Sugar Notch Run sub-watershed Assessment

EPCAMR surveyed **6** stream segments in the Sugar Notch Run sub-watershed. They were labeled as **SNR 01-06** in the data tables and on the Solomon Creek Watershed Monitoring Map. The photo essay documents the entire length of the tributary and their unnamed tributaries and on occasion makes recommendations for future stream or habitat improvement projects or cleanups.

Photo : Looking downstream 200' below the confluence of Sugar Notch Run with the Solomon Creek Main Stem at one of the abandoned railroad bridges that was constructed in 1902.

Photo : The milky white precipitate from Sugar Notch Run can be seen combining with the Solomon Creek Main Stem

Photo : Sugar Notch Run below Carey's Patch surrounded by Japanese Knotweed and what EPCAMR believes to be an aluminum precipitate, sewage or phosphate contamination in the tributary; Further lab testing or E. Coli bacterial plating is recommended to find out what exactly what the precipitate on the stream bottom is consistent of

Photo : The milky white precipitate can be seen entering beneath the Ashley Street culvert before emptying into the Solomon Creek Main Stem

Photo : The milky white precipitate from Sugar Notch Run can be seen entering beneath the Ashley Street culvert before emptying into the Solomon Creek Main Stem

Photo : Sugar Notch Run below Carey's Patch and what EPCAMR believes to be an aluminum precipitate, sewage or phosphate contamination in the tributary; Further lab testing or E. Coli bacterial plating is recommended to find out what exactly what the precipitate on the stream bottom is consistent of; Ashley Street and the road culvert that carries Sugar Notch Run into the Main Stem of Solomon Creek can be seen in the distance

Photo : Sugar Notch Run below Carey's Patch and what EPCAMR believes to be an aluminum precipitate, sewage or phosphate contamination in the tributary; Minnows were present in this pool

Photo : Panoramic of Sugar Notch Run below Carey's Patch as it takes a bend along a natural sandstone outcropping along the left bank with some streambank erosion evident to the east of the photo

Photo : An ephemeral unnamed tributary coming into Sugar Notch Run below Carey's Patch surrounded by multi-flora rose

Photo : An iron seep coming into Sugar Notch Run below Carey's Patch from the left streambank that had minimal impact on the tributary

Photo : Two additional ephemeral tributaries emptying into Sugar Notch Run below Carey's Patch from the left streambank

Photo : A closer look at the white precipitate and almost filamentous algal like substance that was coating the stream bottom of Sugar Notch Run below Carey's Patch

Photo : A white precipitate and almost filamentous algal like substance that was coating the stream bottom of Sugar Notch Run below Carey's Patch

Photo : Dawson Hughes, EPCAMR Executive Director's son, a 6th grader at the time of the survey certified in AMD Monitoring and Macro Invertebrate Identification assisting with the assessment of Sugar Notch Run; Standing at the location of an old road and ATV crossing

Photo : Sugar Notch Run below Carey's Patch surrounded by Japanese Knotweed and what EPCAMR believes to be an aluminum precipitate, sewage or phosphate contamination in the tributary;

Photo : Sugar Notch Run below Carey's Patch in what seems to be the start of a transition area from a more clear iron impacted area to the white precipitate area that EPCAMR believes to be possibly aluminum hydroxide, sewage, or phosphate contamination

Photo : Sugar Notch Run flowing over a bedding plane outcrop in the middle of the tributary looking back towards below Carey's Patch

Photo : Sugar Notch Run flowing over downed woody debris dam in the middle of the tributary looking back towards below Carey's Patch

Photo : Sugar Notch Run flowing below Carey's Patch towards Ashley Street through the wood's locally known as "Dead End Creek" by the local youth that were encountered during our assessment

Photo : Sugar Notch Run flowing below Carey's Patch with a woody debris blockage in the stream that could easily be removed as a part of a restoration project

Photo : Sugar Notch Run flowing below Carey's Patch looking upstream towards Sively Street at a double-wide culvert

Photo : Sugar Notch Run flowing below Carey's Patch looking upstream towards Sively Street into the double-wide culvert full of debris that could easily be cleaned out as a part of a restoration project

Photo : Sugar Notch Run flowing below Carey's Patch looking upstream towards Sively Street alongside the double-wide culvert where an 18" corrugated stormwater pipe enters the tributary bringing in additional flows during rain events

Photo : Sugar Notch Run flowing below Carey's Patch looking downstream from Sively Street as the tributary flows into the woods locally known by youth as "Dead End Creek" standing on top of the double-wide culvert

Photo : Sugar Notch Run flowing through Carey's Patch towards known locally by youth as "Dead End Creek" at the corner of Sively Street

Photo : Sugar Notch Run flowing through Carey's Patch looking upstream through some private yards where the tributary has been modified and channelized heavily by residents probably to prevent further flooding incidents in their yards

Photo : Sugar Notch Run looking downstream from the other end of Carey's Patch through some private yards where the tributary has been modified and channelized heavily by residents probably to prevent further flooding incidents in their yards using gabion baskets and guiderails

Photo : Sugar Notch Run looking upstream from the other end of Carey's Patch through some private yards where the tributary has been modified and channelized heavily by residents probably to prevent further flooding incidents in their yards using railroad ties

Photo : 3 holed masonry brick submerged in AMD and filamentous algae in Sugar Notch Run

Photo : Constriction point on Sugar Notch Run with concrete retaining walls, railroad ties, and other home-made bank stabilization methods by residents entering Carey's Patch; AMD and filamentous algae present and predominant in the channel with no aquatic life

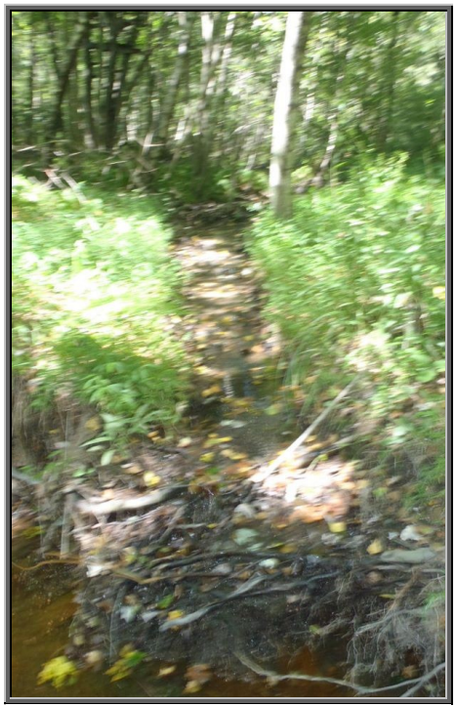


Photo : Unnamed feeder ephemeral tributary coming in on the left bank of Sugar Notch Run before reaching Carey's Patch

Photo : AMD in Sugar Notch Run before reaching Carey's Patch

Photo : AMD, shaley rock, and filamentous algae in Sugar Notch Run before reaching Carey's Patch

Photo : AMD, a gravel bar and fallen tree across Sugar Notch Run heading downstream towards Carey's Patch; The fallen tree could pose a future woody debris blockage and flooding concern for Carey's Patch and could easily be removed with a chainsaw as a part of a stream improvement project

Photo : Hundreds of dead earthworms along the stream bottom of Sugar Notch Run never seen before in an AMD impacted stream

(L) Photo : Iron hydroxide precipitate even more evident and in higher concentrations within Sugar Notch Run downstream

(R) Photo : Shaley outcrop on left bank and iron hydroxide present in great abundance

Photo : Meander in Sugar Notch Run following another shaley outcrop on the left streambank looking downstream towards Carey's Patch

Photo : Stormwater culvert or ephemeral unnamed tributary to Sugar Notch Run with rock apron on the left streambank coming off the Huber IV AML Reclamation Site completed by the Earth Conservancy

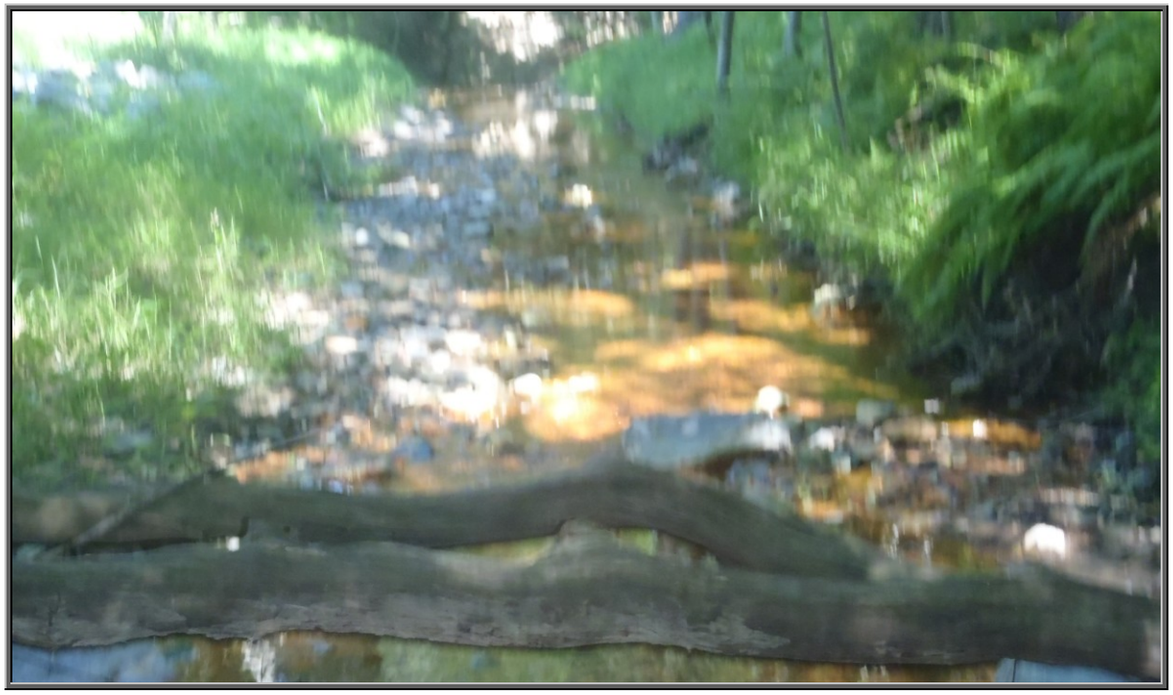


Photo : Sugar Notch Run just upstream of the Huber IV Reclamation stormwater culvert with some woody debris blockage across the channel

Photo : Shaley outcrop along the left streambank of Sugar Notch Run that was highly erodible and is the probable source of most of the shaley streambed further downstream before entering Carey's Patch

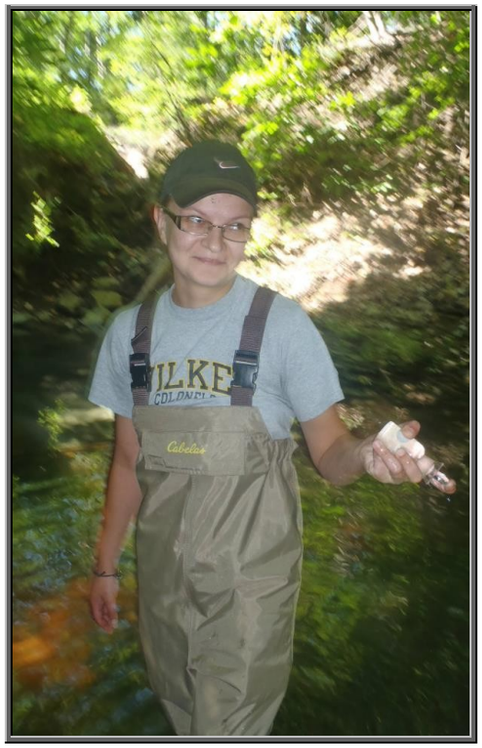
(L) Photo : Unnamed ephemeral tributary entering Sugar Notch Run along the right streambank heading towards Carey's Patch

(R) Photo : Unnamed ephemeral tributary entering Sugar Notch Run along the left streambank heading towards Carey's Patch

Photo : Presence of iron hydroxide becomes readily apparent within Sugar Notch Run within 100' downstream of the railroad tunnel from within the streambed itself with no apparent discharge locations in sight; Debris is littered throughout this reach

Photo : Several woody debris blockages within the stream corridor of Sugar Notch Run looking downstream; Easy removal of such blockages could occur as a part of a stream improvement project; AMD is not present in this short reach just beyond the railroad tunnel

Photo : Minor undercutting of the left bank of Sugar Notch Run probably due to flashy floods on Sugar Notch Run as stormwater scours the area downstream of the railroad tunnel



(L) Photo : Justyna Sacharzewska, EPCAMR Watershed Outreach and Education Intern samples the Dissolved Oxygen downstream of the railroad tunnel on Sugar Notch Run

(R) Photo : Shale outcrop along the left bank of Sugar Notch Run looking downstream of the railroad tunnel

(R) Photo : Rusted rails at the bottom of a 4’ deep pool with some iron precipitation on Sugar Notch Run just outside of the railroad tunnel

Photo : Hundreds of dead earthworms along the bottom of a 4’ pool in Sugar Notch Run just outside of the railroad tunnel

Photo : A sanitary sewer line manhole that is completely missing from this main line just beyond railroad tunnel; EPCAMR will recommend that a new lid be placed on it by either Ashley Borough or the WVSA

Photo : Looking upstream at the outlet of the railroad tunnel and the pool below it in Sugar Notch Run; The concrete structure to the left of the pool is an enclosed antiquated sewer line coming from Ashley Borough, near Preston

(L) Photo : Looking downstream on Sugar Notch Run at the outlet of the railroad tunnel and the pool below it; At this point, Sugar Notch Run is minimally impacted by AMD

(R) Photo : A look into a rusted drainage pipe built within the railroad tunnel sidewall

Photo: Old masonry meets new masonry work at the bend in the tunnel; Sugar Notch Run flows over wooden timbers on the left hand-side of the channel within the tunnel

Photo: Grout work touch ups at a bend in the railroad tunnel; Walking into the darkness

Photo: A second grouting of the original section of the railroad tunnel; Interesting mason work and keystone work on the arch; Justyna making her way through Sugar Notch Run and the tunnel looking upstream back towards the Preston section of Ashley Borough

Photo: Partially submerged sanitary sewer line running underneath the railroad tunnel inside the Sugar Notch Run streambed

Photo: Looking into the stone arch railroad tunnel crossing and one of the submerged Ashley sanitary sewer mains or WVSA main along with Sugar Notch Run flowing downstream behind the Preston section of Ashley Borough

Photo : Railroad siding on the verge of a collapse into Sugar Notch Run adjacent to the abandoned Huber Breaker Colliery Pump House; This area is in need of stabilization as a stream improvement project before the rails fall into Sugar Notch Run and block the railroad tunnel up

Photo : Iron works plumbing, conveyor scaffold support, and pump pipe main running from the Huber Breaker Colliery Pump House on the right over to a lateral that carried water to the Dorr Thickener and the Menzies Cones where the coal was "floated" and separated

(L) Photo : Two intake pipes along the foundation wall of the abandoned Huber Breaker Colliery Pump House along Sugar Notch Run

(R) Photo : One of the intake pipes along the foundation wall of the abandoned Huber Breaker Colliery Pump House along Sugar Notch Run partially submerged

Photo: The abandoned Huber Breaker Colliery Pump House along Sugar Notch Run

(L & R) Photos : Robert Hughes, EPCAMR Executive Director wading through a 5’ deep pool on Sugar Notch Run behind the Preston section of Ashley Borough

Photo : Looking downstream into a 5' scour pool at the end of the pipe on Sugar Notch Run behind the Preston section of Ashley Borough

Photo : Looking upstream into 5' corrugated pipe carrying Sugar Notch Run under an abandoned haul road behind the Preston section of Ashley Borough

Photo : Culvert blocked by woody debris, leaf packs, and two large pieces of plywood that could lead to future flooding problems if not removed; Sugar Notch Run flowing through the culvert downstream towards Carey's Patch; This potential flooding concern could be easily removed during a stream improvement project

Photo : Close up of the overflow area at the concrete dam on Sugar Notch Run; This dam should be recommended to be removed to allow for potential fish passage from upstream areas down through Sugar Notch Run as a stream improvement and habitat restoration project

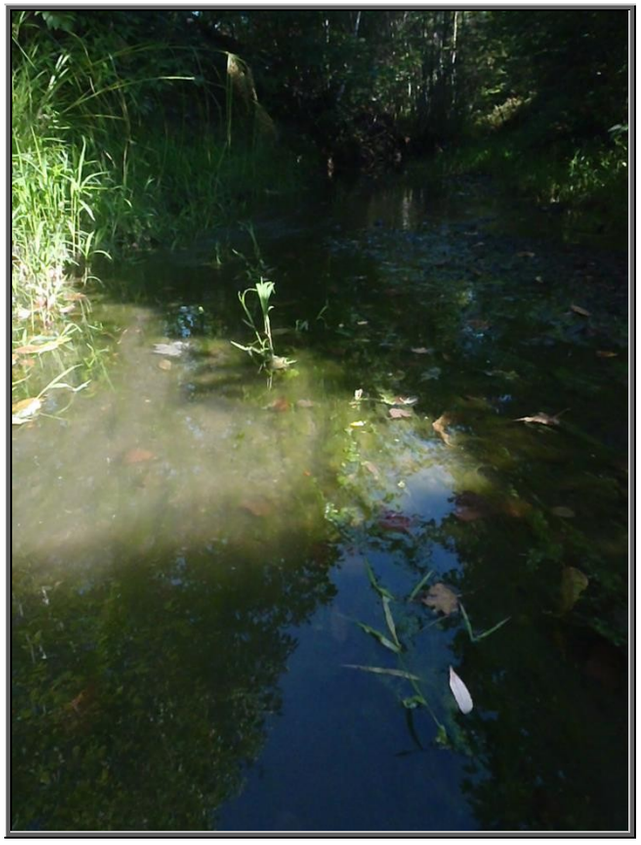
Photo : Looking upstream into Sugar Notch Run at the crack in the concrete dam; 12' in height; 4' pool below the dam; Justyna Sacharzewska, EPCAMR Watershed Outreach and Education Intern working her way around the dam

Photo : Old stone arch and corrugated steel culvert at the lower end of the concrete dam creating a ponding area along the wingwalls in Sugar Notch Run; Heavily sediment-laden and full of debris; This potential flooding concern could be easily removed during a stream improvement and habitat restoration improvement project

Photo : Old concrete dam possibly connected to the Huber Colliery Operations on Sugar Notch Run with an old railroad stream culvert and stone arch tunnel in the background; Crack in concrete near leaf blockage near the middle of the dam

Photo : Woody debris blockage and household waste in pool on the right streambank of Sugar Notch Run looking downstream

Photo : Possible phosphate foam and froth at the surface of Sugar Notch Run looking downstream



(L) Photo : Ashley storm drain diversion ditch off S. Main Street entering Sugar Notch Run through a 30' incised channel

(R) Photo : Close up of the algae and grasses looking downstream on Sugar Notch Run behind the Preston Hose Company in Ashley Borough; Sugar Notch Run is full of coal fines, cinders, and sediment at this location

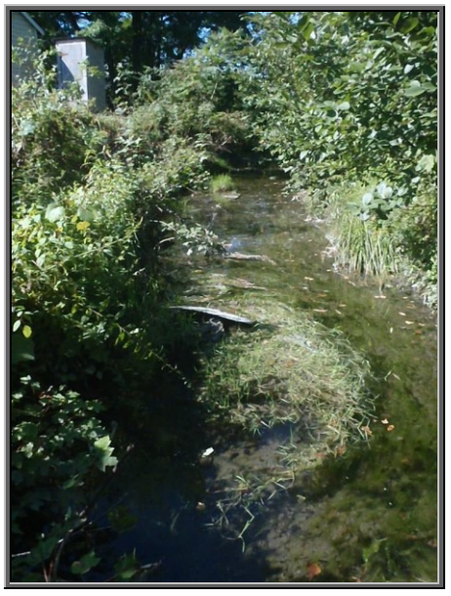


Photo : Sugar Notch Run loaded with green filamentous algae and grasses just behind the Preston Hose Company in Ashley Borough

Photo : Sugar Notch Run looking downstream up from the Preston Hose Company

Photo : Storm water drainage from S. Main Street flowing into Sugar Notch Run

Photo : Drainage culvert along S. Main Street in Ashley that carries storm water across the street to Sugar Notch Run

Photo : Sugar Notch Run upstream on the right hand side of S. Main Street looking south before crossing under the bridge going upstream towards Preston Road

Photo : Storm water drainage outlet with rock apron into Sugar Notch Run along S. Main Street looking south

Photo : Gravel bar deposition, point bars, and a check dam of sorts along the upstream side of the bridge over S. Main Street as Sugar Notch Run continue up upstream towards Preston Road; Removal of the gravel and point bars are recommended to prevent future flooding situations from occurring along S. Main Street

Photo : Double corrugated drainage pipes under Preston Road looking upstream on Sugar Notch Run just off S. Main Street

Photo : A tree that is nearly 20’ long with its rootwad in lodged in the culvert on the right hand side of the split flow on Sugar Notch Run

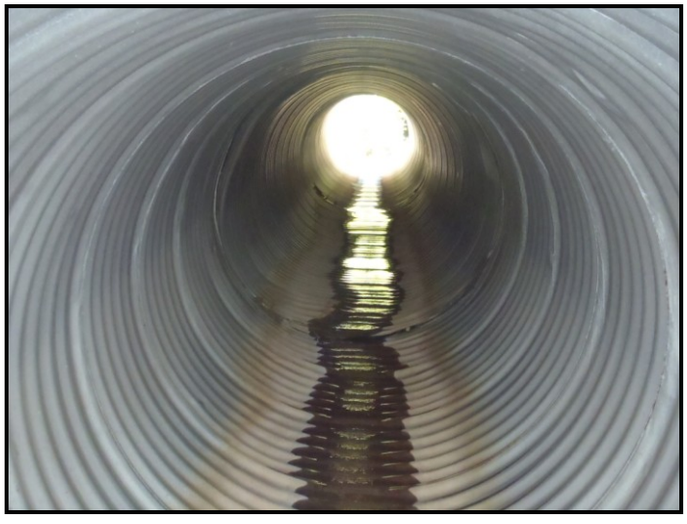


Photo: (L & R): The culvert pipe on the left is clear of any debris looking upstream and the culvert pipe on the right in blocked with a large tree and other woody debris; This culvert on the right is in need of a small debris removal project to remove the hazard to the road crossing into the Industrial Park and Hanover Township Youth and Recreation Center

Photo: A stormwater pipe entering the left bank of Sugar Notch Run just upstream of the culvert drainage system beneath Preston Road

Photo: Looking upstream on Sugar Notch Run 100’ above Preston Road

Photo: A shaley outcrop along the right bank looking upstream on Sugar Notch Run that has eroded to the point where stormwater from South Main Street has entered this section and cut down into the fracture shale and caused it to break up into the channel

Photo : A Panoramic shot along the right bank of Sugar Notch Run at a glacial outcropping that runs parallel to S. Main Street

Photo: Looking upstream on Sugar Notch Run just above the glacial outcropping along S. Main Street

Photo: A rock-filled stormwater drainage area backfilled at some point to prevent further erosion of the channel along the right bank of Sugar Notch Run

Photo: Looking downstream on Sugar Notch Run at a woody debris dam and gravel deposition from the previously filled erosion stormwater channel that entered the tributary from S. Main Street

Photo: Another stormwater channel cutting into the right stream bank further upstream seen through the Japanese knotweed

Photo : Streambank erosion along the left bank of Sugar Notch Run just downstream of an area where additional stormwater enters the tributary from several drainage pipes and upstream culverts

Photo : (L) Stormwater collection chamber along the left bank that empties runoff into the rock apron before entering Sugar Notch Run just upstream of the undercut eroded bank

Photo : (R) Sugar Notch Run looking upstream of the stormwater collection chamber would normally flow through both of these drainage pipes, however the pipe to the right is severely blocked and the pipe to the left has created a scour pool and eroded the bank beneath it during previous high flow rain events; A stream improvement project could be designed here to place additional large rock beneath the pipe to prevent further erosion on both sides of the stream bank and would remove the scour pool

Photo : A large thick layer of coal silt probably from a remnant silt basin nearly 10' thick along the right bank that is severely eroding away and allowing coal silt to enter Sugar Notch Run in this section just downstream of the large corrugated culvert above the scour pool; A possible streambank stabilization project could be looked at for this location

Photo : Looking downstream on what would be Sugar Notch Run, if it were flowing into the drainage pipe; In this location it is a losing reach through the porous culm, rock, and shale in the area

Photo : The left drainage pipe is entirely blocked on the upstream side of Sugar Notch Run which is dry and has already experienced high water and storm events that have deposited all of the smaller rock material in a gravel bar deposition just above both pipes

Photo : Looking upstream on Sugar Notch Run which is entirely dry and loaded with sediment, gravel bars, coal silt, and culm material

Photo: WALMART Trailer Drop Storage Lot along Preston Drive with the PA DOT Maintenance Dome in the background along S. Main St.

Photo: **WALMART Lot Stormwater Detention/Wetlands Basin with a drop inlet structure that empties into Sugar Notch Run to the east of the riser pipe**

Photo : Looking downstream from inside of a corrugated squash pipe drainage culvert into Sugar Notch Run; WAL-MART stormwater enters from the left side of the bank looking downstream

Photo : The upstream side of the squash pipe where Sugar Notch Run is more confined to a stormwater basin as opposed to a stream channel; The guard rail above and road takes you to the WAL-MART Trailer Storage Drop Lot

Photo : Terra cotta drain tiles in Sugar Notch Run that have come loose from the floor of the concrete drainage system that is constructed to carry Sugar Notch Run beneath State Route 29

(L) Photo: Shaley outcrop on the left side of Sugar Notch Run looking upstream near State Route 29 highway tunnel underpass

(R) Photo: Stormwater runoff drainage from SR 29 that runs into Sugar Notch Run that is causing some sedimentation issues just below the State Route 29 highway tunnel underpass

Photo : Sugar Notch Run is pooled at this point upstream in a 3' pool at the outlet of the State Route 29 underpass, however it doesn't flow downstream in the channel at this point and is more than likely lost to the local mine pool in this vicinity

Photo : A stormwater overflow channel that is very steep that drains runoff from the off ramp of State Route 29 onto S. Main Street at the light; The PA DOT Maintenance Facility Shed is located upstream and adjacent to this draw to the right of this area

Photo : Looking downstream on Sugar Notch Run as the stream enters the pool just below the State Route 29 underpass tunnel

Photo: Entering the terra cotta lined State Route 29 Underpass tunnel that carries Sugar Notch Run looking upstream into the several hundred foot tunnel

(L) Photo: Robert Hughes, EPCAMR Executive Director didn't forget to bring his LED Headlamp on this excursion into the darkness

(R) Photo: Interesting terra cotta tile work on the floor of the underpass...funny how the color is the same as AMD

Photo: Entering the terra cotta lined State Route 29 underpass tunnel that carries Sugar Notch Run looking upstream into the several hundred foot tunnel; Sugar Notch Run was flowing through the underpass across the entire length of the terra cotta floor to a depth of 1”

Photo: A few missing tiles here are probably the ones that were found below the pool downstream in Sugar Notch Run

Photo: Looking downstream on Sugar Notch Run at the entrance to the State Route 29 underpass tunnel with a tire pile above header of the structure

Photo: A closeup of one of the brass PA Department of Highways Keystone plates cemented into the underpass; Seems as if the year of construction name plate might have been stolen from above the plate

(L) Photo: Sugar Notch Run looking upstream above the State Route 29 underpass tunnel

(R) Photo: Stormwater drainage pipe from State Route 29 coming down the left bank of Sugar Notch Run looking upstream

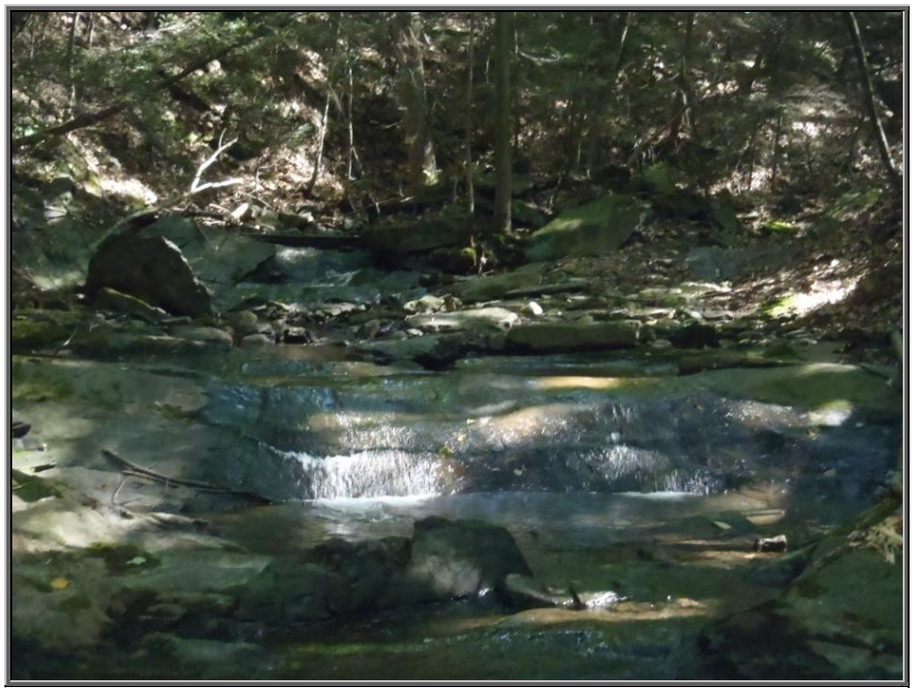
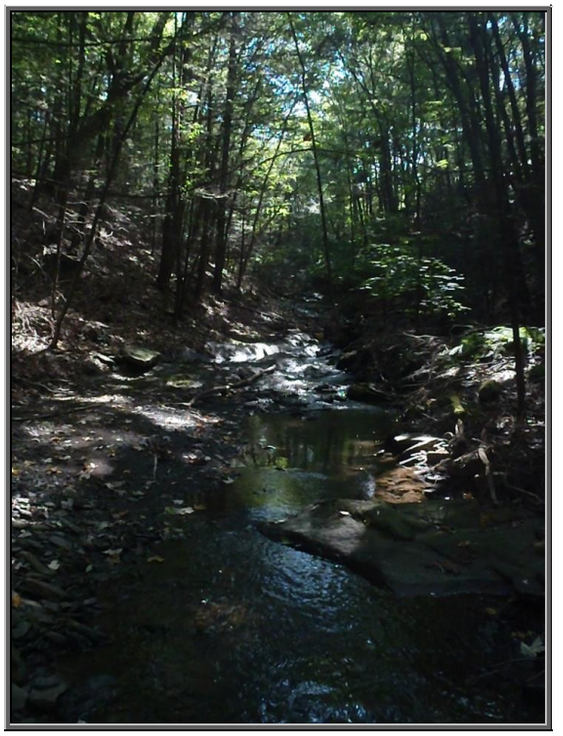


Photo: Natural bedrock folds in Sugar Notch Run looking upstream

Photo: 24" exposed coal seam plunging into Sugar Notch Run along a syncline and the left bank of Sugar Notch Run looking upstream

Photo: Another 12 ‘ shale outcrop plunging across Sugar Notch Run

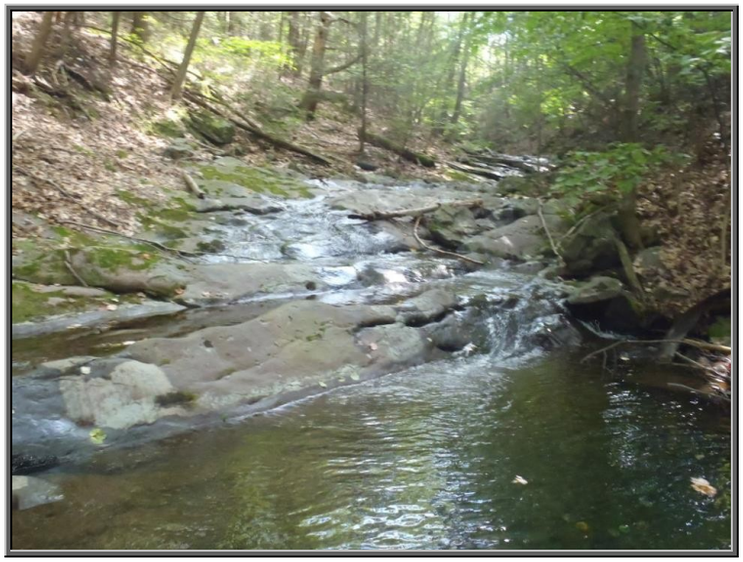


(L) Photo: Small woody debris blockage at the top of one of the sets of many falls along this section of Sugar Notch Run between State Route 29 and I-81; This area could easily be a stream improvement and habitat restoration project
(R) Photo: Sugar Notch Run looking upstream and some additional rock slides

(L) Photo: The ascent through this ravine and steeply sloping section of Sugar Notch Run looking upstream

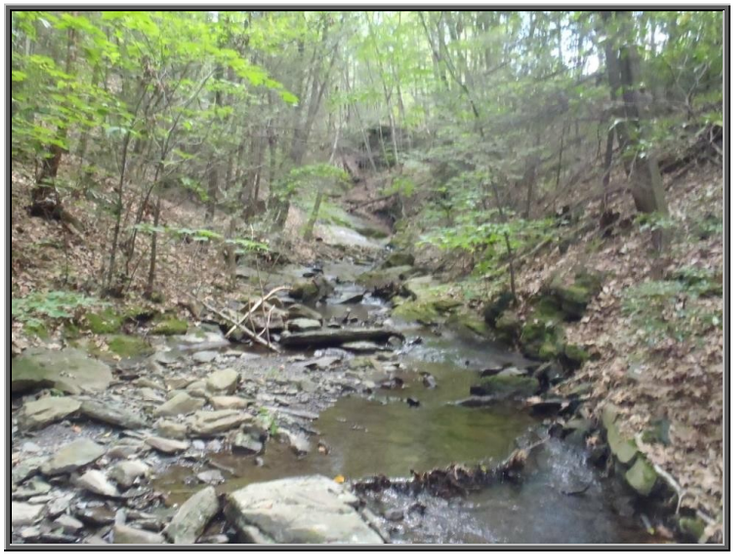
(R) Photo: Mine opening or cropfall along the left bank of Sugar Notch Run between SR 29 and I-81

Photo: Interesting panoramic of the glacial outcropping formation typical in the Wyoming Valley on the right hand bank of Sugar Notch Run looking upstream



(L) Photo: More slides and folds in the glacial bedrock of Sugar Notch Run similar to the Tubs Natural Area in the Mill Creek Watershed to the north, but wider and flatter

(R) Photo: Not an easy place to hike in chest waders through some of these sections of stream along Sugar Notch Run



(L) Photo: Waterfalls in between the glacial rock folds on Sugar Notch Run

(R) Photo: Sugar Notch Run looking upstream

(L) Photo: Another glacial outcropping on the right hand bank looking upstream

(R) Photo: A fold in the glacial outcrop causing a rock fall (right of center) along the left bank of Sugar Notch Run

Photo: Sugar Notch Run flowing over another steeply pitching glacial outcropping in the bedrock

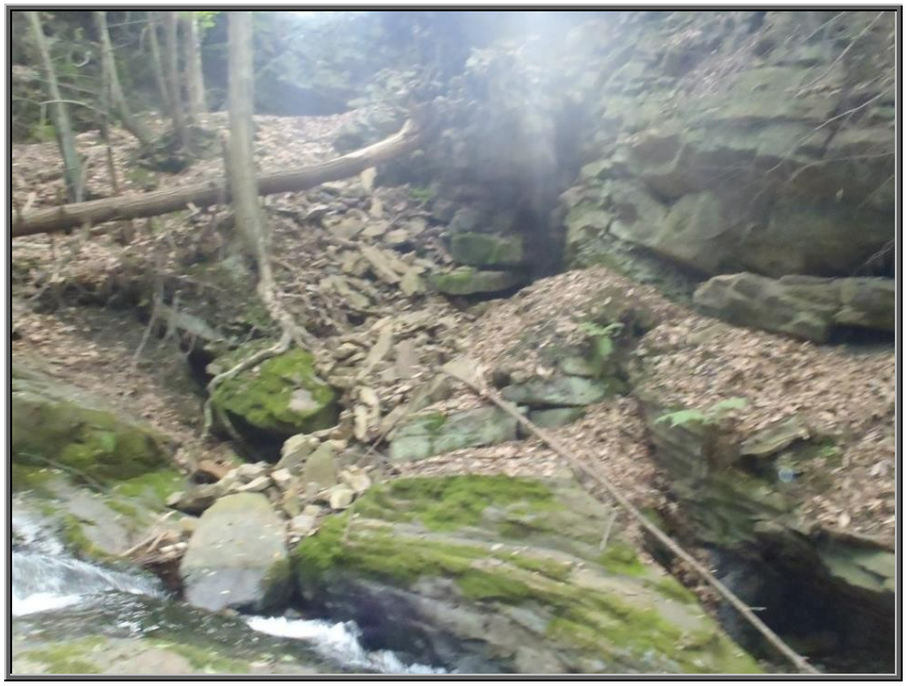
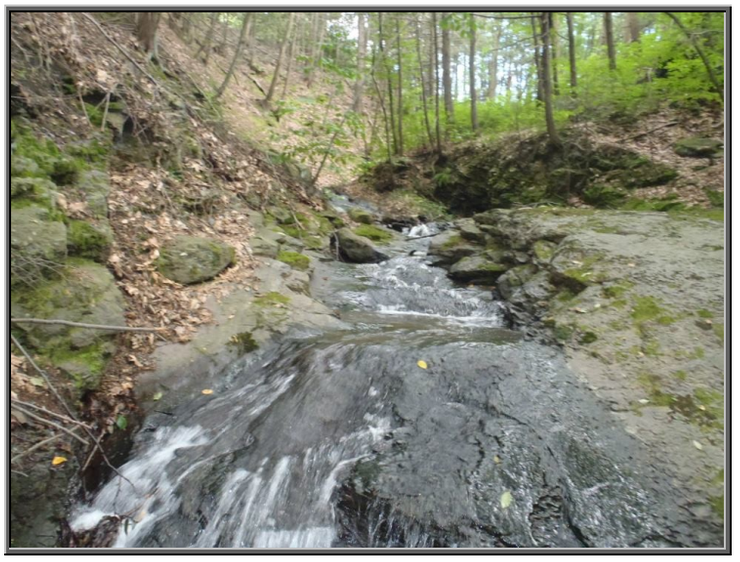


Photo: Another rock fall along the right hand bank of Sugar Notch Run looking upstream



(L) Photo: Oak tree growing on the edge of an outcrop

(R) Photo: Waterfalls on Sugar Notch Run as EPCAMR continues to climb towards the headwaters of Sugar Notch Run and I-81

Photo: Another slide into a small pool on Sugar Notch Run; This section is not impacted by AMD, nor does it have impaired water quality

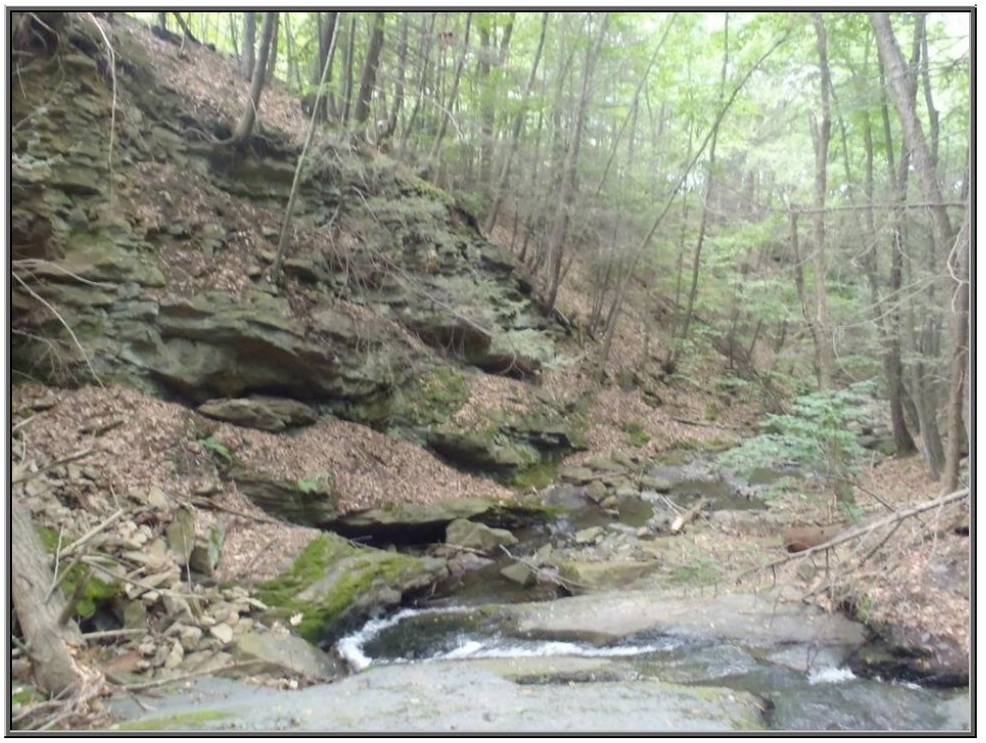


Photo: Glacial outcrop along the left bank of Sugar Notch Run

(L) Photo: Shaley outcrop covered in moss cleaving off from a glacial outcrop

(R) Photo: Shaley outcrop covered in moss cleaving off from a glacial outcrop

(L) Photo: Sugar Notch Run further upstream leveling out for some distance

(R) Photo: Layered plunging synclines running across Sugar Notch Run

Photo: Another glacial outcrop with severe rock falls and fracturing in the ravine along the right stream bank heading upstream on Sugar Notch Run

(L) Photo: Another slide into a 2' pool on Sugar Notch Run looking upstream

(R) Photo: Looking upstream on Sugar Notch Run towards the road entrance crossing to the Hanover Mini-Hawks Football practice area

Photo: Looking upstream on Sugar Notch Run towards the road entrance crossing to the Hanover Mini-Hawks Football practice area

Photo: Looking upstream on Sugar Notch Run towards the road entrance crossing to the Hanover Mini-Hawks Football practice area

(L) Photo: Corrugated Steel double pipe culverts looking downstream on Sugar Notch on the other side of the entrance road to the Hanover Mini-Hawks Football practice area; Culverts are blocked up and could be cleared of debris with minimal effort

(R) Photo: Woody debris and leaf pack dam on Sugar Notch Run; This area could easily become a stream and habitat improvement project

(L) Photo: Sediment laden section of Sugar Notch Run looking upstream

(R) Photo: Gravel bar deposition on left bank of Sugar Notch Run looking upstream

(L) Photo: Woody debris in Sugar Notch Run at meander looking upstream; This area could be a small stream improvement and habitat restoration project

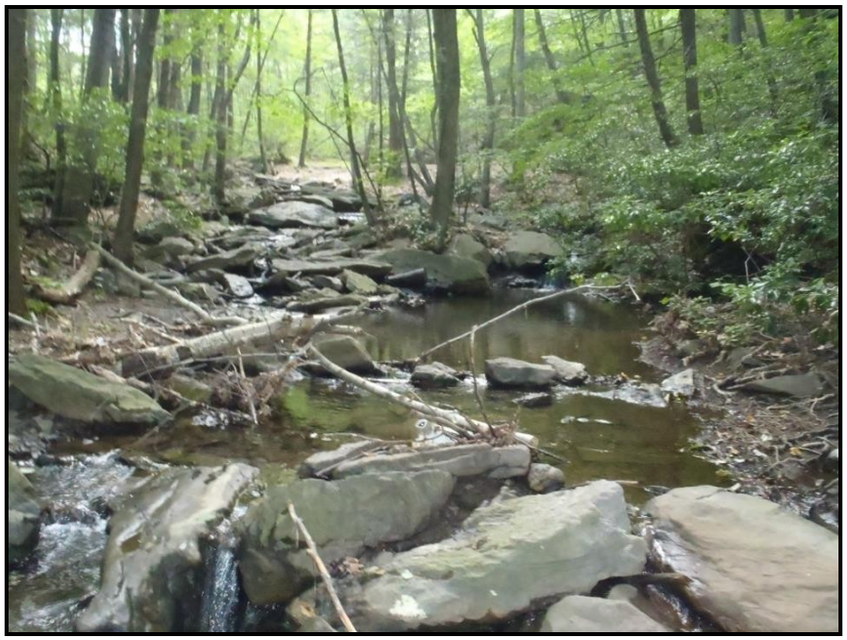


Photo: Looking upstream on Sugar Notch Run

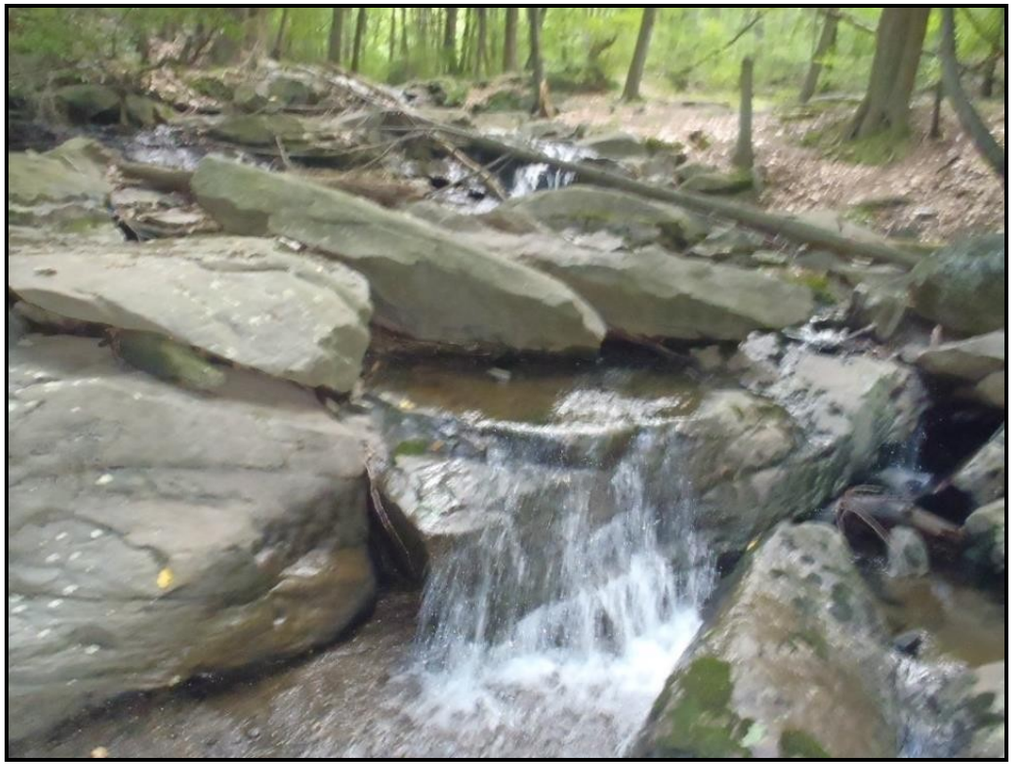


Photo: Small step pools on Sugar Notch Run looking upstream

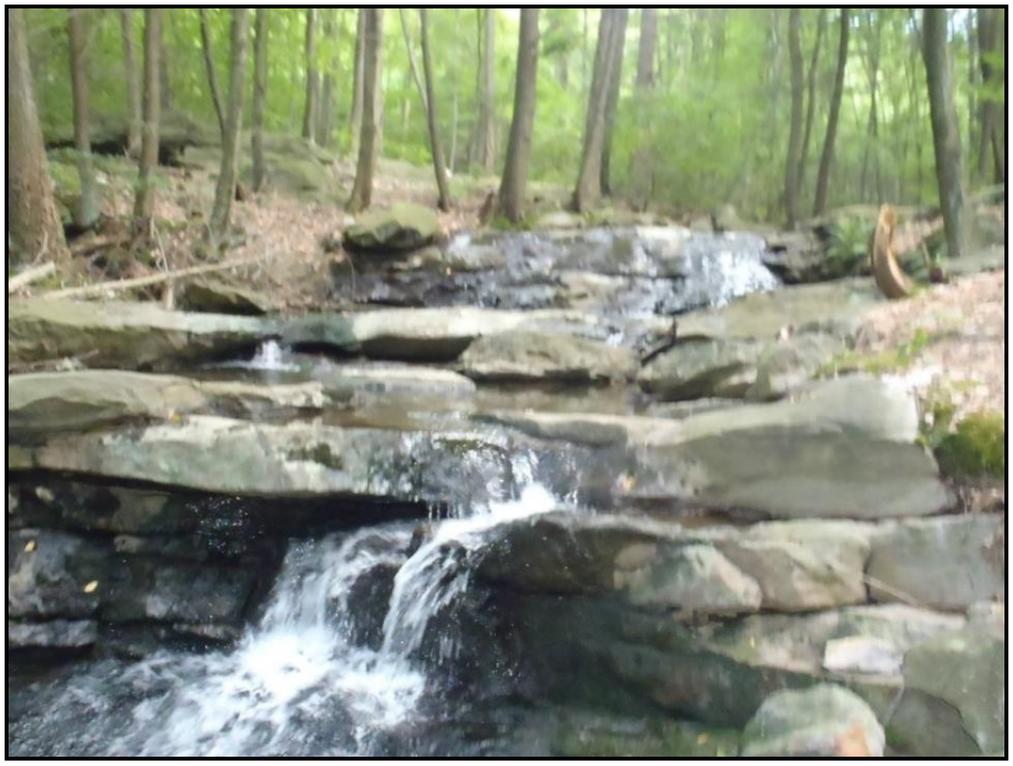


Photo: A series of three sets of step pools on Sugar Notch Run looking upstream

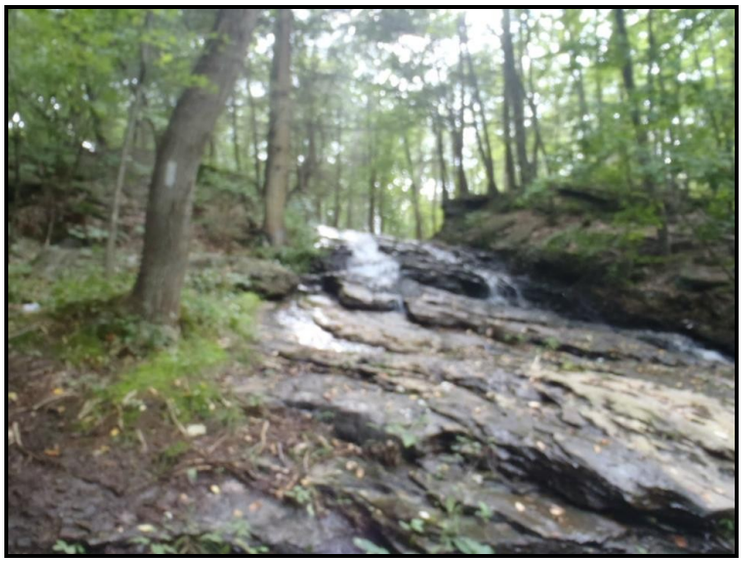
(L)Photo: Subsidence area just outside the right stream bank along Sugar Notch Run

(R) Photo: Shallow pool on Sugar Notch Run

(R) Photo: Dam on Sugar Notch Run built by kids no doubt to swim in this 3' pool just below the 50' steeply sloping rock slide and waterfall

Photo (L): Looking directly up the face of the bedrock from within the pool on Sugar Notch Run

Photo (R): Near the top of the waterfalls on Sugar Notch Run



(L) Photo: Climbing the waterfalls from the left bank of Sugar Notch Run

(R) Photo: Looking downstream into the pool and man-made dam on Sugar Notch Run; This dam could easily be removed to prevent a potential flooding hazard downstream as a stream channel improvement project

Photo: Dawson Hughes in the 3' pool below the rock slide on Sugar Notch Run

Photo: Dry ephemeral unnamed channel that emanates from the rock piles alongside of Penobscot Mountain near I-81 southbound lane and leads to Sugar Notch Run

(L) Photo: Mine entrance and collapse along Sugar Notch Run just above the Sugar Notch Trail on lands owned by the Earth Conservancy; Well ventilated, cool air flows all year round out of this chasm

(R) Photo: Dawson Hughes and John Karpien-EPCAMR Community Service Volunteers near the breezy and cold mine collapse and crop fall

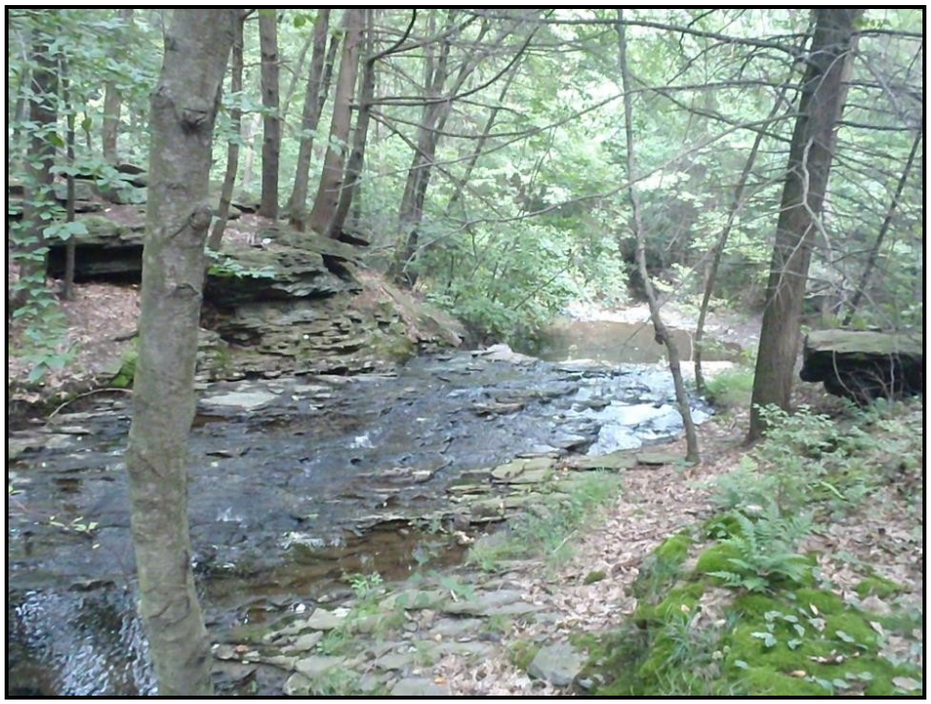


Photo: Sugar Notch Run upstream of the waterfall and pool

Photo: Sugar Notch Run upstream begins to narrow in size and follow some more bed rock outcroppings as it begins to flatten out again on a small plateau

Photo: Sugar Notch Run upstream in the shade

Photo: Sugar Notch Run with a braided channel coming to a confluence that is in need of a stream improvement project to remove all the woody debris and tires from this reach

Photo: Rock slippage fault that runs for several hundred feet along Penobscot Mountain

Photo: Extremely undercut and incised channel below the railroad underpasses into Sugar Notch Run

Photo: Old and new railroad underpasses with Sugar Notch Run flowing through the right hand tunnel; built right into the bedrock

(L) Photo: Sugar Notch Run flowing through the newer constructed tunnel underpass looking upstream; Notice the bedding planes are steeply pitched and faulted

(R) Photo: Looking downstream from inside the railroad tunnel at Sugar Notch Run

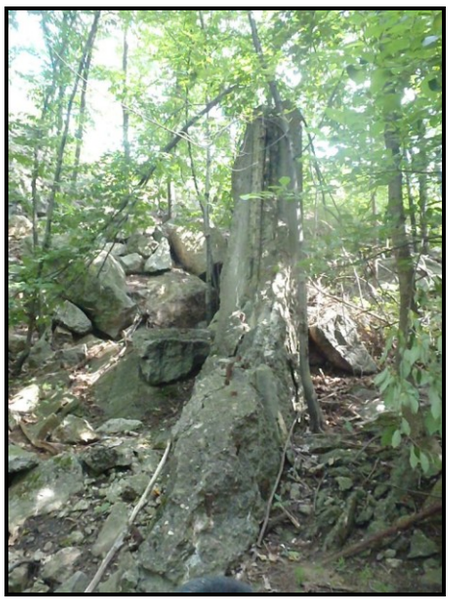
Photo: Dawson Hughes and John Karpien at the old stone arch tunnel railroad underpass

Photo: Looking upstream of Sugar Notch Run as EPCAMR exits from beneath the railroad underpass

(R) Photo: A shot of the older constructed masonry cut stone underpass looking down the other side of the railroad tunnel

(L) Photo: Awesome masonry work finished in the tunnel

(R) Photo: Sugar Notch Run flowing through a broken section of an old concrete dam; Trout and other minnow species were shocked and present in this stretch of Sugar Notch Run that currently appears on the List of Impaired Waters that EPCAMR is seeking assisting in removing from the Impaired Waters List due to our findings with PA Trout Unlimited; Some woody debris is present and can easily be removed as a part of a stream and habitat improvement project



(L) Photo: Remnants of the old concrete dam with rebar exposed along the left stream bank looking upstream

(R) Photo: Remnants of the old concrete dam with rebar exposed along the left stream bank looking downstream

Photo: Sugar Notch Run looking upstream of the dam; Schools of fish and native brook trout darting everywhere as EPCAMR Staff walked up the stream corridor with I-81 Southbound lane to the left of the tributary

Photo: Small seep of iron from rock fill material coming from I-81 into Sugar Notch Run's left bank looking upstream; The seep had no impact on Sugar Notch Run

Photo: Another feeder stream entering Sugar Notch Run possibly from I-81 runoff into Sugar Notch Run's left bank looking upstream

(L) Photo: Sugar Notch Run flattens and widens here with plenty of minnows, green frogs, and native brook trout present darting along the right streambank near the undercut bank that provides great cover for them

(R) Photo: Finally, the I-81 culvert that carries Sugar Notch Run downstream; several hundred feet long and 6' high

(L) Photo: Sugar Notch Run on the east side of I-81; Channel bed composition changes to a conglomerate sandstone and Mauch Chunk Red Sandstone; Fish still present; Entering SGL 207 at this point adjacent to I-81

(L) Photo: Dawson Hughes, an explorer just like his own father, Robert Hughes, in the middle of the culvert under I-81 to the north side of I-81 and the eventual headwaters of Sugar Notch Run

(R) Photo: Sugar Notch Run only flows to about the elevation of 4-6" through the culvert downstream

Photo: Robert Hughes, EPCAMR Executive Director looking back at the tunnel entrance all the way on the north side of the highway

(L) Photo: PA Department of Highways sign tells us that the culvert under I-81 was originally constructed in 1965

(R) Photo: Dawson Hughes taking notes and recording data collected by Robert Hughes and John Karpien in the field

Photo: Sugar Notch Run looking upstream running parallel to I-81 northbound lane; This reach is also full of minnows and native brook trout

Photo: Crayfish, caddis flies, stoneflies, mayflies, crane fly larvae, all present....Stream has a very diverse bug population although it's listed as impaired; EPCAMR is looking to have this section of Sugar Notch Run also removed from the List of Impaired waters due to our findings

Photo (L): Paige Karpien volunteering for the day with her Dad, John working with EPCAMR to conduct our fisheries assessment on Solomon Creek;

Photo (R) Paige and John Karpien standing under the I-81 underpass on Sugar Notch Run

(L) Photo: Looking upstream at a pool on Sugar Notch Run; Notice the Mauch Chunk geology and red sandstone presence

(R) Photo: Mauch Chunk Red Sandstone bedding plane synclinal plunge into Sugar Notch Run's stream bottom

(R) Photo: Glacial Sandstone conglomerate and quartzite rock along I-81 and the right bank of Sugar Notch Run

(L) Photo: Feeder unnamed tributary on the left bank of Sugar Notch Run

(R) Photo: Deep pool on Sugar Notch Run; plenty of fish and brook trout young of year and fingerlings present

Photo: Confluence Sugar Notch Run and UNT1 (to the right) that parallels I-81 looking upstream to the southeasterly direction

Photo: Confluence of Sugar Notch Run and an unnamed tributary (UNT1) to the right and that parallels I-81 looking upstream to the southeasterly direction

(L) Photo: Woody debris and leaf pack blockage on UNT 1 to Sugar Notch Run

(R) Photo: Sandy gravel bar on outside bend of UNT1 to Sugar Notch Run

Photo: Meander on UNT1 to Sugar Notch Run flowing from a lush headwater wetlands area

Photo: Width of UNT1 is getting smaller as we head further into the headwaters; Full of ferns, phragmites, mosses, bull rushes and other wetland plants

(L) Photo : Braided section in UNT1 headwater wetlands to Sugar Notch Run

(R) Photo : Hay-scented Fern growth along streambank of UNT1

Photo : Sphagnum Moss growth on rocks and in the wetlands along the banks of the UNT1

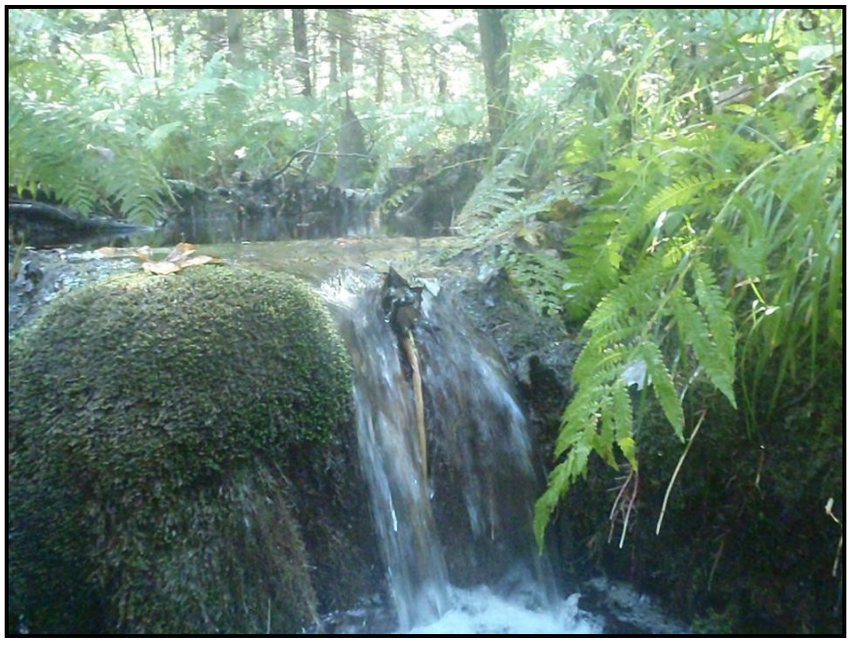


Photo: Small step pool from the wetlands of UNT1 to Sugar Notch Run

Photo: UNT1 before forming Sugar Notch Run being stream walked by Paige Karpien, Justyna Sacharzewska, and John Karpien

Photo: Phragmites in the headwater wetlands of the UNT1

Photo: Small unnamed tributary (UNT1a) emanating from the forested wetlands with woody debris in a step pool entering UNT1

Photo : UNT1A looking upstream into a forested wetland area that lies in between UNT1a and UNT1 before coming to a confluence with UNT1 to form Sugar Notch Run

Photo (L): Beginning section of flowing water from UNT1 along I-81 northbound lane to Sugar Notch Run

Photo (R): Upper most reach of the UNT1 to Sugar Notch Run; dry channel

Photo: Looking upstream on Sugar Notch Run; Few minnows present; Couldn't identify clearly enough as native brook trout during stream walk visually, however, the habitat and stream corridor is excellent

Photo : Large woody debris blockage in Sugar Notch Run; This fallen tree could easily be removed during a stream improvement project

Photo : Looking upstream on Sugar Notch Run into the headwaters

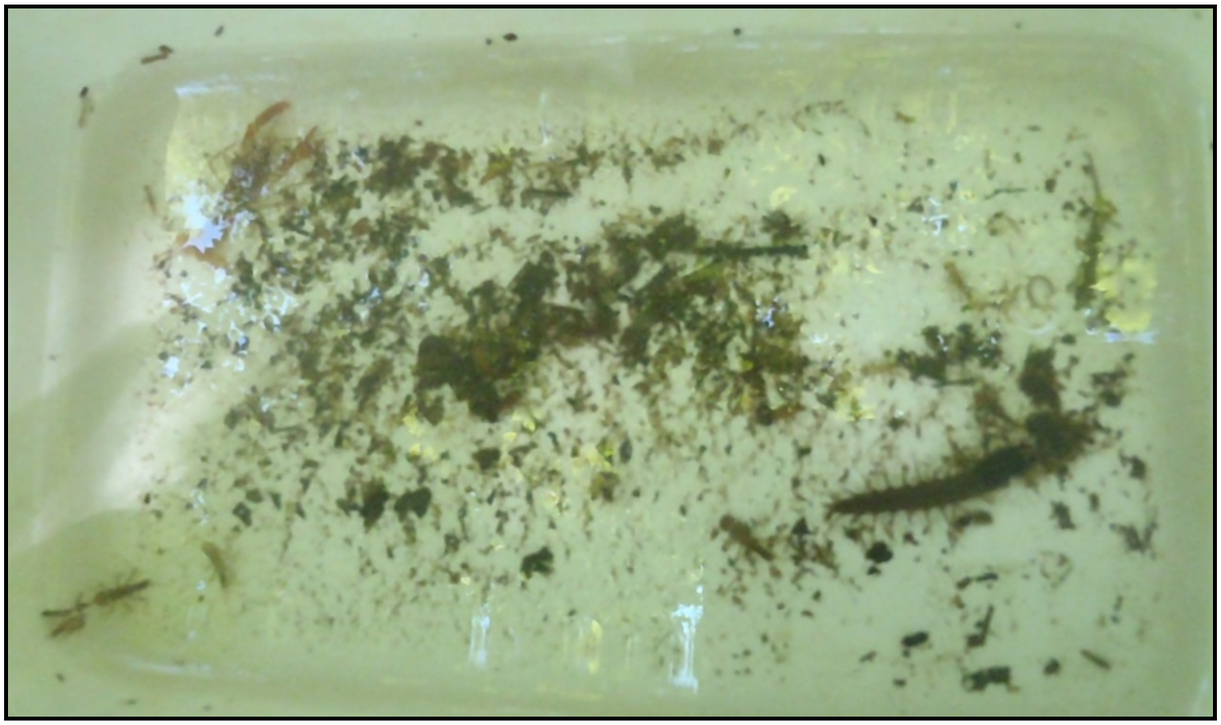


Photo : Some macro invertebrates sampling in the headwaters of Sugar Notch Run

Photo: Birch Tree with 90 degree angle over Sugar Notch Run

Photo: Leaf blockage and woody debris on Sugar Notch Run

Photo (L): UNT2 entering Sugar Notch Run from the right bank

Photo (R): Pool on Sugar Notch Run

Photo (L) : UNT3 entering Sugar Notch Run from the right bank

Photo (R) : UNT4 entering Sugar Notch Run from the right bank

Photo : Litter on SGL 207 near Sugar Notch Run; This site can easily be a litter cleanup project coordinated by EPCAMR and the PA Game Commission

Photo : Panoramic of headwater wetlands on Sugar Notch Run

Photo (L) : Ephemeral UNT5 along the right bank of Sugar Notch Run

Photo (R): Ephemeral UNT6 along the right bank of Sugar Notch Run

Photo : Paige Karpien, EPCAMR Student Volunteer from Plains-Solomon Jr. High caught a frog

Photo : Ephemeral UNT6 along the right bank of Sugar Notch Run

Photo : Upper most reach of Sugar Notch Run headwaters; dry with mossy growth in streambed and along channel