odor was detected in this unchannelized segment. The depth of the water was 6 inches to 2 feet and was equally riffle and run. The stream bottom was composed of rocks, gravel, and sand. Dark green and brown algae were present in spots and attached to rocks. The width of the stream was 6 to 25 feet (where the stream divided into three segments and re-joined 50 feet further downstream). A stormwater outfall was noted while looking upstream from the overpass.

The height of the streambank was 2 feet with almost no signs of erosion. The streambank was partially shaded and the invasive plant, Tree of heaven, was noted in some areas. There was little to no trash seen at this segment and the surrounding area was all residential.

There was an abundant amount of wildlife at this segment, including three deer (two bucks and one doe), ducks, birds, and one large iguana (possibly an escaped house pet).

Recommendations:

- Investigate the cause of algae

404 Dresher Road

There is no access to the stream for this segment. The assessment was done from the Dresher Road overpass.

The Dresher Road overpass was under construction at the time of the assessment and large slabs of concrete were everywhere. Other types of debris seen were plastic bags, tires, an ironing board, and plywood.

The stream was clear and no odor was present. Rocks and sand made up the stream bottom with brown algae present in spots and attached to rocks.

The stream width was approximately 15 feet and the water was 6 inches deep. This segment is not channelized and about 70 percent run. The streambank height was 1 to 4 feet and erosion was prevalent.

The left streambank was moderately covered but the right streambank was less than 30 percent covered by trees, plants, rocks, or logs.

There is a stormwater outfall on the left bank with no odor detected. The common land uses are residential and commercial. Other construction work was taking place downstream.

Recommendations:

- Restore stream banks
- Contact construction company regarding clean-up of concrete slabs
- Conduct a clean-up of trash

Blair Mill Road

The upstream segment was assessed from Horsham Park, where there is a small playground, for one half mile. The lower segment was difficult to access, but one half mile was completed.

There is minimum vegetative streambank coverage. A brown algae was seen attached to the rocks. The stream bottom composition was made up of rocks, gravel, sand, and silt.

The water was clear and 4 inches to 1 foot deep with one fish species moderately abundant. The width of the stream was 10 to 25 feet and the streambank was stream level to 2 feet high. Major streambank erosion was present with signs of some restoration on the right bank. One stormwater outfall was noted.

The land uses were residential and park/playground. Trash was abundant and consisted of bottles, plastic bags, shopping carts, tires, home fences, woody debris, and BFI trash cans. There was a silt island with a stagnant pool that was green and bubbling and emanated an awful odor. There were also signs of dumping behind Horsham Road's residential area.

Recommendations:

- Restore stream banks

- Educate local residents on the environmental implications of illegal dumping
- Erect a barricade to deter illegal dumping
- Investigate stagnant pool and rectify
- Conduct a major trash clean-up

Old York Road

This segment was assessed from the Old York Road overpass and Fulmore Road. Visibility was approximately one half mile, looking up and downstream.

The land uses for this segment were comprised of a cemetery with a memorial garden and businesses such as an auto dealer, cleaners, and print shops. It appears that there are no local uses of the stream.

It is not channelized and it is 95 percent run with a water depth of 3 inches to 1 foot deep. The width of the stream is 25 feet with a streambank 10 feet in height. It is fully exposed to the sun and had minimal coverage of vegetation such as trees, plants, rocks, and logs but this segment shows no signs of bank erosion. It appears that vegetation is being cut down. Some stream bank stabilization was done on the right bank, looking downstream.

There were two stormwater outfalls under the overpass as well as a cement walkway. A rock island was noted looking downstream towards Warminster Avenue.

The water was clear with no discernable odor and no fish or wildlife were present. A brown algae was seen in spots and the stream bottom was mainly gravel and sand. No trash was seen on this day.

Recommendations:

- Locate person or agency that is cutting down the vegetation
- Educate said person on environmental implications of barren streambanks
- Plant native species

Warminster Avenue

This segment was done from the Warminster Avenue overpass. Visibility was approximately 100 yards upstream and 200 yards downstream.

There are 5 stormwater outfalls in this segment. Two upstream (one collecting run-off from a parking lot) and three downstream.

The land use is residential and The Bonnet Lane Plaza is in close proximity. Trash such as bottles, cans, plastic bags, and paper were noted.

The streambank was 2 to 5 feet high and some streambank erosion was occurring. The streambank and outlying area were fully exposed to sunlight and had no vegetative covering. The width of the stream was 13 feet and the water was 2 to 6 inches. The water was clear and odor free. Long strips of brown algae covered the bottom of the stream and some rocks. No fish or wildlife were present.

Recommendations:

- Plant native vegetation
- Stabilize streambanks before more erosion occurs

Davisville Road

This segment was assessed from the Davisville Road Bridge, looking 100 feet up and 100 feet downstream.

This area was partly shaded and had a good coverage of vegetation going back to the residential area which is about 25 feet back from the stream. Some streambank erosion was seen by the garden supply and masonry store, but there was evidence of stream restoration in the residential area.

The water was stagnant and foamy with a slight film on top and a sewage smell was present. Bottles, can, plastic bags, and paper were moderately abundant. The stream bottom was composed of gravel and sand with no algae present. One fish species was moderately abundant with no other wildlife seen.

This stream segment was 6 feet wide with a 5 foot streambank and the water was about 10 inches deep. It was not channelized and was about 80 percent riffle.

Recommendations:

- Investigate previously completed restoration work
- Involve residents in a trash clean-up
- Educate residents on environmental benefits of not mowing to the stream's edge

Pennypack Road to Mason's Mill Road

This 2 mile segment of the stream started at Pennypack Road and extended to Mason's Mill Road.

The water was clear but a chemical odor permeated the area. The depth of the stream was 2 inches to 4 feet with a composition of gravel, sand, and wood debris. Brown algae was present everywhere and no fish were seen through the whole segment.

This unchannelized, meandering stream segment was fully shaded and had abundant vegetative coverage. The stream bank was 4 feet high and showed signs of extreme erosion on both banks.

A log dam and a rock dam were noted approximately one quarter of the way into the park. A culvert located under the asphalt path had a very foul odor coming from it. Trash was moderately abundant and consisted of bottles, cans, plastic bags, paper, a tire, and a shopping cart.

This area is residential and also the site for the Pennypack Ecological Trust.

Recommendations:

- Restore the eroded streambanks
- Conduct regular trash clean-ups
- Create an open communication with Ecological Trust
- Locate cause of smell in the stream as well as the culvert

Mason's Mill Road to Edgehill Road

This segment began at Mason's Mill Road and ended at Edgehill Road for a total length of 1.3 miles.

This parkland area is part of the Ecological Trust and is used by local residents for fishing and hiking along the Weber Trail. There are benches, a historical stone storage house (padlocked), and a small boardwalk over the marshland along this trail. The surrounding area is residential with a mall and railroad tracks adjacent to it.

There was an abundant amount of trash consisting of bottles, cans, paper, plastic bags, a plastic chair, and car parts/seats/and tires.

The stream was approximately 15 feet wide, 6 inches to 8 feet deep and the water was clear. The composition of the stream bottom was gravel, sand, and boulders. Several rocks had white tips indicating the possibility of calcium deposits. The Creek Road

Bridge crosses the stream and the flow of the water was slowed by a dam of woody debris.

The streambank was 3 feet high and erosion appeared to be a major problem. There is heavy vegetative coverage consisting of Pine trees and the invasive, Japanese knotweed.

Recommendations:

- Conduct trash removal
- Restore stream banks
- Remove invasives and replant with native species
- Create an open communication with The Ecological Trust

Edgehill Road to Fetter's Mill Road

There was limited access to this segment of the stream. The assessment was done from Edgehill Road and visibility was approximately one quarter mile up stream and downstream.

The water was clear and no odor was detected. The stream bottom was composed of sand and rocks and there was a sand island in the center. Brown and dark green algae were attached to rocks. The depth of the stream was 2 inches to 8 feet and was 25 feet wide.

The streambank was 2 to 3 feet high and showed little signs of erosion. The right bank was fully shaded and had good vegetative coverage. The left bank had little to no coverage.

The surrounding area is residential and there were no signs of invasive species or trash. There was also no fish or wildlife in this area.

Recommendations:

- Plant native species on the left bank

Fetter's Mill Road

There was no access to this segment so the assessment was completed from Fetter's Mill Road Bridge. This is a narrow bridge with a lot of traffic. Visibility was approximately 100 yards up and downstream.

This area is residential. An old farmhouse is located next to the stream on the left bank. There is a small post office with a parking lot on the south side of the bridge.

The water was clear and no odor was detected. The stream was 20 feet wide and was equal parts riffle and run. A white foam was noticed on top of the water. The streambed was made up of gravel, boulders, and an abundant amount of sand. Trash and algae were absent. No fish were noted, but a few ducks were swimming about in this segment of the stream.

There was some streambank erosion and a wall is collapsing into the water at the farmhouse location. The streambank had very good vegetative coverage (except for the farmhouse location) and no invasive species were viewed.

Recommendations:

- Restore eroded streambanks
- Investigate restoration of collapsing wall
- Educate farmhouse resident(s) about the environmental benefits of not mowing to the stream's edge

Old Welsh Road

The assessment was done from the Old Welsh Road Bridge. Visibility was approximately one quarter mile up and downstream.

The water was clear and no odor was detected. The depth of the stream was 3 inches to 1 foot and the width was 10 to 25 feet. Gravel and silt made up the stream bottom and no algae was noted. A silt island has developed at this segment. There were three species of fish spotted and ducks were swimming by the bridge.

The streambank was 3 to 7 feet high with little erosion. There was less than 30 percent vegetative coverage and the surrounding area housed the Gloria Dei Towers, Philadelphia Suburban Water, and a car wash business. There was very little trash seen on this day.

A concrete dam stretching across the stream had a 2 foot break in it where the water gets through. Further upstream from the dam is a railroad bridge. There was an exposed pipe running under the bridge and a stormwater outfall pipe coming from the road.

Recommendations:

- Research cause of silt island
- Investigate exposed pipe

Old Huntingdon Pike to Pine Road

This segment started at Old Huntingdon Pike and extended approximately three quarters of a mile to Pine Road and runs through Lorimer Park. Private restoration projects are being implemented throughout this segment by Montgomery County's Trout Unlimited and local volunteers. This segment was divided into two sections because of impassable vegetated areas. Each section will be reported on separately due to the difference in assessments.

Old Huntingdon Pike to Turtle Rock

This parkland area is used locally for fishing and other recreational purposes. It is characterized by a number of man-made "problems." An old mill dam, just upstream from Old Huntingdon Pike, has started to deteriorate. It was difficult to assess damage to the dam because the water was flowing freely over the dam due to recent heavy rains. Also, the Old Huntingdon Pike bridge is very old and in danger of falling down.

The water color was brown and appeared milky and foamy with a chemical odor present. The composition of the stream bottom was gravel and sand and there was no evidence of algae. There were no signs of fish or any other wildlife. The stream was 50 to 60 feet wide with a water depth of 18 to 24 inches. There was partial channeling above the bridge and 25 to 50 percent of this stream segment was shaded.

The streambank was 3 to 4 feet high and showed significant signs of erosion below the dam, around the Old Huntingdon Pike Bridge, and at various points below the bridge.

The dominant tree species were Sycamore, Pine, and Oak. Thick vegetation and abundant amounts of invasive species, such as Multiflora rose, Japanese knotweed, Oriental bittersweet, Japanese honeysuckle, and Kudzu, made some areas impassable.

A dam of woody debris accumulated at the bridge and acted as a dam during recent flooding which caused serious bank erosion on the north bank. Besides woody debris, trash was abundant and consisted of bottles, cans, plastic bags, paper, tires, and a water heater. There were stormwater pipes discharging into the water but no odor was detected.

*Trout Unlimited has applied for a Growing Greener Grant to fund the removal of the old mill dam

*Old Huntingdon Pike Bridge is to be removed by the Township in the summer of 2005

Turtle Rock to Pine Road

This parkland area is used locally for recreational purposes, such as fishing, hiking, horseback riding, and for picnics. Lorimer Park is on the upper end and Fox Chase Farms is on the lower end.

The water color was brown and appeared milky with no odor present. The composition of the stream bottom was made up of gravel and sand, and no algae were present. Fish and other wildlife were absent. The stream was 60 to 80 feet wide with a water depth of 18 to 24 inches. This unchannelized segment was 25 to 50 percent shaded and 75 percent long slow pools.

The streambank was 3 to 4 feet high and had a significant amount of erosion primarily on the left bank of the stream. The left bank riparian buffer appeared healthy perhaps because it is in an undeveloped area. The right bank had a good riparian buffer 25 to 30 feet off the stream, but the “day use” area and walking trails limit the buffer beyond that. These areas also cause run-off problems. Exposed sand bars were also noted.

Sycamore, Pine, and Oaks were the dominant tree species. In many areas the buffer was composed mostly of invasive species – primarily Multiflora rose, but also Japanese knotweed and Japanese honeysuckle. There was some woody debris but other trash was absent.

A number of stormwater outfalls were encountered and it appeared that a sewer line was running next to the creek since manhole covers were observed.

Recommendations:

- Investigate cause of chemical smell in upper region
- Conduct a major trash cleanup
- Restore stream banks
- Remove invasive species and re-plant native species
- Work with Trout Unlimited’s restoration projects

Philadelphia Sections **Pine Road to Verree Road**

This segment of the stream starts at Pine Road and extends approximately 1 mile to Verree Road.

This assessment was done on a beautiful, sunny fall day. This area is parkland and residential. Local uses were recreational activities such as fishing and hiking. The water was clear and 1 to 3 feet deep with no odor present. The stream bottom consisted of silt, sand, gravel, and boulders. A dark green algae was present in spots and attached to rocks. Fish were moderately abundant, but only one species, suckers, was noted. Other wildlife seen included ducks, Canadian geese, white geese, squirrels, a cat, deer and raccoon tracks were visible.

From the stream edge to 100 feet from the stream, the left bank was 30 to 70 percent covered by vegetation and the right bank was 70 to 100 percent covered by vegetation. The stream was 30 to 40 feet wide with a streambank going from non-existent to 10 feet high. There was evidence of erosion and flooding throughout the entire segment with severe erosion at the curve of the stream (approximately mid-point of the segment). This unchannelized segment was 60 percent run with equal parts riffle and pool.

There was one dam with water cascading over the middle section and woody debris and fallen trees were seen. Trash was moderately abundant and consisted of bottles, cans, paper, plastic bags, concrete, fence posts, and spray paint cans. Some of the dominant trees species were maple, birch, tulip, and oak. Invasive species in this segment were Japanese knotweed (abundant), Kudzu, and Tree of heaven. There was one manhole near the Pine Road entrance.

Recommendations:

- Restore streambanks where there is erosion
- Remove invasives and replace with native plants
- Conduct regular trash clean-ups
- Investigate manhole

Verree Road to Krewstown Road

This segment begins at Verree Road and extends to Krewstown Road. Due to the amount of area to be covered this assessment was broken down into two segments, Verree Road to the small wooden bridge (1 mile) and from the small wooden bridge to Krewstown Road (1 mile).

Verree Road to small wooden bridge (1 mile into the park)

The water was mostly clear but had some foamy spots and appeared green further downstream. No odor was detected. The depth of the stream was 1 to 4 feet. The composition of the stream bottom was sand, silt, gravel, rocks, and boulders. Some light green and orange algae were present in spots and attached to rocks in the area closer to Verree Road. There were no fish, amphibians, reptiles, or other wildlife seen on this day. This segment is riffle and run with no pooling.

There was good vegetative coverage from the bank to 100 feet back from the stream, but the stream had very little shading. The dominant tree and shrub species were beech, black locust, black cherry, ash, arrowhead, slippery elm, sycamore, spice bush, tulip tree, box elder, pignut hickory, and hornbeam. The invasives Bittersweet, Privet, Multiflora rose, and Japanese knotweed were noted.

The streambank went from 5 to 10 feet and showed major signs of erosion, exposed tree roots, and flooding. There was a moderately abundant amount of trash consisting of bottles, cans, paper, and plastic bags. This area is parkland and is used for recreation and fishing.

Recommendations:

- Repair streambank where there are exposed roots
- Conduct regular trash clean-ups
- Remove invasives and replace with native plants

From small wooden bridge to Krewstown Road

The water was clear and no odor was present. The stream depth was a few inches to a few feet in pooled areas and was approximately 30 to 50 feet wide.

The streambank height varied from 6 to 30 feet because of a deep valley area. There was good vegetative coverage of shrubs, elms, and beech trees from the streambank to 100 feet from the stream. The invasive, Japanese Knotweed, covered about 50 percent of the streambank. Garlic mustard and Tree of heaven were also noted. Asphalt bike/hiking paths also parallel both banks. Both sides of the stream showed evidence of severe erosion – exposed tree roots, high vertical banks, and many sediment bars. The stream was not channelized but some sections of the west bank were bouldered and one section had a gabioned wall. Erosion control netting was used along the trail in the steep areas.

There was evidence of past “over the banks” flooding. A lot of natural debris was piled up along banks and paths. The presence of trash was minor. There were no signs of pipes emptying into the stream but there were culverts carrying small tributaries to the

stream. An interceptor sewer runs along the west bank and there are exposed manholes along the trail.

Fish were moderately abundant with two or three species seen. Other wildlife consisted of tadpoles, Canadian geese, Mallard ducks, cardinals, and the call of bullfrogs.

The land use is 90 percent parkland, 5 percent parking lot, and 5 percent asphalt paths. The local uses are drinking water supply and recreational activities such as fishing, walking, hiking, biking, jogging, and kids playing in the stream.

Recommendations:

- Implement urban stormwater controls
- Restore streambanks where there is severe erosion
- Remove invasives and replace with native plants

Krewstown Road to Bustleton Avenue

This segment starts at Krewstown Road and extends a half of a mile to Bustleton Avenue.

This area is parkland and is used for recreational activities such as walking, biking, horseback riding, and fishing. It is stocked by the PA Fish & Boat Commission.

The water was clear with no odor present and a depth of 15 to 18 inches. The stream bottom was made up of sand, silt, and gravel. Some light green algae was present in spots. There was an absence of fish and other wildlife.

There was generally a good riparian buffer. The only limiting factor was a paved path that follows the stream on the east side. The streambank was 3 to 4 feet high with little erosion but some exposed “beaches” were noted. Seventy-five percent of this segment was pooled water. Oaks and Sycamores were the primary trees and the invasive Japanese knotweed covered 20 percent of the area between the path and the bank.

This segment was not channelized but there was some limited channelization with gabion baskets and a rock wall.

The Krewstown Bridge crosses the stream and several storm drains empty directly onto the ground near the stream. There was also a large log jam at this site which could cause problems in high water conditions.

Along with woody debris, bottles, cans, paper, and plastic bags were abundant.

Recommendations:

- Remove log jam at Krewstown Road Bridge
- Conduct regular trash clean-ups
- Remove Japanese knotweed and replace with native plants

Bustleton Avenue to Roosevelt Boulevard

This segment starts at Bustleton Avenue and extends approximately a half mile to Roosevelt Boulevard.

The water appeared brown and no odor was detected. Depth was undeterminable due to the color of the water. The stream bottom was made up of gravel and silt (silt islands). A dark green algae was attached to the rocks. Fish, amphibians, reptiles, and other wildlife were absent.

This unchannelized stream segment was approximately 35 feet wide with an 8 foot streambank. Severe erosion with exposed tree roots was noted. From the stream edge to 25 feet from the stream the bank was 30 to 70 percent covered with vegetation. Twenty-five to 100 feet back from the stream was 70 to 100 percent covered with vegetation. There were no trees, shrubs, or invasive species noted due to the season (winter) the assessment was done.

The land uses are parkland and residential and is locally used for hiking, dog walking, and horseback riding.

Pipes were noted near the stream but no discharge was seen. Woody debris and fallen trees acted as barriers in the stream. Trash was moderately abundant and consisted of bottles, cans, and plastic bags. A raised manhole was on the streambank towards Roosevelt Boulevard.

Recommendations:

- Restore streambanks where there are exposed roots
- Plant native trees and shrubs close to the stream
- Investigate cause of silt island
- Conduct regular trash clean-ups

Roosevelt Boulevard to Rhawn Street

This segment of the stream starts at Roosevelt Boulevard and extends one mile to Rhawn Street.

The water was clear but muddied from the previous day of rain. The stream bottom consisted of sand, gravel, and boulders. No algae or odor were present. A few small fish were seen as well as a blue heron, crows, robins, ducks, chipmunks, butterflies, and dragonflies.

This unchannelized segment was approximately 30 feet wide, 6 inches to 3 feet deep, partially shaded, and was 70 percent run, 25 percent riffle and 5 percent pool. The streambank was 1 to 8 feet high and was 100 percent covered by vegetation from the streambank to 100 feet back from the stream. There is slight streambank erosion along the entire segment. The invasives, Japanese knotweed and Tree of heaven, were observed everywhere.

The most common land use is parkland with some adjacent residential properties. The local uses are hiking, biking, dog walking, and fishing. There was an absence of trash and only one downed tree in the stream. There were signs of the stream washing over the bank. One manhole was noted dangerously close to the stream.

A paved path ran along this whole segment but there was no road access to it. There were also distance marker signs, benches, and well-kept trash cans.

Recommendations:

- Repair streambank before serious erosion occurs
- Remove invasive plants and replace with native plants
- Investigate and secure manhole
- Post signs about the importance of cleaning up dog waste

Rhawn Street to Welsh Road

This segment of the stream starts at Rhawn Street and extends a mile and a half to Welsh Road.

The water was slightly milky, had no odor, and was 1 inch to 5 feet deep. The stream composition was sand, silt, gravel, and boulders. Dark green and brown algae were attached to rocks and matted on the stream bed. There were no fish, amphibians, reptiles, or other wildlife visible.

This unchannelized segment was fully exposed to the sun. The area from the streambank to 100 feet back was 30 to 70 percent covered with vegetation. The stream was 20 to 30 feet wide and 7 to 10 feet high. There were signs of severe bank erosion throughout the whole segment. The invasive species Multiflora rose, White mulberry, and Japanese knotweed were abundant.

This segment is parkland and residential. It is used for recreational purposes such as hiking and biking. Bridges and woody debris acted as barriers in the stream.

Trash was abundant and consisted of bottles, cans, paper, and shopping carts. There were six drainage pipes along this segment with no discharge visible. One manhole and a sewage grate (near Welsh Road) were also noted, as were sand islands throughout this segment.

Recommendations:

- Restore streambanks where there is erosion
- Find cause and cure for sand islands
- Conduct regular trash clean-ups
- Remove woody debris barriers
- Remove invasives and replant with native species

Welsh Road to Frankford Avenue

This segment starts at Welsh Road and extends 2 miles to Frankford Ave.

The water appeared clear, foamy, green, and cloudy (at different sections) and a rotting garbage/sewage smell permeated certain areas (Welsh Road). The water's depth was 6 inches to 4 feet and was 60 percent run. The stream bottom consisted of sand, silt, and bedrock. A dark green algae was attached to rocks and matted on the streambed. There was no sign of fish or other wildlife.

The streambank was partially exposed to the sun and was 30 to 70 percent covered with vegetation from the stream to 25 feet back from the stream. The stream was approximately 50 feet wide and the bank was stream level to 6 feet (some places it was much steeper) with significant erosion especially around mid-reach. The invasives Japanese knotweed, Multiflora rose, and Tree of heaven were everywhere – completely covering some areas.

This segment is parkland and residential and is used for hiking, biking, walking, and stormwater drainage. Bridges, woody debris, and a sewer pipe acted as barriers in the stream.

There was an old iron pipe visible near Welsh Road (area of strong sewage smell) and a stormwater pipe near Frankford Avenue. There was also a wall along the stream at Frankford Avenue and remnants of an old dam slightly upstream from that.

Trash was moderately abundant and consisted of bottles, cans, paper, plastic bags, bike parts, tires, and a park bench. Yard waste was visible at Welsh Road.

Recommendations:

- Investigate sewage smell near Welsh Road
- Repair areas with streambank erosion
- Remove invasive species and replant with native species
- Remove woody debris and remnants of old dam
- Conduct regular trash clean-ups

Frankford Avenue to Torresdale Avenue

This segment starts at Frankford Avenue and extends a half mile to Torresdale Avenue.

The water appeared clear upstream with a slight sewage smell and green and muddy downstream. The stream bottom consisted of sand, gravel, and boulders and was approximately 3 feet deep. A brown algae was present in spots. There were no signs of fish or other wildlife on the day of the assessment.

The stream was 50 feet wide and the streambank was 3 feet high (very steep in some areas) with trees leaning towards the stream and some exposed roots. This partially shaded area was less than 30 percent covered with vegetation 25 to 100 feet back from the stream's edge. Beech trees were dominant and the invasive species White mulberry, Purple loosestrife, and Tree of heaven were noted.

The land uses were parkland, a horse stable, residential, and industrial, and the local uses were recreational and stormwater drainage. There were four CSO pipes in separate areas with no discharge or odor present. Bridges and woody debris acted as barriers in the stream. Trash was moderately abundant and consisted of bottles, cans, plastic bags, paper, tires, a trash can, and a traffic cone. There were signs of recent flooding.

Recommendations:

- Speak with the stable owner about stormwater management
- Repair streambanks where there is exposed roots
- Remove invasives and replant with native species
- Remove woody debris
- Conduct regular trash clean-ups

Torresdale Avenue to State Road

This segment starts at Torresdale Avenue and extends a half mile to State Road.

The water was foamy, muddy, and green throughout this segment and also oily downstream. A sewage or a decaying algae smell was present. This segment was 3 feet deep and 100 percent pool. The stream bottom consisted of sand, bedrock, and boulders with a dark green floating algae. A few small fish were seen downstream and no other wildlife was present.

The stream was 90 feet wide and the streambank was 2 to 3 feet high (some steep banks) with exposed tree roots indicating erosion. There was 30 to 70 percent vegetation from the stream edge to 25 feet from the stream's edge. The invasives Japanese stilt grass, Japanese knotweed, Tree of heaven, and Sycamore maple were noted.

The common land use was parkland and residential and was used for recreational purposes. There is one CSO pipe with no discharge but an odor was present. A graffiti-covered railroad bridge went over the stream near State Road. Trash was abundant and consisted of bottles, cans, plastic bags, shopping carts, tires, and dog waste. There were signs of recent flooding and an abundant amount of sand on top of the streambank near Torresdale Ave.

Recommendations:

- Investigate sewage odor
- Investigate oil in water
- Remove invasives and replant with native species
- Conduct regular trash clean-ups
- Post signs about proper dog waste disposal