



Figure 1. Maple Road and Harvey Road intersection.



Figure 2. Driveway across from Maple Road. Beginning of Tributary.



Figure 3. Culvert under driveway from Figure 2. Flow first observed here. Beginning of Tributary.



Figure 4. Stream just below culvert.

The following pictures (Figures 5 – 27) were taken in order following the stream down towards the end where it discharges to Ridley Creek.



Figure 5

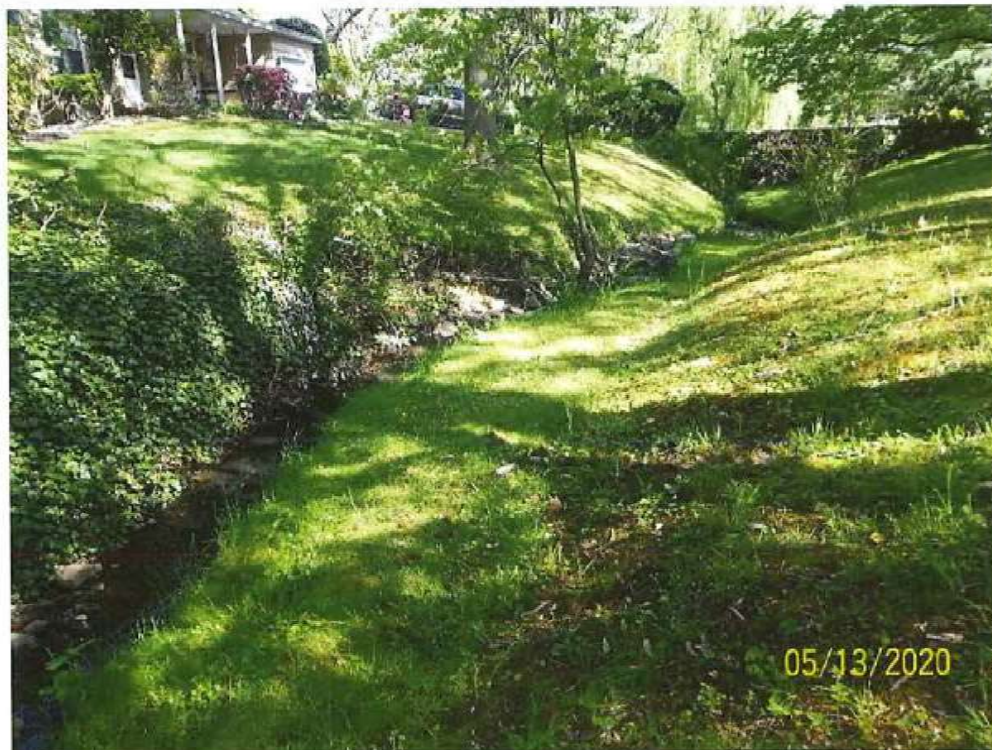


Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12

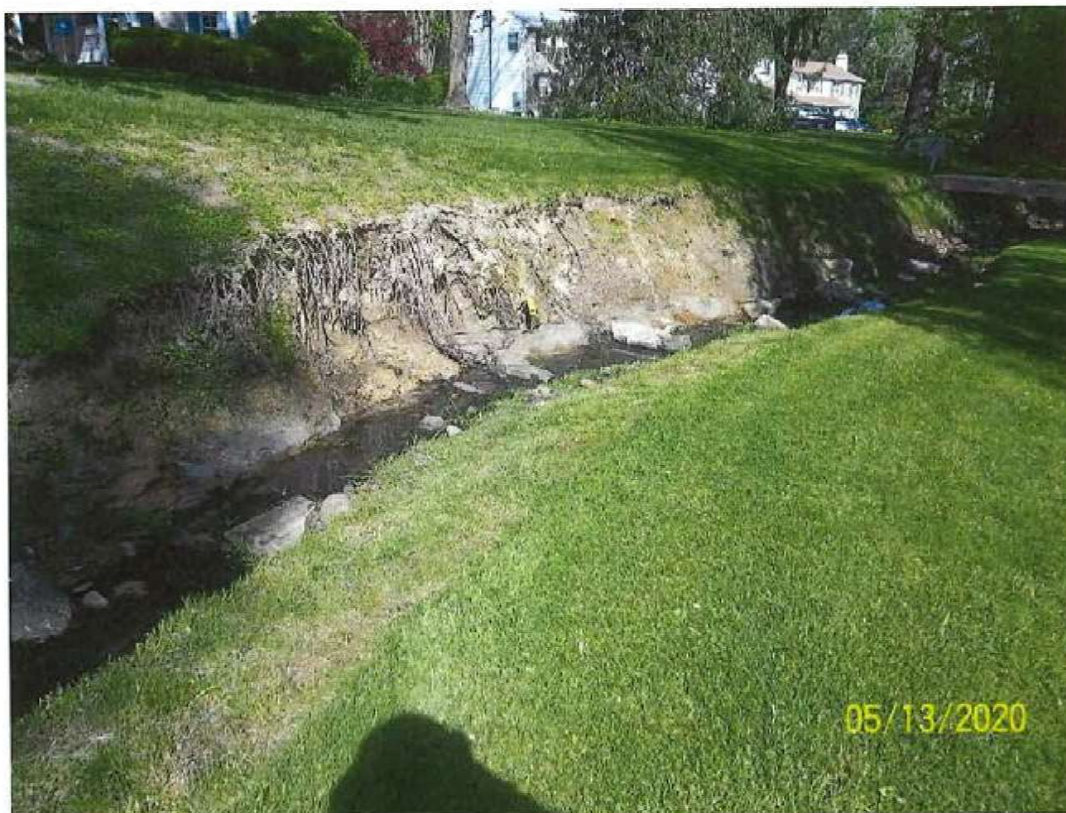


Figure 13



Figure 14



Figure 15

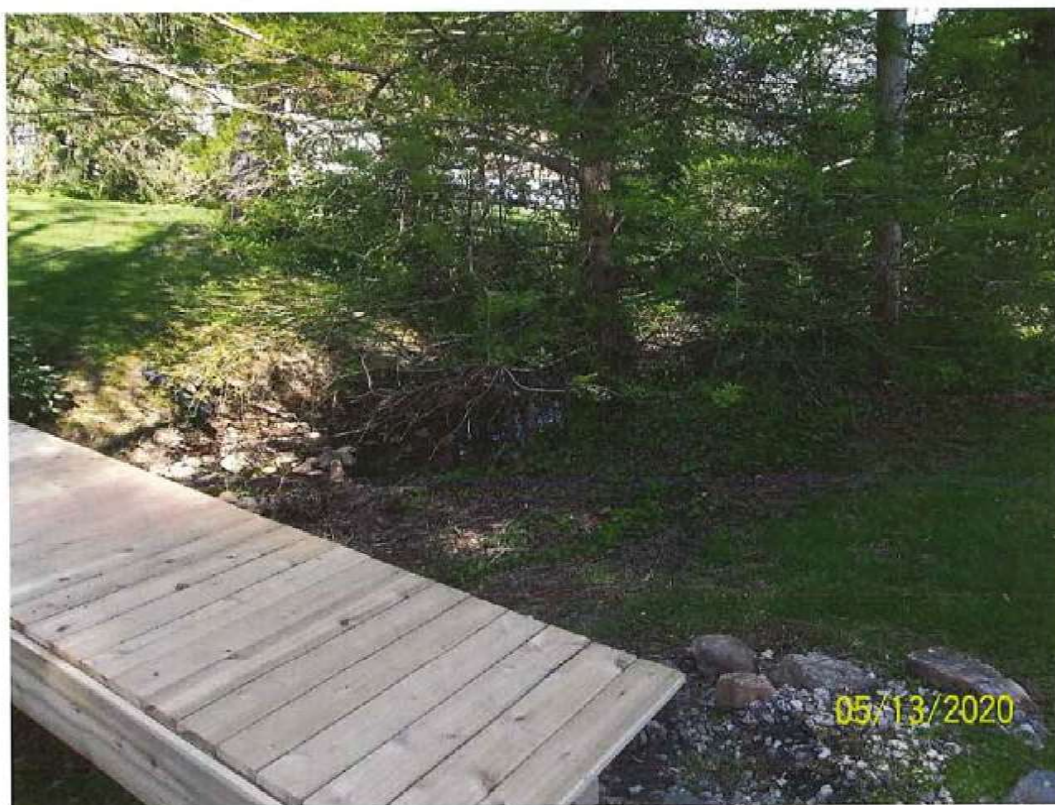


Figure 16



Figure 17



Figure 18

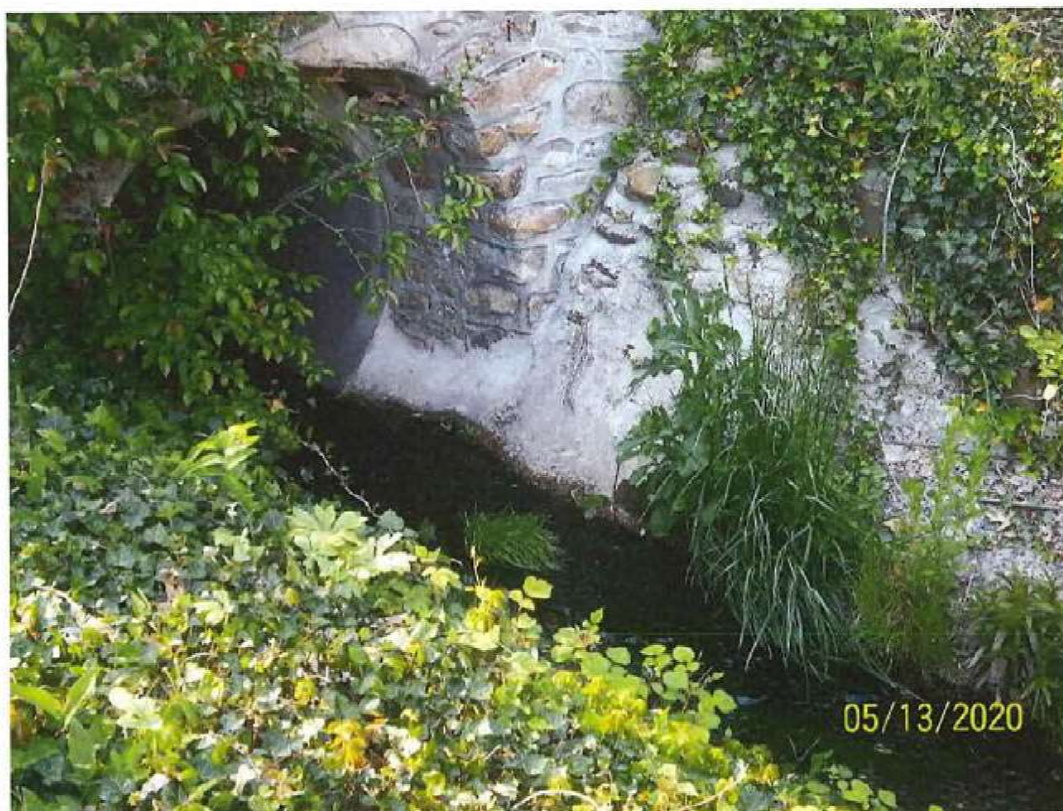


Figure 19



Figure 20



Figure 21

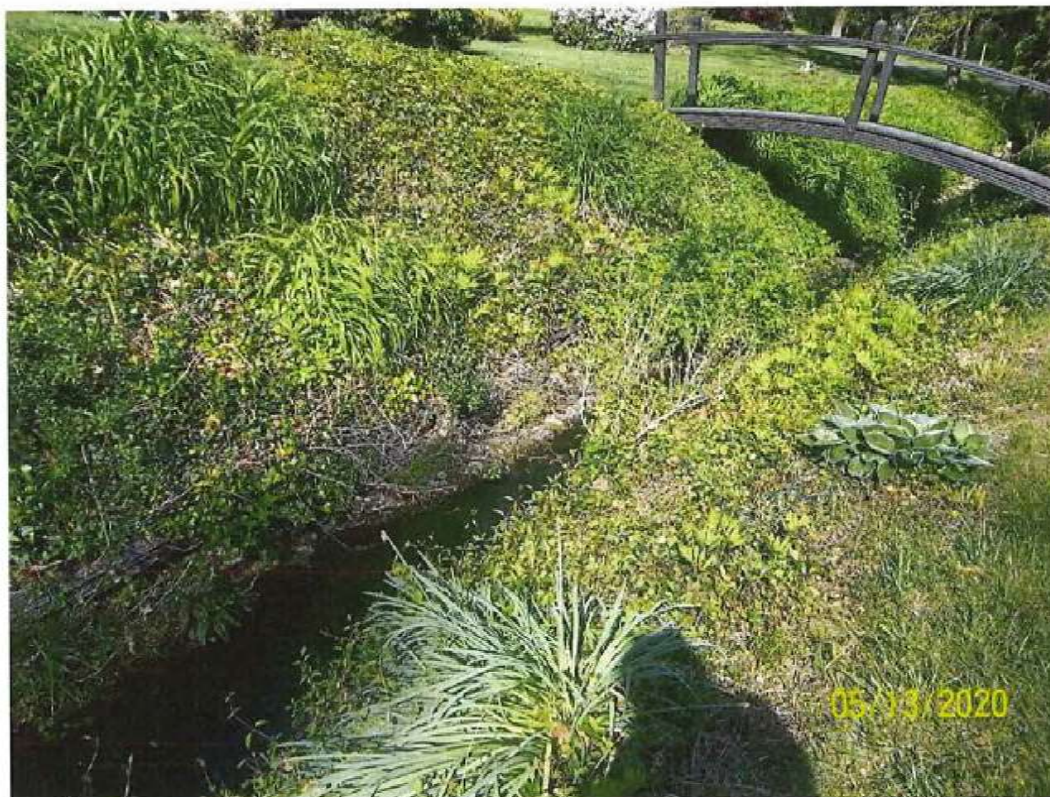


Figure 22

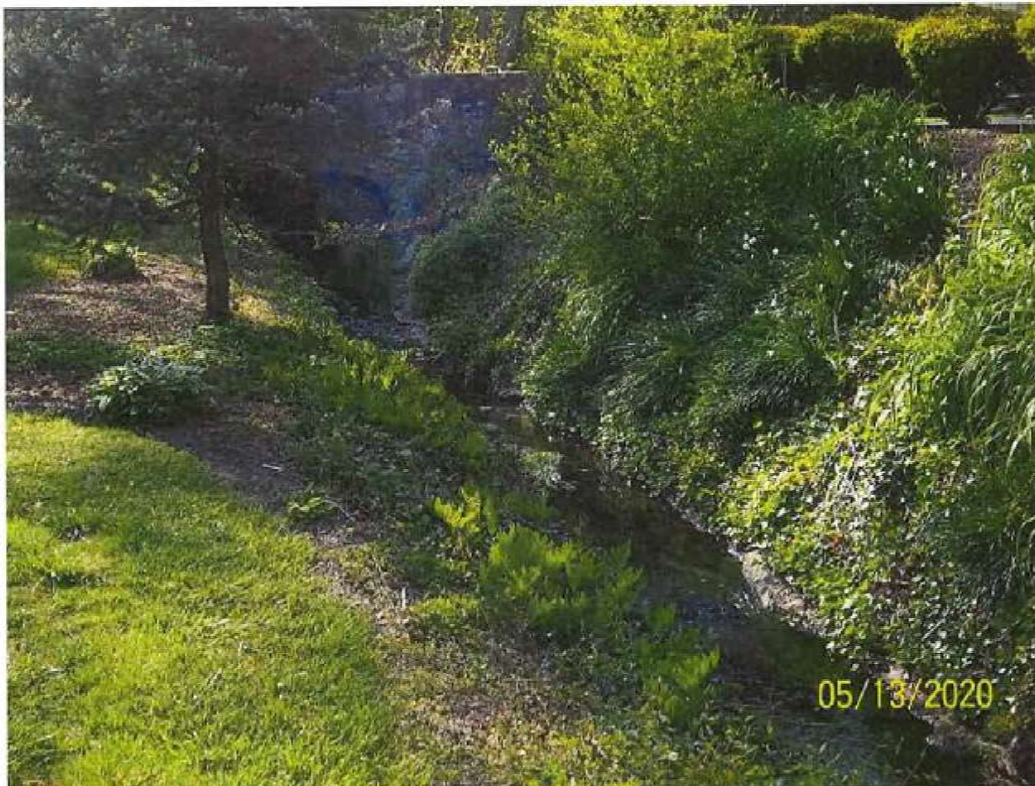


Figure 23



Figure 24



Figure 25



Figure 26



Figure 27

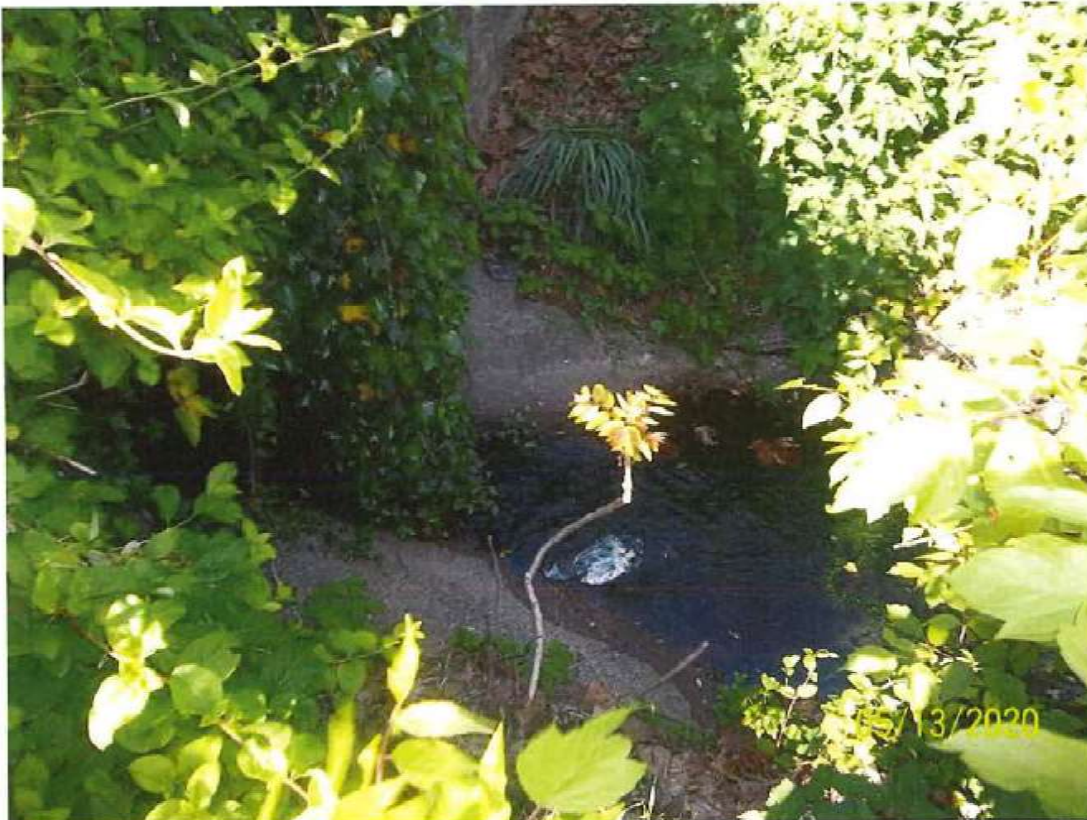


Figure 28. Tributary discharging into Ridley Creek.



Figure 29. Top of culvert discharging to Ridley Creek on the other side.

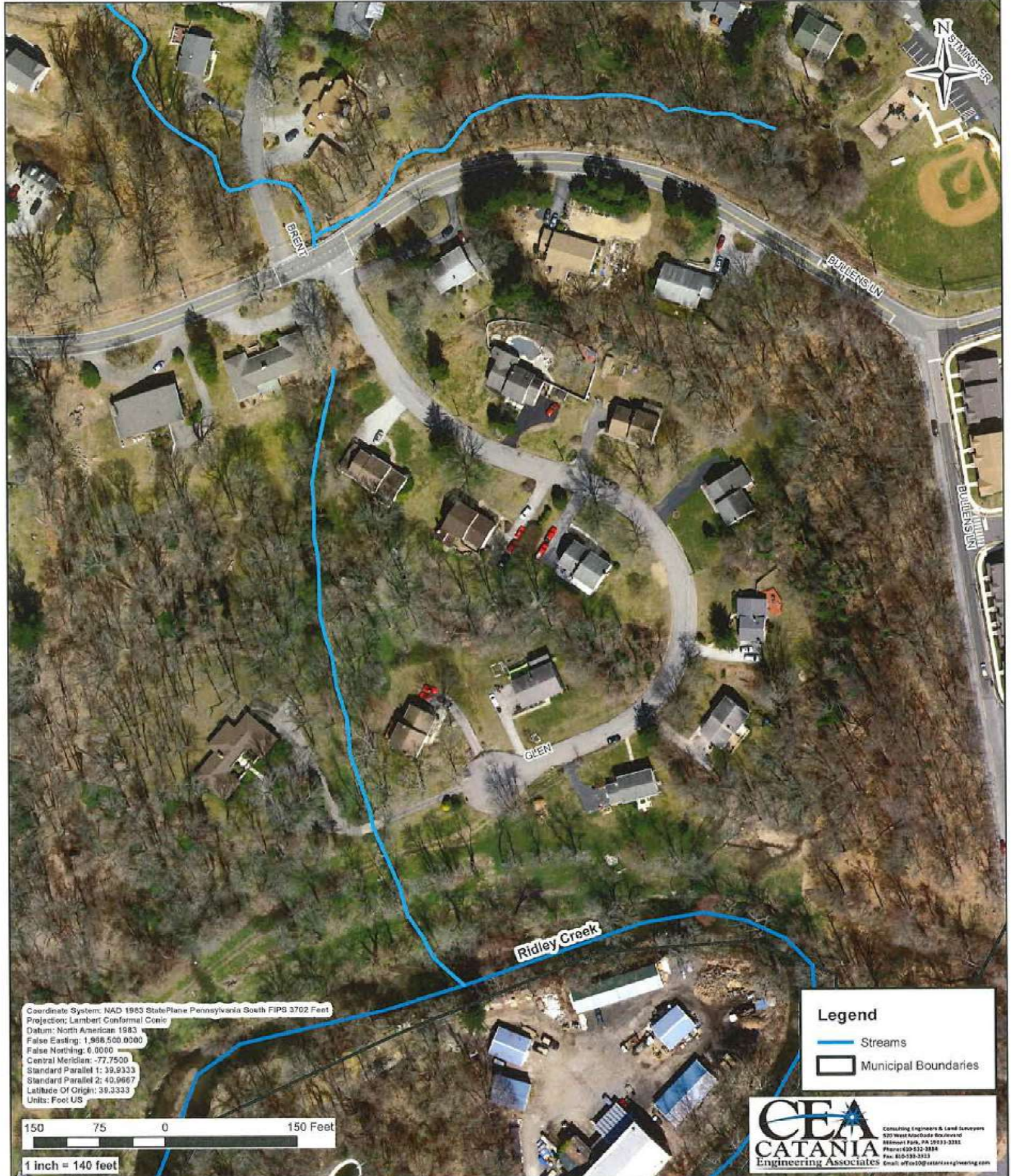
Attachment 4

Tributary Investigation: Ridley Creek Tributary (Glen Rd. and Brent Dr.)

Ridley Creek Tributary - Glen Rd & Bullens Ln

Nether Providence Township
83250-115MS4

Date: 5/8/2020





Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,986,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

150 75 0 150 Feet

1 inch = 140 feet

Legend

-  Streams
-  Municipal Boundaries

CEA
CATANIA
Engineering Associates

Consulting Engineers & Land Surveyors
627 West Foxcliffe Boulevard
Raleigh, PA 15133-3235
Phone: 410-532-2884
Fax: 410-532-2833
Email: office100@cataniaeng.com

Ridley Creek Tributary - Brent Drive

Nether Providence Township
83250-115MS4

Date: 5/8/2020

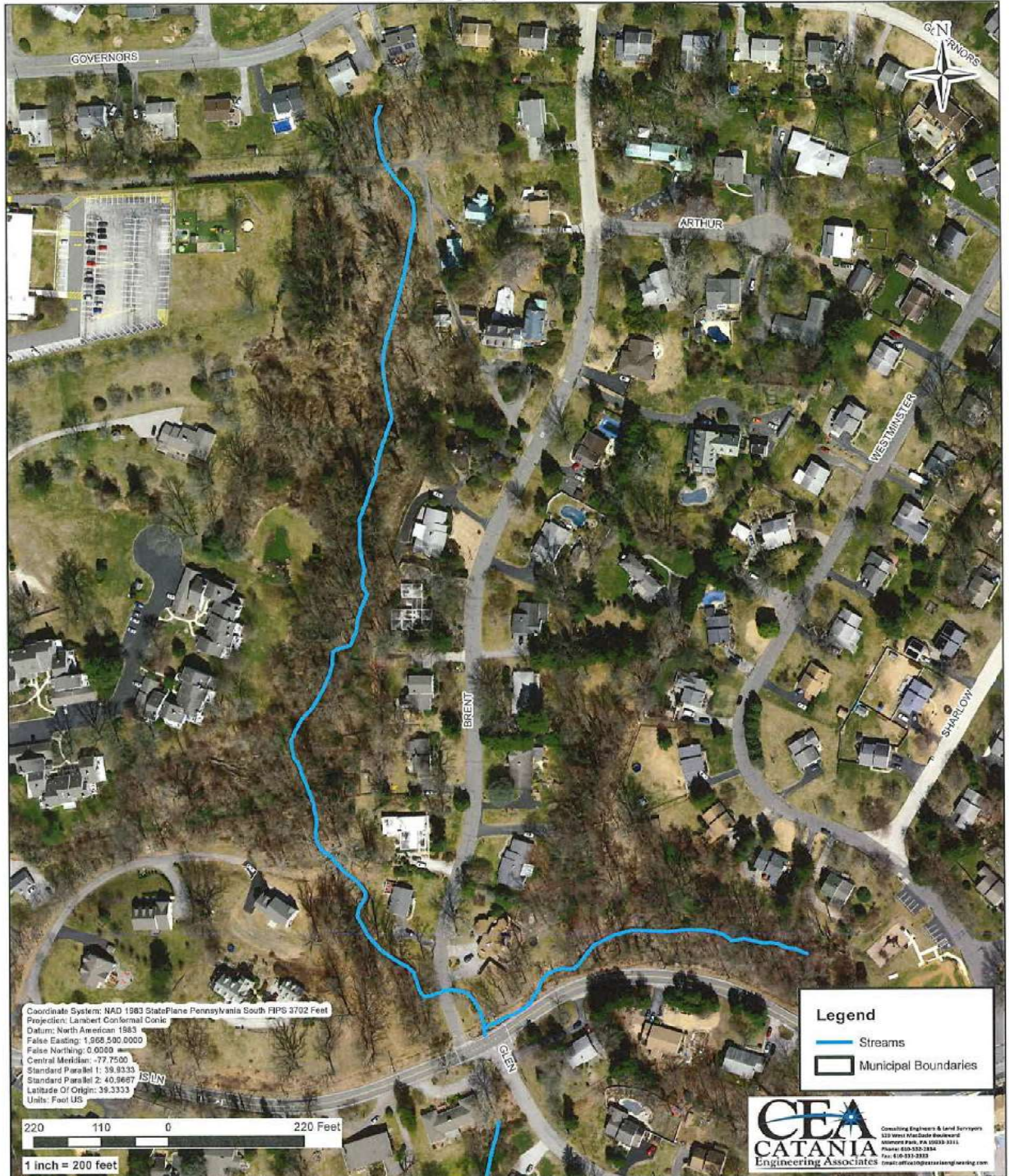




Figure 1. Top of Sproul Road on the Southern side. Flowing water first observed here. Beginning of tributary. Stream bed was dry before this point.

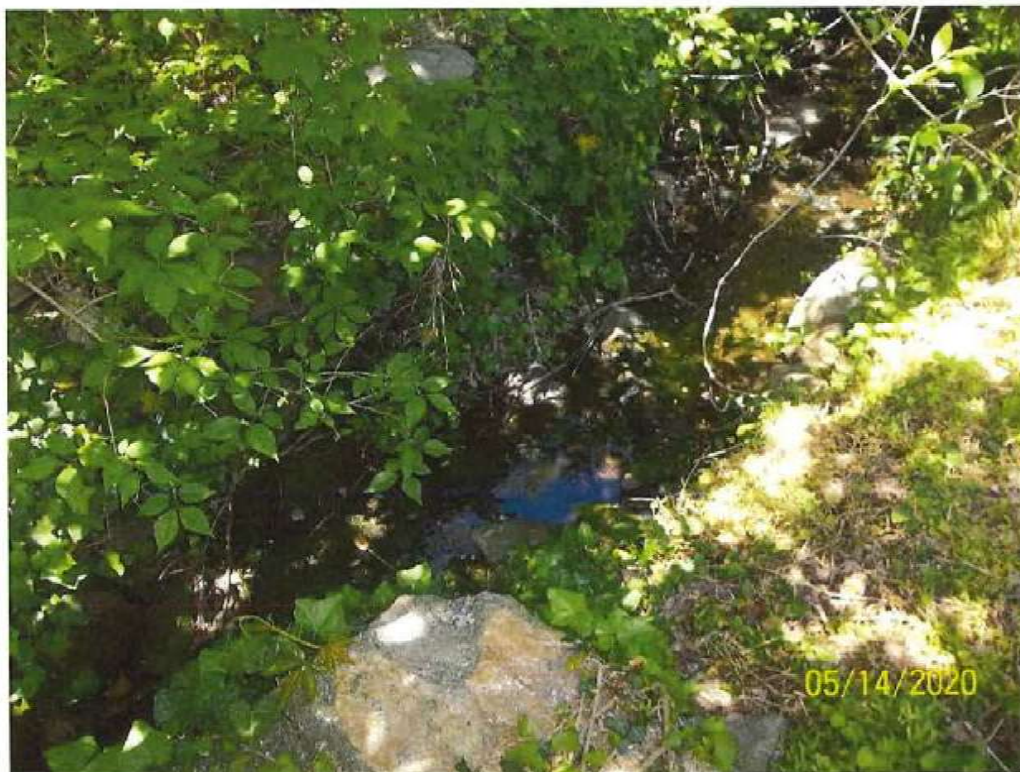


Figure 2. Flowing water at the beginning of tributary.

The following pictures (Figures 3 – 18) were taken in order following the stream down towards where it crosses underground Bullens Lane.



Figure 3

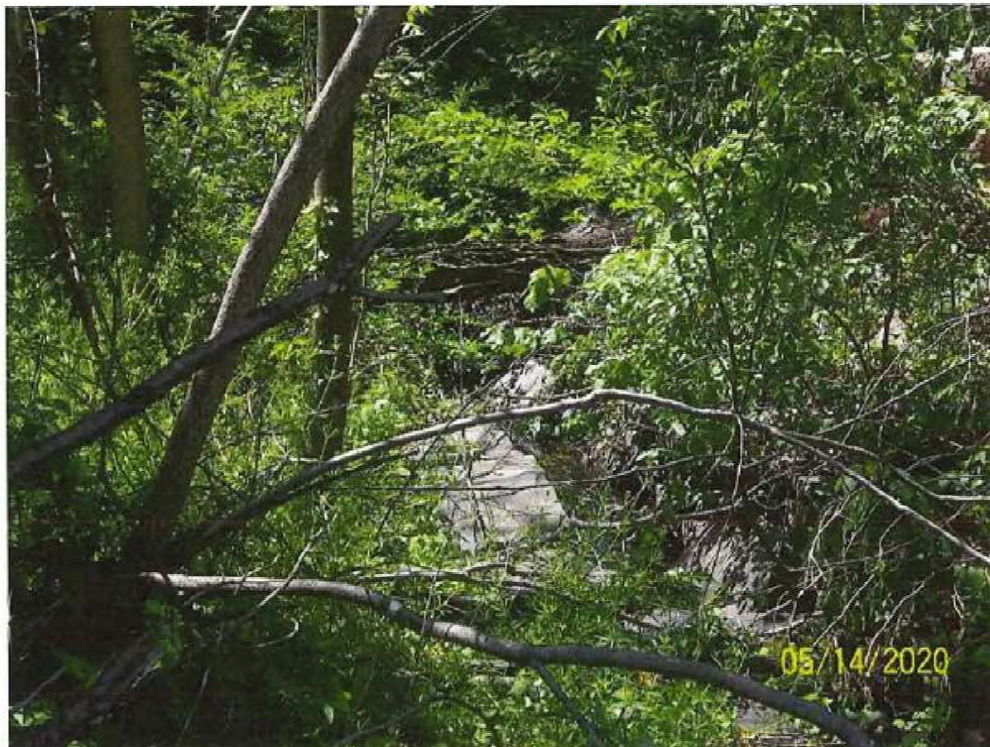


Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19. Tributary crossing Bullens Lane.



Figure 20. Closer image of culvert under Bullens Lane.



Figure 21. Bullens Lane and Glen Road intersection near where tributary resurfaces above ground.



Figure 22. Other end of culvert where tributary resurfaces above ground.



Figure 23. Water flowing out of culvert.



Figure 24. Water flowing out of culvert.

The following pictures (Figures 25 – 32) were taken in order following the stream down towards the end where it discharges to Ridley Creek.



Figure 25



Figure 26



Figure 27



Figure 28



Figure 29



Figure 30



Figure 31



Figure 32

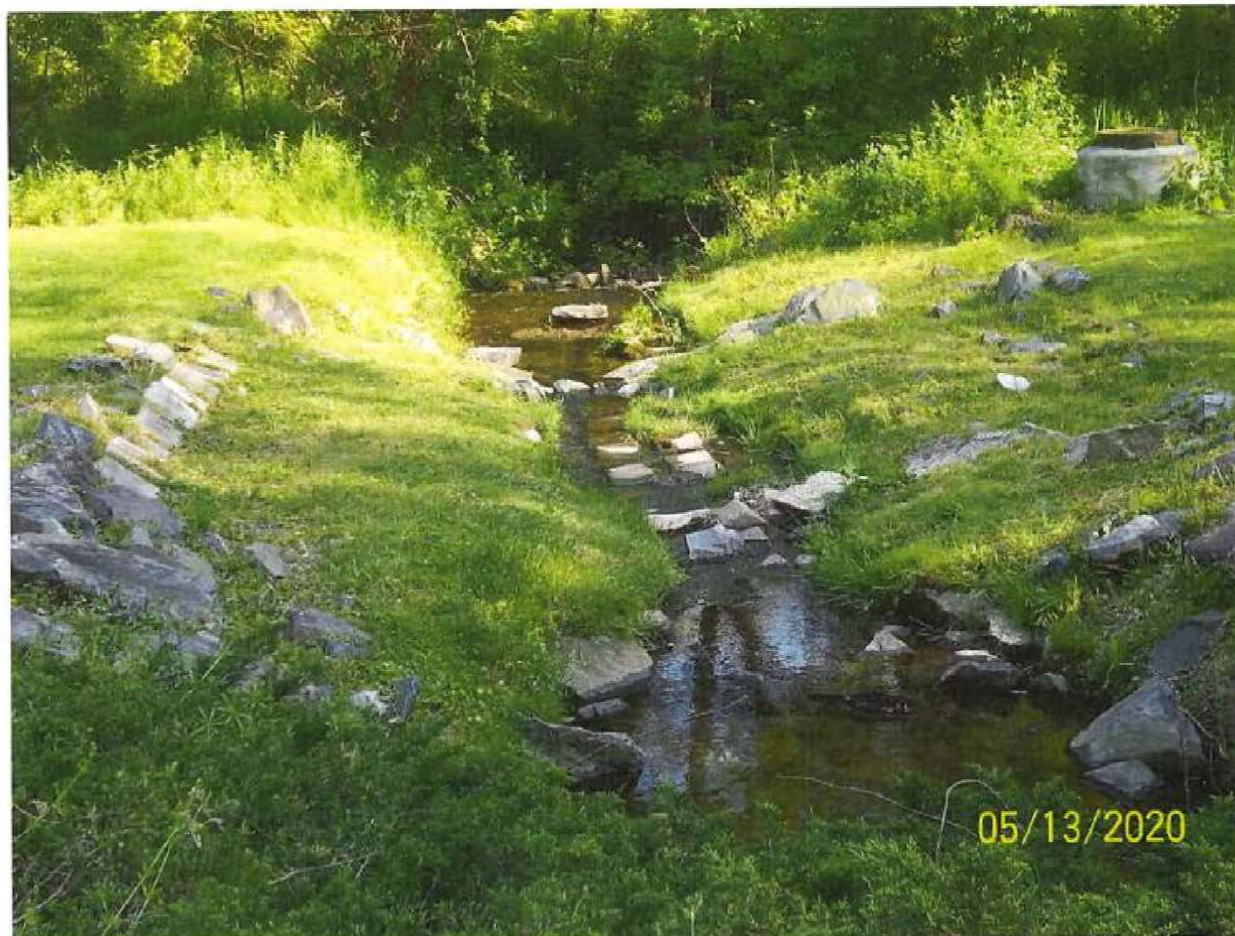


Figure 33. Tributary discharging to Ridley Creek.

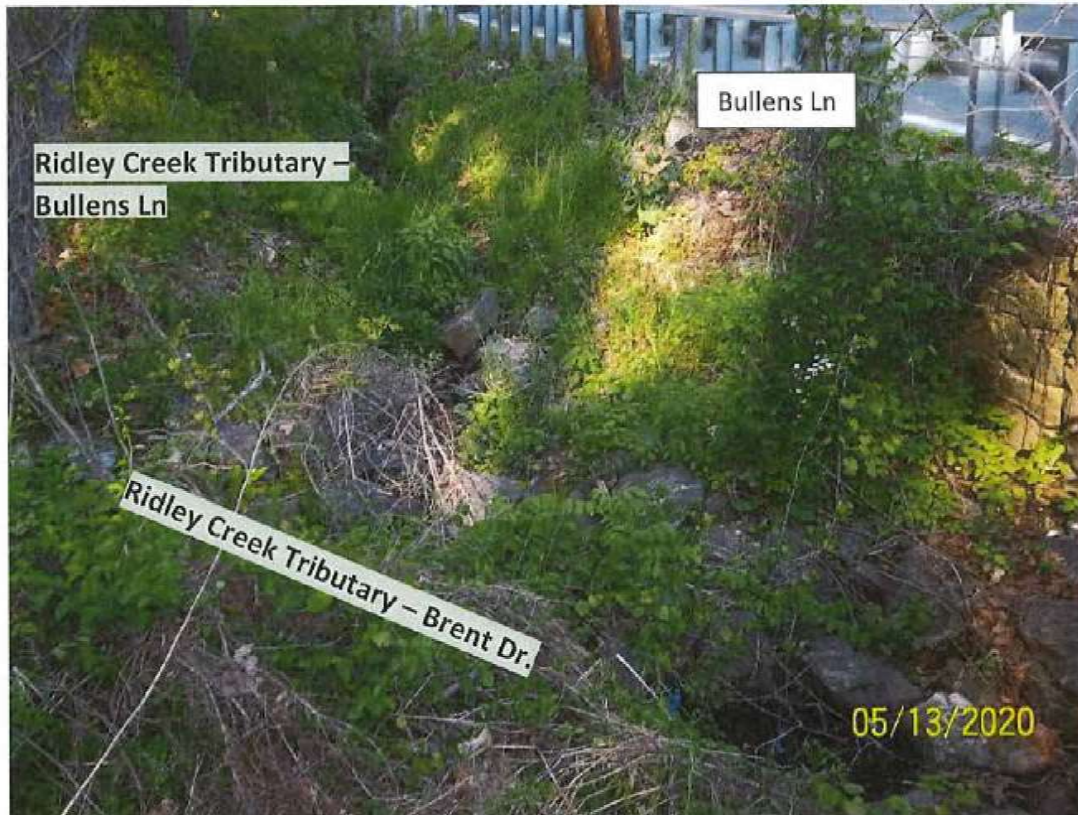


Figure 1. A second tributary (Bullens Lane) splits from the Ridley Creek tributary (Brent Drive) near the culvert.



Figure 2. Culvert under Bullens Lane where the Ridley Creek Tributary (Brent Drive) crosses.



Figure 3. Another image where Ridley Creek Tributary (Bullens Ln) splits from the Ridley Creek Tributary (Brent Dr).



Figure 4. Flowing water observed.

The following pictures (Figures 5 – 14) were taken in order follow the stream up to the start of the tributary where flowing water was observed about 400 ft from where it converges with the Ridley Creek Tributary (Brent Drive).



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14

Attachment 5

Tributary Investigation: Ridley Creek Tributary (Providence Road)

Ridley Creek Tributary

Nether Providence Township
83250-115MS4

Date: 9/29/2020





Figure 1. Dry Channel in the back of 418 Palmers Lane.



Figure 2. Dry Channel in the back of 418 Palmers Lane.



Figure 3. Water starting to flow between 418 and 420 Palmers Lane. Beginning of Tributary.



Figure 4. Flowing water observed.



Figure 5. Just downstream of the beginning of the tributary. Flowing water observed. Lot of grass clippings in tributary.



Figure 6. Photo of tributary in the backyard of 428 Palmers Lane looking towards beginning of tributary.



Figure 7. Headwall in the backyard of 428 Palmers Lane where tributary goes underground to cross East Rose Valley Road.



Figure 8. Flowing water still present before tributary goes into headwall.



Figure 9. Culvert on the south side of E Rose Valley Road. Tributary continues.



Figure 10. Side image of culvert.



Figure 11. Stream just below culvert.

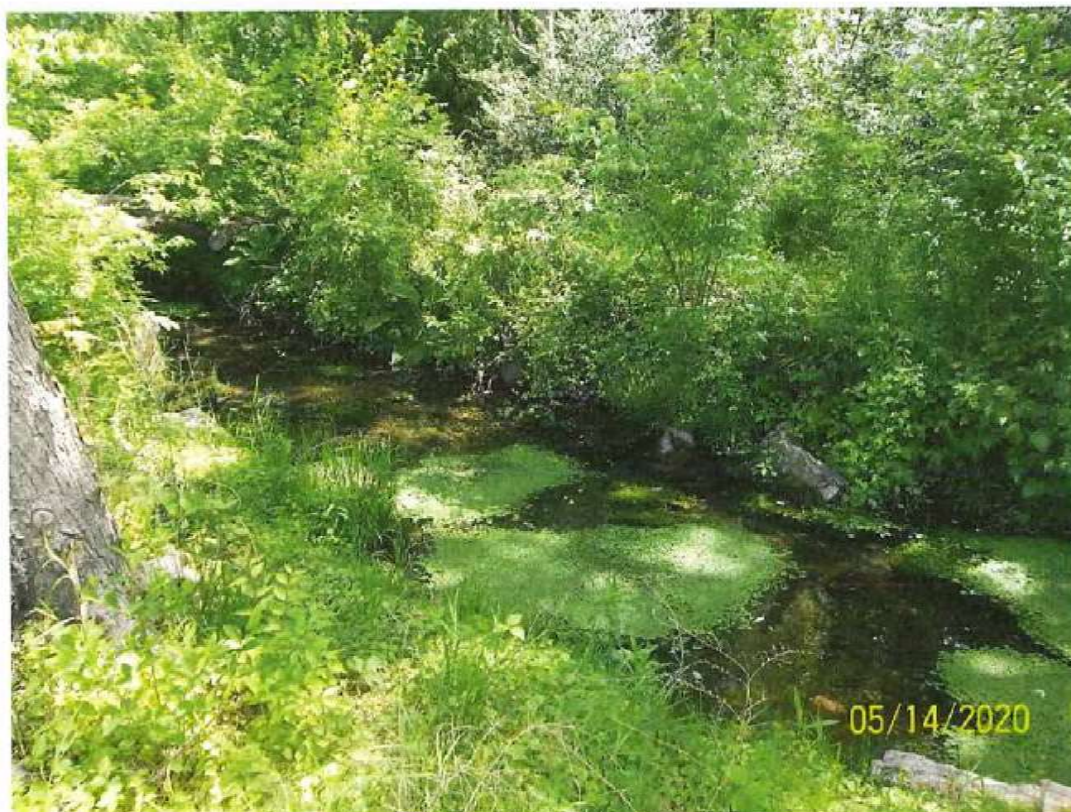


Figure 12. Stream just below culvert.