

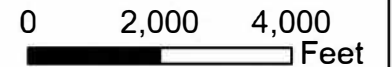
APPENDIX C

OPEN SPACE & NATURAL RESOURCES
SUPPLEMENTAL MATERIALS

Township Owned Open Spaces

Upper Dublin Township
Montgomery County, PA

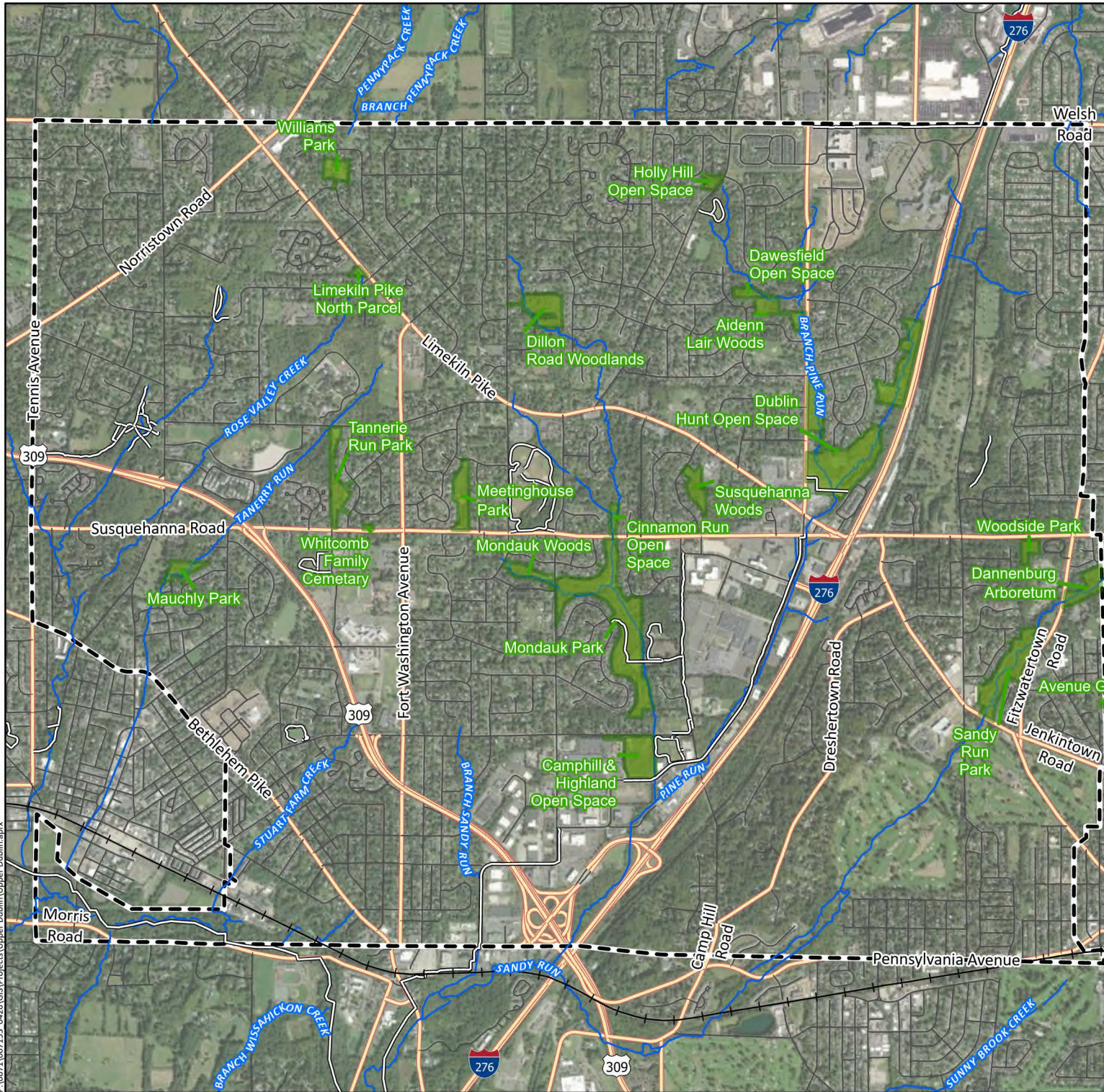
- Passenger Rail
- Trails
- Upper Dublin Township Open Space
- Montgomery County Streams
- Upper Dublin Township Boundary
- State Roads, PA Turnpike & US Routes
- County, Municipal, & Private Roads



Mapping derived from data provided by ESRI, PennDOT, and USGS.

9/6/2023 PM: TJS GIS: RBG QA: KCM R007153.0426

HRG
 501 Allendale Road
 Suite 203
 King of Prussia, PA 19406
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 www.hrg-inc.com

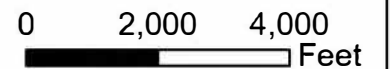


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Open Spaces & Preserved Land

Upper Dublin Township
Montgomery County, PA

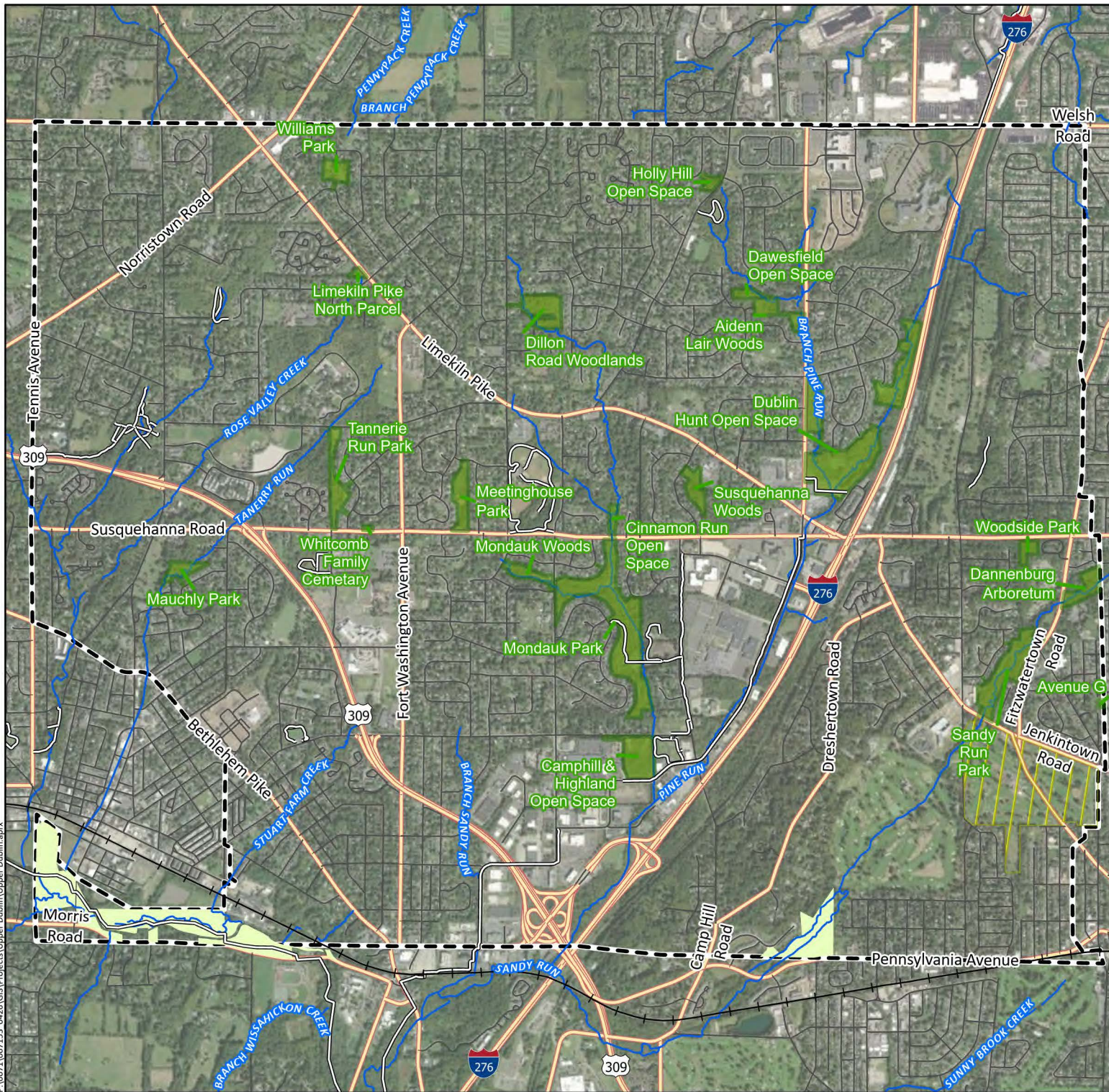
- Passenger Rail
- Trails
- Upper Dublin Township Open Space
- Montgomery County Streams
- Conservation Easement
- Wissahickon Trail Preserved Land
- Upper Dublin Township Boundary
- State Roads, PA Turnpike & US Routes
- County, Municipal, & Private Roads



Mapping derived from data provided by ESRI, PennDOT, and USGS.

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**Upper Dublin Township Open Space &
Environmental Resource Protection Plan Update**
Upper Dublin Township, Montgomery County, Pennsylvania



Site Assessment Report

LSI Project No. D-1781.1-22

October 28, 2022

Introduction

LandStudies, Inc. (LSI) conducted visual assessments of existing stream corridors within Priority 1 and Priority 2 Sites identified by Upper Dublin Township (see Attachment A) on September 30, 2022 (Sites 3-9), October 7, 2022 (Sites 10-12), and October 10, 2022 (Sites 1-2 and 13-18). The purpose of the visual assessments was to document the condition of the stream / floodplain in terms of stability and the condition of existing vegetation community at each site. This report includes: 1) a brief summary of observations made at each site; 2) qualitative ranking of stream / floodplain conditions and numerical ranking of vegetation conditions; and 3) general recommendations for improvements (if applicable).

Ranking of Existing Conditions

Vegetation rankings for canopy and understory were based on the following scale:

- | | |
|----------------|--|
| 1 = Excellent: | Full coverage, mature or healthy trees, dominantly native species, high species diversity |
| 2 = Good: | Full or majority coverage, young but healthy trees, dominantly native species, moderate species diversity |
| 3 = Fair: | Partial coverage, young but healthy trees, dominantly native species but some presence of invasives, minimal species diversity |
| 4 = Poor: | Sparse or no coverage, unhealthy trees, dominantly invasive species, minimal species diversity |

Stream channel rankings were based on the following scale:

- | | |
|-----------|---|
| Good: | Relatively stable channel with low banks, good connectivity with the floodplain, stable bed substrate, and no vertical and lateral degradation. |
| Moderate: | Moderate channel incision with bank heights generally 1-3', some lateral erosion, actively mobilized bed substrate, some access to floodplain. |
| Poor: | Deeply incised, active lateral erosion, unstable or non-existent bed substrate, minimal to no access to floodplain. |



Site Assessments

Site 1

Vegetation Observations

Site 1 consists of two areas within Aidenn Lair Woods including: 1) three parcels along Dreshertown Road, and 2) a parcel at the end of Avoca Drive. The two areas are connected by a narrow easement that extends to Dreshertown Road. Along Dreshertown Road, the canopy is generally sparse and dominated by black walnut within the stream corridor. An open meadow occupies most of the rest of the area except for where it is surrounded by a narrow, but generally good canopy. The understory along the stream corridor and around the open meadow is dominated by invasive species (multiflora rose and porcelain berry).

The Avoca Drive area has a generally good canopy. The understory is dominated by spicebush and multiflora rose. A relatively well-developed wetland system exists within the center of this area and drains toward the stream channel along the northeast limits of the site.

Stream Observations

The stream channel along Dreshertown Road is incised with bank heights of 3-4'. Lateral erosion is significant. A dam and pond exist immediately upstream of the site. Riprap armoring has been placed along some of the scoured banks directly adjacent to the road.

The Avoca Drive area includes a deeply incised (cut down to bedrock) stream channel with bank heights of 3-4' that is laterally eroding. Numerous depositional bars and debris jams exist within the channel. There is also a deeply incised ditch between Aidenn Lair Road and the stream.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
1	Dreshertown Road Area	3	4	Poor
	Avoca Drive Area	2	3	Poor

Recommendations

The restoration potential along both the Dreshertown Road area and the Avoca Drive area is good because of available space and likelihood of success. The recommended restoration approach for the main stem would involve a combination of filling the existing channel and cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian species.

Site 2

Vegetation Observations

Site 2 is within the Dawesfield Open Space area. A large portion of the site appears to have been cleared of vegetation recently, which has resulted in a sparse canopy. The understory is either very sparse or dominated by multiflora rose with some spicebush.

Stream Observations

The stream channel along the southeast edge of the site is a deeply incised (cut down to bedrock) stream channel with bank heights of 3-5' that is experiencing significant lateral erosion. Numerous depositional bars and debris jams exist within the channel. Several drainage features that flow into the stream are all downcutting to match the elevation of main stream.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
2	N/A	3	4	Poor

Recommendations

The restoration potential is good because of available space and likelihood of success. The recommended restoration approach for the main stem would involve a combination of filling the existing channel and cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. Incised ditches/gullies would be filled to elevations that existing prior to downcutting. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank

grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian species.

Site 3

Vegetation Observations

The site consists of a young, sparse canopy dominated by black walnut with occasional sycamore and red maple. The understory is relatively dense but dominated almost entirely by multiflora rose and porcelain berry with occasional spicebush.

Stream Observations

The stream channel is moderately to highly incised with bank heights 2-4' high with active lateral erosion along much of its length. In numerous locations, the channel has downcut to bedrock, which provides minimal in-stream habitat. The stream reach can be characterized by a series of short, steep riffles composed of cobbles plucked from eroding stream banks with long pools between riffles. Significant gravel deposition exists just upstream of the box culvert (14' wide by 7' high) under Susquehanna Road.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
3	N/A	3	4	Poor

Recommendations

The restoration potential is good because of available space and likelihood of success. The recommended restoration approach for the main stem would involve cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution.

Site 4

Vegetation Observations

Site 4 is bisected by the entrance driveway to the Mondauk Bark Park. The southwest half of the site consists of a relatively young, sparse canopy dominated by red maple and black walnut. The understory is sparse in some areas and very dense but dominated by invasive species (mostly multiflora rose and porcelain berry) in other areas. The understory is most dense along the stream channel. The northeast half of

the site has a better canopy and understory although multiflora rose is still quite prominent.

Stream Observations

The stream channel is moderately incised with bank heights of 1-3'. Lateral erosion is moderate. Bed materials are predominantly silt, which creates poor in-stream habitat. The bank profile is mostly silt with some small gravel at the bottom near the current bed elevation. A few debris jams were observed within the channel. The stream channel appears to be influenced by a backwater condition created by an existing dam control structure. The backwater condition causes deposition of fines (silt) within the channel. This aggradation explains why bank heights are generally lower than other sites within Mondauk Park.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
4	Northeast of driveway	2	2-3	Moderate
	Southwest of driveway	3	3	N/A

Recommendations

The restoration potential is low at Site 4 because the stream segment is quite small and is only experiencing moderate erosion as it is within the backwater influence of the dam control structure. With that said, it would make sense to include this short segment with any restoration efforts associated with Site 8. Vegetation improvements within Site 4 could include invasive species removal and installation of native riparian buffer.

Site 5

Vegetation Observations

The site consists of two general areas including: 1) main stem corridor, 2) tributary corridor (stream is within Site 8). The main stem corridor has a relatively young canopy with varying coverage and a dense understory that is dominated by multiflora rose, porcelain berry and some spicebush. The tributary valley has a relatively good canopy, but the understory is very sparse except for patches of multiflora rose.

Stream Observations

The stream channel is moderately to highly incised with bank heights 2-4' high and is experiencing active lateral erosion along much of its length. In numerous locations, the channel has downcut to bedrock, which provides minimal in-stream habitat. The stream reach can be characterized by a series of short, steep riffles composed of cobbles

plucked from eroding stream banks with long, silt-bottomed or bedrock-bottomed pool segments between riffles.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
5	Main Stem Corridor	3	4	Poor
	Tributary Corridor	2	4	N/A

Recommendations

The restoration potential along the main stem is good because of available space and likelihood of success. The recommended restoration approach for the main stem would involve a combination of filling the existing channel and cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian species.

Site 6

Vegetation Observations

This site has a sparse canopy dominated by black walnut and little to no understory (due to deer browse) except for an occasional box elder and some raspberry.

Stream Observations

The stream is a deeply incised ephemeral ditch that is pinned against residential properties to the west side of the site. Bank heights are generally 2-3' and lateral erosion is significant. The ditch begins at a 2-3' headcut at the property boundary in the northwest corner of the site. Existing tree roots have appeared to slow the advance of the headcut, but eventually these roots will be undermined and the headcut will continue to migrate upstream into the adjacent property. Significant deposition of gravel and debris (originating from vertical and lateral erosion upstream) was observed just upstream of the culvert under Dillon Road.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
6	N/A	3	4	Poor

Recommendations

Stream restoration potential is good with the understanding that some impacts to the existing vegetation would be necessary for access. The recommended restoration approach would involve filling the incised channel to match the original abandoned floodplain. The existing channel could be utilized as an access path to the greatest extent possible to minimize disturbance to the existing vegetation. Other improvements such as bank grading / stabilization could be implemented as an alternative, however the footprint of impact would be similar if not greater than the recommended approach and it would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian species.

Site 7

Vegetation Observations

This site has a relatively young canopy with varying coverage and a relatively dense understory that is dominated by multiflora rose and bush honeysuckle. An overhead utility easement crosses the site at the south end of the site near Pinetown Road.

Stream Observations

The stream channel is deeply incised (cut down to bedrock) with bank heights of 2-4' and is experiencing active lateral erosion. Bank heights are significantly higher where the stream is pinned against the right valley wall along the backyards of private residences. Dencutting has caused the channel to abandon its floodplain, which occupies most of the site.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
7	N/A	2	4	Poor

Recommendations

Stream restoration potential is good with the understanding that some impacts to the existing vegetation would be necessary for access. The recommended restoration approach would involve filling the incised channel to match the original abandoned floodplain. The existing channel could be utilized as an access path to the greatest extent possible to minimize disturbance to the existing vegetation. Other improvements such as bank grading / stabilization could be implemented as an alternative, however the

footprint of impact would be similar if not greater than the recommended approach and it would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian species.

Site 8

Vegetation Observations

The site consists of three general areas including: 1) west of the trail, 2) east of the trail, and 3) tributary corridor. In the area west of the trail, the canopy is relatively good with a mix of poplar, red maple, and black walnut. The understory is relatively sparse (due to deer browse) other than some spicebush. The area east of the trail has a relatively young canopy with varying coverage and an understory that is dominated by multiflora rose, porcelain berry and some spicebush. The tributary valley has a good canopy, but the understory is very sparse except for multiflora rose.

Stream Observations

This site includes a main stream and a tributary. The downstream end of the main stream has experienced significant gravel / sand deposition within a larger entrenched channel most likely due to the backwater condition created by the dam control structure further downstream. The stream appears to be periodically remobilizing portions of these depositional features during high flow events. Bank heights along the main stem are generally 2-3' with some higher banks along the valley margin. Lateral erosion is significant. Bed materials consist of mostly gravel and sand with some cobble. The tributary, which originates north of Pinetown Road flows into the main stem from the northwest. It is deeply incised (cut down to bedrock) with bank heights of 2-4' and active lateral erosion. Bank heights are significantly higher where the stream is pinned against the right valley wall along the backyards of private residences. Downcutting has caused the channel to abandon its floodplain, which occupies much of the space between the left bank of the stream and an abandoned rail/road grade to the northeast (on Site 5). In the area west of the trail, a large gully, approximately 3-5' deep, has formed between the main stem (just upstream of Site 9) and a 24" diameter culvert under Barton Drive. This gully is in the beginning stages of lateral migration and will continue to generate a source of sediment into the main stem.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
8	West of Trail	2	3	N/A
	East of Trail	3	4	Moderate to Poor
	Tributary Corridor	2	4	Poor

Recommendations

The restoration potential along both the main stem and tributary is good because of available space and likelihood of success. The recommended restoration approach for the main stem would involve a combination of filling the existing channel and cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution.

The recommended restoration approach for the tributary would involve filling the incised channel to match the original abandoned floodplain. The existing channel could be utilized as an access path to the greatest extent possible to minimize disturbance to the existing vegetation. Other improvements such as bank grading / stabilization could be implemented as an alternative, however the footprint of impact would be similar if not greater than the recommended approach and it would likely be a temporary fix, not a long-term solution.

Vegetation improvements throughout the entire site could include invasive species removal and installation of native riparian buffer along the stream corridors.

Site 9

Vegetation Observations

The site consists of a very minimal canopy except for some relatively young, black walnut, sycamore, and red maple along the stream. The understory is dense but dominated almost entirely by multiflora rose and porcelain berry.

Stream Observations

The stream channel is deeply incised with bank heights of 4-6'. The reach is relatively straight with minimal lateral erosion. Flows within this channel segment are controlled by the flood control structure located just upstream, which has likely influenced the lack of lateral migration. Bed materials consist of gravel, cobble, and bedrock. The bank profile is mostly silt with gravel / cobble at the bottom near the current bed elevation.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
9	N/A	4	4	Poor

Recommendations

The restoration potential is good because of available space (along the right floodplain) and likelihood of success. The recommended restoration approach would involve cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian buffer.

Site 10

Vegetation Observations

The canopy is relatively sparse and dominated by black walnut except for a few stands of more mature trees. The understory is either very sparse (from deer browse) or entirely dominated by invasive species (multiflora rose and porcelain berry). There is a perched wetland system along the right floodplain that is dominated by a healthy scrub-shrub layer consisting of mostly alder.

Stream Observations

The tributary to Pine Run is incised with bank heights of 2-3' and is experiencing active lateral erosion. The channel has cut down to bedrock for much of its length except for the upstream end where the bed materials are a combination of silt, sand, gravel and even clay. Depositional bars and debris jams are frequent along the reach.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
10	N/A	3	4	Poor

Recommendations

The restoration potential is good because of available space and likelihood of success. The recommended restoration approach would involve a combination of filling the existing channel and cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a

long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian buffer.

Site 11

Vegetation Observations

This site has a relatively good canopy and understory along a narrow 100-200' wide swath adjacent to PA 276. Along the stream corridor and right floodplain, the canopy is sparse with several areas of open meadow. The understory is dense with predominately invasive species (multiflora rose and porcelain berry). A sanitary sewer easement runs parallel with the stream along the right floodplain.

Stream Observations

Pine Run is a deeply incised perennial stream with bank heights generally 3-4' and significant lateral erosion. The typical bank profile exhibited 3' of legacy sediment over 1-2' of clay with gravels below the clay. Bed materials consist of silt, sand, and fine gravel. Depositional bars and debris jams are frequent along the reach. The stream enters the site at a box culvert (12' wide by 6' high) under PA 276. The first 100' of the channel is armored with gabion baskets. Several ditches have formed between stormwater outfalls and the channel. A series of offline mill ponds exist at the upstream end of the reach.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
11	Swath along PA 276	2	2	N/A
	Rest of Site	4	4	Poor

Recommendations

The restoration potential is good because of available space and likelihood of success. The recommended restoration approach would involve cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian buffer.

Site 12

Vegetation Observations

The majority of canopy is relatively sparse and dominated by black walnut except for an area at the northeast corner of the site (adjacent to an existing stormwater basin) and along the main stem where coverage is greater. The understory is relatively good, however there is still a presence of invasive species especially along the main stem.

Stream Observations

This site includes a main stem along the south side and a relatively steep tributary that begins at a series of spring seeps in the north half of the site and then flows into the main stem. The main stem is incised down to bedrock with bank heights of 4-5' making it disconnected from its floodplain. The tributary has developed lower elevation benches (depositional features that have become vegetated) within a larger entrenched channel along much of its length. These benches have created a low flow channel roughly 1-2' wide with bank heights of 1-2' and a gravel bed. Lateral erosion is generally minimal along both the main stem and tributary except for a few severely scoured banks.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
12	Main Stem	2	3	Poor
	Rest of Site including Tributary	3	2	Moderate to Poor

Recommendations

Stream restoration potential is good with the understanding that some impacts to the existing vegetation would be necessary for access. The recommended restoration approach would involve filling the incised channel to match the original abandoned floodplain. The existing channel could be utilized as an access path to the greatest extent possible to minimize disturbance to the existing vegetation. Other improvements such as bank grading / stabilization could be implemented as an alternative, however the footprint of impact would be similar if not greater than the recommended approach and it would likely be a temporary fix, not a long-term solution.

Site 13

Vegetation Observations

The canopy is generally sparse and dominated by black walnut along the majority of the stream corridor. The understory is dense but is dominated by Japanese knotweed and bush honeysuckle.

Stream Observations

Sandy Run is a much larger stream than other sites and has a significant sediment load consisting of predominantly sand and fine gravel. It is deeply incised with bank heights of at least 5' and is experiencing significant lateral erosion. Bed materials consist of gravel, cobble, and sand. Large depositional features exist at the downstream end, which can be attributed to a backwater condition caused by an undersized culvert under Limekiln Pike. A sanitary sewer line parallels the stream along the right floodplain.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
13	N/A	3	4	Poor

Recommendations

The restoration potential is good because of available space and likelihood of success. The recommended restoration approach would involve cutting the floodplain down to elevations closer to underlying basal gravels and groundwater, which would establish connectivity between the stream and the floodplain. This approach would provide the most long-term comprehensive solution to the instabilities observed while also significantly improving the diversity of aquatic and terrestrial habitat. This approach would be a significant initial cost. Alternative, less expensive (at least initially) improvements could include bank grading / stabilization, however it should be understood that this approach would likely be a temporary fix, not a long-term solution. Vegetation improvements could include invasive species removal and installation of native riparian buffer.

Site 14

Vegetation Observations

The canopy includes some large trees, especially along the valley wall adjacent to the left stream bank. Otherwise, the canopy is predominantly black walnut. The understory is almost entirely Japanese knotweed and bush honeysuckle.

Stream Observations

Sandy Run is generally straight through this site with bank heights of 5'. There is much less baseflow than in Site 13 and very significant depositional bars (composed of gravel and sand) have developed within the channel upstream of Fitzwatertown Road.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
14	N/A	3	4	Poor

Recommendations

The restoration potential is low at Site 14 due to limited space between the steep left valley wall as well as riparian tree plantings and an existing private residence on the right floodplain. Potential stream improvements could include bank grading / stabilization and periodic removal of depositional bars. Vegetation improvements could include invasive species removal and installation of native riparian buffer.

Site 15

Vegetation Observations

Vegetation was not assessed as directed by Upper Dublin Township.

Stream Observations

The stream channel is deeply incised (cut down to bedrock) and is experiencing severe lateral migration. The valley is steep and narrow. Minimal flow was observed within the channel. Significant depositional features (gravel bars and debris jams) exist within the channel especially at the downstream end near the box culvert (8' wide by 4' high, closed bottom) under Twining Road. Downcutting was likely initiated by the combination of culvert installation coupled with increased concentration of stormwater.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
15	N/A	N/A	N/A	Poor

Recommendations

Stream restoration potential is good with the understanding that some impacts to the existing vegetation would be necessary for access. The recommended restoration approach would involve filling the incised channel to match the original abandoned floodplain. The existing channel could be utilized as an access path to the greatest extent possible. Other improvements such as bank grading / stabilization could be implemented as an alternative, however the footprint of impact would be similar if not greater than the recommended approach and it would likely be a short-term solution.

Site 16

Vegetation Observations

The canopy is generally sparse but diverse throughout the site except for the west side where there is much greater coverage. The understory is generally free of invasive species except for a significant presence of bush honeysuckle on the east side of the site.

Stream Observations

The stream channel at the south side of the site is in very good condition. There is some minor scour in a few locations, but no major erosion was observed, and the channel is generally well-connected to its floodplain.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
16	West Side	2	3	N/A
	Rest of Site	3	3	Good

Recommendations

No restoration potential because the stream is generally stable. Potential improvements could include removal of bush honeysuckle and installation of native species.

Site 17

Vegetation Observations

Vegetation was not assessed as directed by Upper Dublin Township.

Stream Observations

The stream channel is deeply incised (cut down to bedrock) with bank heights of 3-5'. The valley is steep and narrow. There is some active bank erosion where the stream is pinned against the valley wall. Otherwise, erosion is relatively inactive except for flanking of an existing dam structure. No flow was observed in the channel upstream of the dam.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
17	N/A	N/A	N/A	Moderate

Recommendations

Potential stream improvements could include removal of the dam / pond and filling the existing channel to bring it closer in elevation to its abandoned floodplain.

Site 18

Vegetation Observations

The canopy is relatively good with a healthy population of red maple, tulip poplar and some hickory. The understory is dense and dominated by a combination of bush honeysuckle, Russian olive, and multiflora rose with some spicebush.



Stream Observations

The stream channel is a deeply incised (cut down to bedrock) ephemeral stream with average bank heights of 3-4', although there are several scoured bank heights that are significantly higher. The valley is steep and narrow. No flow was observed within the channel.

Rankings

Site	Sub-Area	Vegetation Ranking - Canopy	Vegetation Ranking - Understory	Stream Channel Ranking
18	N/A	2	3	Poor

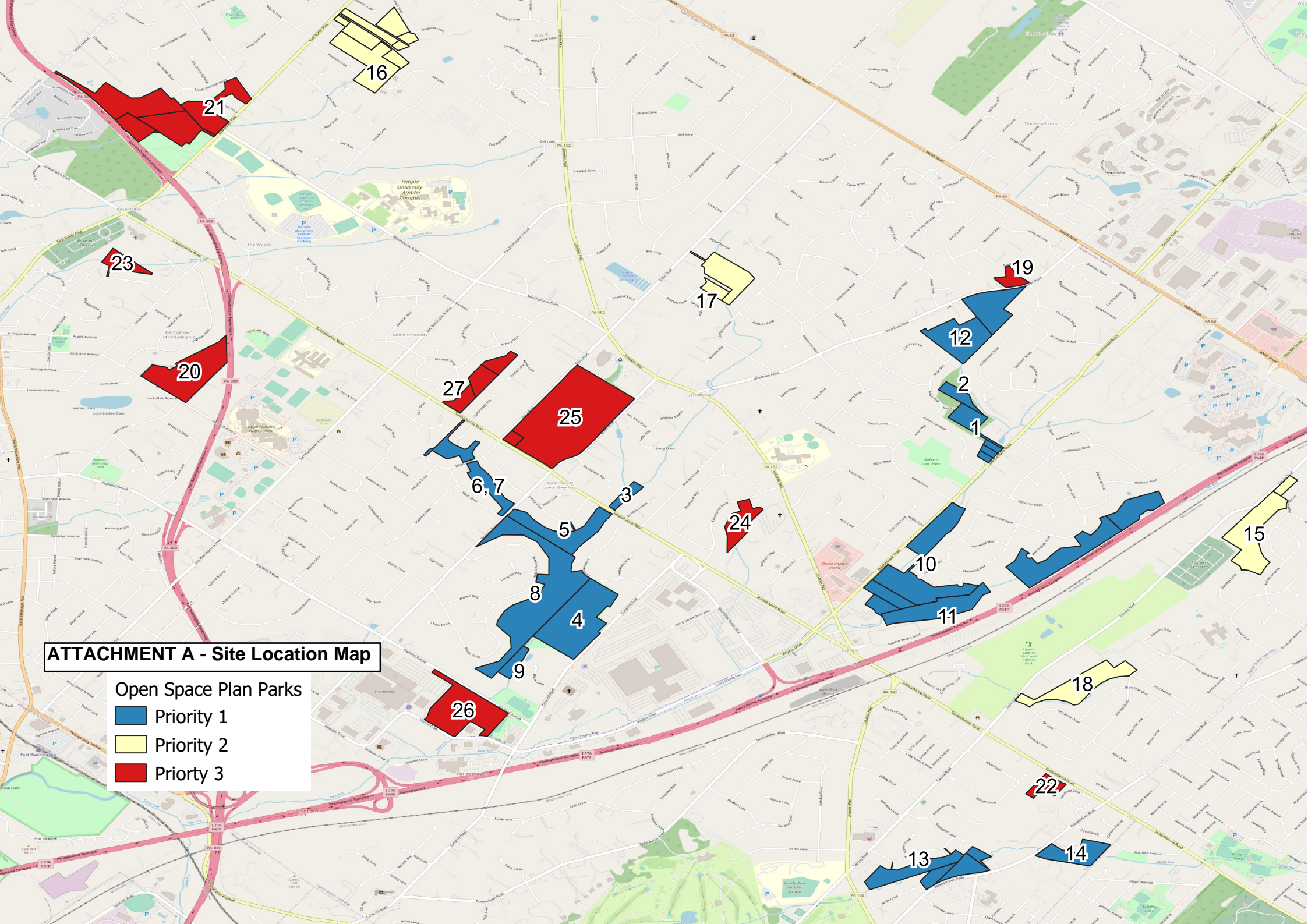
Recommendations

The restoration potential is low because of very limited space to do anything meaningful. Any available floodplain is occupied by private residences on the left side of the channel. Vegetation improvements could include invasive species removal (understory) and installation of native vegetation.

ATTACHMENT A - Site Location Map

Open Space Plan Parks

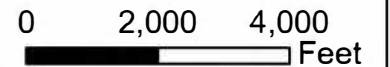
- Priority 1
- Priority 2
- Priority 3



Properties of Interest

Upper Dublin Township
Montgomery County, PA

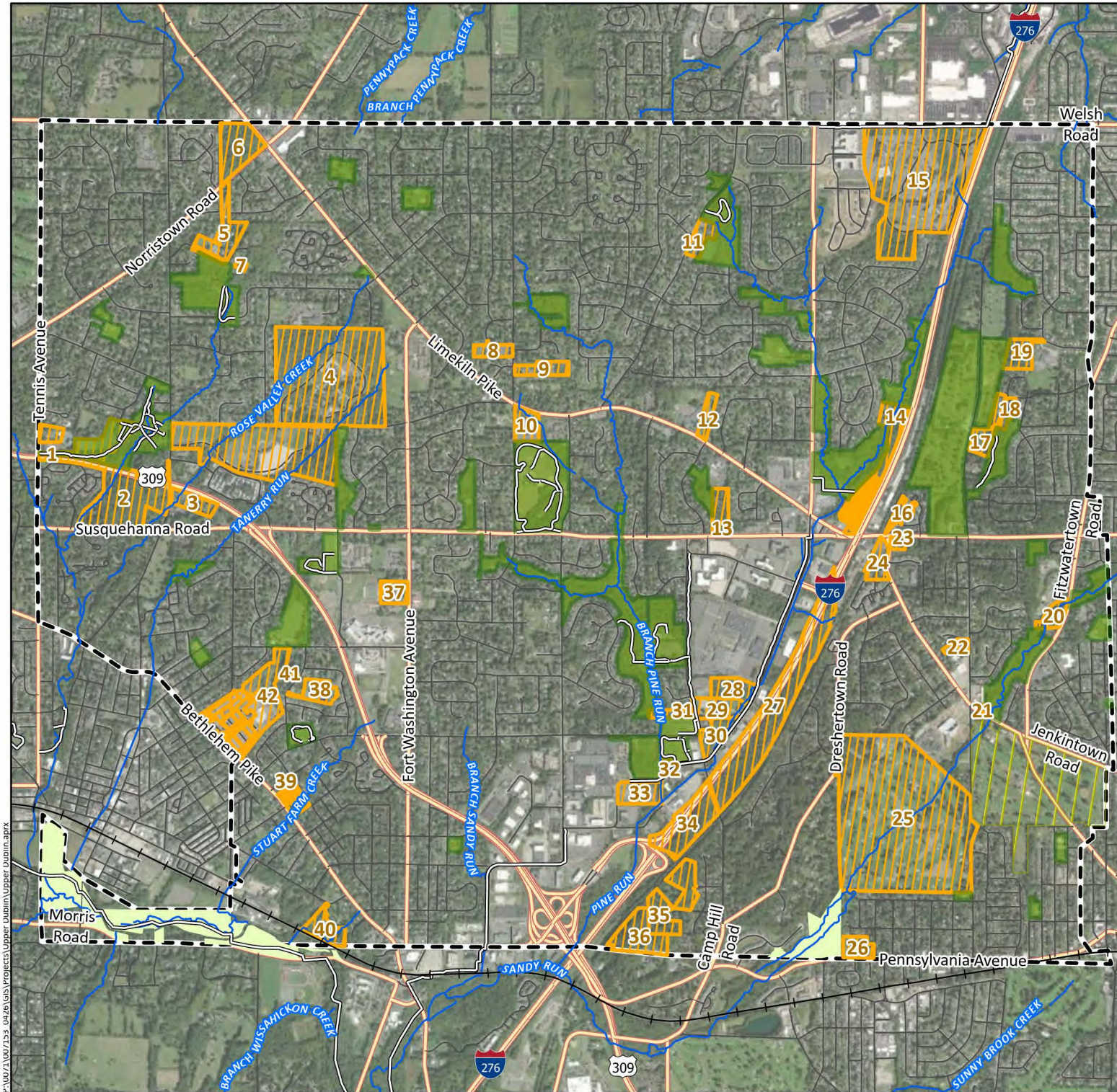
- Passenger Rail
- Trails
- Montgomery County Streams
- Conservation Easement
- Wissahickon Trail Preserved Land
- Upper Dublin Township Parks & Open Space
- Properties of Interest
- Upper Dublin Township Boundary
- State Roads, PA Turnpike & US Routes
- County, Municipal, & Private Roads



Mapping derived from data provided by ESRI, PennDOT, and USGS.

9/6/2023 | PM: TJS | GIS: RBG | QA: KCM | R007153.0426

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Properties of Interest

Upper Dublin Township - Open Space Plan
Updated September 2023

Key

A = Acquisition
CE = Conservation Easement
AE = Access Easement

Number	Owner	Address (Complete)	Acres	Notes	Type	If AE, Missing Connection #
1	RACQUET REALTY PARTNERS LLP (UD SPORTS)	680 Tennis Ave, Ambler, PA 19002	17.7	UDT and owners unable to reach agreement on property value 2021 – No updates	A / CE	
2	HART MARY N & JOSHUA F	Adjacent to 300 Susquehanna Rd, Ambler, PA 19002	43.1	2021 – Wissahickon Trails continuing conversation	A / CE	
3	YOAST JOHN S III & JUDITH M	1320 E Butler Pk, Ambler, PA 19002	6.6	2021 – No updates	A	
4	TEMPLE UNIVERSITY	580 Meetinghouse Rd, Ambler, PA 19002	181.9	Both the Fields and Academic side - area adjacent to woods There has been some previous discussion of the Township acquiring the parking lot and athletic field side This could be a potential asset for the youth sports organizations in the township, potentially the regional YSOs	Fields- A School - AE	8, 17
5	TWIN SPRING FARM REAL ESTATE PART LP (TWIN SPRING FARM DAY SCHOOL AND CAMP)	1632 E Butler Pk, Ambler, PA 19002	13.7		A / CE / AE	10
6	UPPER DUBLIN REALTY PARTNERS LP	1840 Norristown Rd, Maple Glen, PA 19002	17.3	2021 – Owner pursuing development; property cleared of trees post-tornado	A / AE	2
7	BROWN PAUL HARLAN & VIRGINIA B	1634 E Butler Pk, Ambler, PA 19002	0.8	Have had conversations with the Township about acquiring about 2 acres of their property.	A / AE	
8	MAPLE MANOR SWIM CLUB	1552 Dillon Rd, Maple Glen, PA 19002	4.7	UDT opened future plans discussion with BOD 2021 – No updates	A / CE / AE	23
9	FOX HUNT FARM LLC	1537 Dillon Rd, Maple Glen, PA 19002	6.5	Became available in 2009 – Sold in 2015 & 2017 2021 – No updates	A / CE	
10	TEMPLE SINAI	1401 Limekiln Pk, Dresher, PA 19025	7.5	For additional parking There is already an Access Agreement - Connection #18	A	
11	NEW HORIZONS MONTESSORI SCH ASSN	1701 Jarrettown Rd, Dresher, PA 19025	6.4	Adjacent to Pine Run Park expand parking for adjacent parkland, pathways, community building	A	
12	UPPER DUBLIN SCHOOL DISTRICT	1520 Limekiln Pk, Maple Glen, PA 19002	4.4		AE	28
13	RANKIN ALEXANDER & SHARON	1632 Susquehanna Rd, Dresher, PA 19025	7.5	2021 – No updates	A / AE	31
14	DRESHER WOODS CORP (HOA)	1716 N Limekiln Pk, Dresher, PA 19025	16.4	Interest in connecting Township property through this property and/or acquiring passive space portion of property adjacent to Township property	A / AE	35
15	PRUDENTIAL PROPERTY (BET INVESTMENTS INC)	2101 Welsh Rd, Dresher, PA 19025	115.0	Cross County Trail Connection On planning department radar already	AE	34
16	UPPER DUBLIN TOWNSHIP	Green Valley Cir, Dresher, PA 19025	3.6	Connection to Twining Valley	AE	36
17	RISKO CAROL G	1329 Twining Rd, Dresher, PA 19025	5.4	2014 - May be renewed interest with TVGC Study in progress 2019 – Spoke w/ Mr. & Mrs. Risko about UDT acquisition 2021 - Mr & Mrs. Risko are in regular contact and aware of UDT Interest	A / CE	
18	SHIRA 12 LLC (BURN BRAE ARTS)	3212 Woodland Rd, Dresher, PA 19025	9.0	2014 - May be renewed interest with TVGC Study in progress 2021 – No updates	A / CE / AE	39
19	SUNNY WILLOW SWIM CLUB	40 School Ln, Willow Grove, PA 19090	2.7	Original negotiation stalled; UDT continues pursuit of conservation easement & trail; Approached by SW Board in 2015 but nothing came to fruition 2021 – UDT reopened conversation about trail, conservation easements, dev rights, etc. 2022- UDT has prelim agreement in place for trail, utility and conservation easements	A / CE / AE	37, 37
20	ABINGTON TOWNSHIP	Fitzwatertown Rd, Glenside, PA 19038	5.2	2021 – No updates	A / CE	
21	SHARPE BRIAN L	1783 Limekiln Pk, Glenside, PA 19038	0.5	Access to Sandy Run	A	
22	MANORLU SWIM CLUB	850 Twining Rd, Dresher, PA 19025	2.96		A / CE	
23	NAK WON PRESBYTERIAN CHURCH	3364 Susquehanna Rd, Dresher, PA 19025	1.3		AE	36
24	SCHMIDT FREDERICK J JR	2038 S Limekiln Pk, Glenside, PA 19038	7.3	2018 – Letter of Interest mailed, but no reply 2021 – No updates	A	
25	MFG GOLF COUNTRY CLUB	511 Dreshertown Rd, Fort Washington, PA 19034	189.5	Manufacturer's G+CC - Privately held golf course 2021 – No updates	A / CE	
26	CHRISTS EVANGELICAL LUTHERN CHURCH	700 East Pennsylvania Ave, Oreland, PA 19075	6.1	Section of property adjacent to Piszek Preserve; looking for Trail Easement;	AE	48
27	WFP PENNLAND CO LP	Camp Hill Rd, Fort Washington, PA 19034	61.0	2018 – Explored possibility of a trail and could be cost prohibitive 2021 – No updates	A / AE	49, 50
28	WFP PENNLAND CO LP	Virginia Dr, Fort Washington, PA 19034	9.2	2021 – No updates	A / CE	
29	BELL TELEPHONE CO OF PENNA	1050 Virginia Dr, Fort Washington, PA 19034	9.6	2021 – No updates Already have an Access Easement - Camp Hill Rd & Virginia Dr, Verizon Building	Existing AE	
30	WFP PENNLAND CO LP	585 Camp Hill Rd, Fort Washington, PA 19034	8.4		A / CE / AE	52
31	TOLL THOMAS E JR &	1040 Camp Hill Rd, Fort Washington, PA 19034	3.4	2009 – Progress made with this homeowner & neighbor (#22); both considering outright purchase vs. easement; necessary for soft trail construction (Seg. 3-A) 2014 – No further progress. 2018 - Moved from Action List to Interest List. 2021 – No updates	A	
32	550 VIRGINIA DRIVE LLC	550 Virginia Dr, Fort Washington, PA 19034	1.8	2021 – No updates	A / CE	
33	PAMCPA REAL ESTATE LLLP	525 Virginia Dr, Fort Washington, PA 19034	9.5		A	
34	WFP PENNLAND CO LP	Camp Hill Rd, Fort Washington, PA 19034	21.9	2018 – Explored possibility of a trail and could be cost prohibitive 2021 – No updates	A / AE	36

35	SCHATZ GERALD	Scott Ln, Fort Washington, PA 19034	12.5	2021 – No updates	A / CE	
36	WORLDWIDE EVANGELIZATION FR CHRIST	709 Pennsylvania Ave, Fort Washington, PA 19034	16.1	2021 – No updates	A / CE	
37	GORDON MELISSA & WILLIAM R	1252 Fort Washington Ave, Fort Washington, PA 19034	6.1	2021 – No updates Last working farm in the Township	A / CE	
38	HIGHLAND PARK INC / FORT INVESTORS GROUP (FORT WASHINGTON SWIM CLUB)	1003 Farm Ln, Ambler, PA 19002	6.8	Many deed restrictions 2017 - Swim club owner reorganization 2021 – No updates	A / CE	
39	BROOKWOOD PROPERTY OWNERS ASSN	Bethlehem Pk, Ambler, PA 19002	4.1	Meadowbrook HOA By 603 Bellaire Ave between 500 and 600 block with Honey Run - for trail connection and open space	AE	57
40	BEVILACQUA MICHAEL A (FORT WASHINGTON DAY CAMP)	445 Ambler Rd, Fort Washington, PA 19034	8.7	2018 – For sale w/ \$1.4 million asking price 2019 – Will be selling and most likely being developed 2021 – Still available; being considered for commercial development 2022 - Property Sold	A / CE	
41	SENESE EDNA K TRUSTEE	1018 Farm Ln, Ambler, PA 19002	0.9	Property without House	A / AE	62
42	SBLP UPPER DUBLIN LLC	800 Grayson Ln, Ambler, PA 19002	89.5	For connectors from Upper Dublin via Mattison to Ambler	AE	62
	School District Playing Fields			Revisit or establish long-term agreements for access to/use of school district fields (specifically UDHS / Loch Alsh / FOD / SRMS / Maple Glen / Edwards / McInaw)		

**Upper Dublin Township
Properties of Interest
Consideration Worksheet**

Updated - 5.11.2023

Property Specific Characteristics	Priority	Response	Notes
Is this property adjacent to an existing park, open space property or other township property?	Medium	Select One: Yes _____ No _____	
How many acres is the property?	Low	Select One: Less than 1 acre _____ 1 to 3 acres _____ 3+ to 5 acres _____ 5+ to 9 acres _____ 9+ acres _____	90' baseball field is 4.5 acres 60' softball field is 1.5 acres 11 v 11 soccer field is 1.86 acres Minimum size of forest is 2.1 acres (300' x 300')
Does the property have historical structures on it or did a historical significant event occur on the property?	High	Select One: Yes _____ No _____	
Is the property located in a recreationally underserved area?	High	Select One: Yes _____ No _____	Goal is for every resident to have access to a park/open space within a 1/2 mile and/or 10 minute walk
How many households does the property serve within a 1/2 mile and/or 10 minute walk?	Low	Select One: 1 to 50 _____ 51 to 100 _____ 101 to 200 _____ 200+ _____	Goal is for every resident to have access to a park/open space within a 1/2 mile and/or 10 minute walk
Available Parking	Low	Select One: Yes _____ No, but space to add _____ No, with no space to add _____	Is there adequate existing parking, or space to construct parking, based on the proposed use of the property?
Does the property have existing deed restrictions?	Low	Select One: Yes _____ No _____	Deed restrictions could impact what can and cannot be done on the property.
Municipal Development Opportunities			
Opportunities this property presents based on community needs	Medium	Select All That Apply: Recreation Node = Up to 5 acres _____ Neighborhood Park = 5 to 10 acres _____ Community Park = 30 to 50 acres _____ Athletic Complex _____ Special Purpose Facility _____ Natural Resource Area/Preserve _____	NRPA Parkland Classifications
Satisfy Other Township Needs	Low	Select One: Yes (entire property) _____ Yes (part of property) _____ No _____	Examples: Stormwater Management Storage Facility Municipal Facility
Ecology & Environmental Value of Property			
What type of ecosystems are present on the property?	Low - High	Select All That Apply: Forest/Woodland (at least 2 continuous acres) _____ Forest/Woodland (less than 2 continuous acres) _____ Wetlands/Sensitive Drainage Area _____ Pond _____ Stream _____ Vernal Pond _____ Meadow (mostly native) _____ Meadow (mostly non-native) _____ Cool Season Grass _____	Minimum size of desired forest is 2.1 acres (300' x 300')
Is a stream present?	Low	Select One: Yes _____ No _____	If yes please answer sub-criteria questions below.
What condition is the stream channel in?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	
Is the stream a WWF, CWF or Trout Stocked?	Low - High	Select One, If Applicable: CWF _____ Trout Stocked _____ WWF Or None _____	CWF = Cold Water Fisheries WWF = Warm Water Fisheries

What condition is its bank in?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	
What is the width of the riparian buffer?	Low - High	Select One, If Applicable: 75+ _____ 50' to 74' _____ 25' to 49' _____ 1' to 24' _____ 0' _____	
What condition is the riparian buffer in?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	
Is the property within a floodplain/floodway?	Low - High	Select One: Yes (entire property) _____ Yes (part of property) _____ No _____	
What other water resources are present on the property?	Low	Select All That Apply: Groundwater Recharge Area _____ Headwater/Spring _____	
Is the property wooded or have vegetation?	Low	Select One: Yes _____ No _____	If yes please answer sub-criteria questions below.
How would you rate the overall the condition of the property's native vs. non-native vegetation.	Low - High	Select One: Excellent _____ Good _____ Average _____ Poor _____	Excellent - 75% to 100% native plants Good - 51% to 74% native plants Average - 50% native plants Poor - Below 50% native plants
If canopy trees are present, how would you rate their condition and the diversity of species?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	Excellent - There are a variety of native mature and young trees in great condition with 5 or more species present. Good - There are some native mature and young trees in good condition with 5 or less species present. Average - There are only mature trees (native & non-native) in a variety conditions with 5 or less species present. Poor - There are only mature trees (native & non-native) in poor or failing condition with less than 5 species present.
If understory trees are present, how would you rate their condition and the diversity of species?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	Excellent - There are a variety of native mature and young trees in great condition with 5 or more species present. Good - There are some native mature and young trees in good condition with 5 or less species present. Average - There are only mature trees (native & non-native) in a variety conditions with 5 or less species present. Poor - There are only mature trees (native & non-native) in poor or failing condition with less than 5 species present.
If herbaceous vegetation is present, how would you rate the condition and diversity of species?	Low - High	Select One, If Applicable: Excellent _____ Average _____ Poor _____	Excellent - The vegetation is in great condition with 10 or more species present. Good - The vegetation is in good condition with 10 or less species present. Average - There vegetation is in a variety of conditions with 5 or less species present. Poor - The vegetation is in poor or failing condition with less than 5 species present.
Does this property come up as a "hit" on a PNDI search?	Low or High	Select One: Yes _____ No _____	Pennsylvania Natural Diversity Index
Is this property within a Montgomery County Natural Area?	Low	Select One: Yes _____ No _____	

Does the property have any notable site conditions?	Low - High	Yes _____ If "Yes", what are they? _____ _____ _____ No _____	
Access / Connectivity Value of the Property			
Does this property provide an opportunity to create/begin/complete an identified Missing Connection within UDT?	High	Select One: Yes _____ No _____	<i>Reference Missing Connections identified in the Open Space Plan Update.</i>
How can the property be accessed?	Medium	Select All That Apply: Vehicular (public) _____ Vehicular (private) _____ Bicycle _____ Pedestrian _____	
Does the property have existing sidewalk access?	Low	Select One: Yes, trail _____ No, but space to add _____ No, with no space to add _____	
Does the property have existing trail access?	Low	Select One: Yes, trail _____ No, but space to add _____ No, with no space to add _____	
Does the property have existing right-of-way?	Low	Select One: Yes _____ No _____	
Does the property provide linkages to neighboring community resources?	Low	Select One: Yes _____ No _____	<i>Outside of UDT</i>
Is the property currently ADA accessible and able to provide a like experience for all visitors?	Medium	Select One: Yes _____ No, but could with work _____ No, not possible _____	
Recreational Value of Property			
Is this property suitable for recreation (passive or active)?	Low	Select One: Yes _____ No _____	<i>If yes please answer sub-criteria question below.</i>
<i>What type of recreation can be accommodated by this property?</i>	<i>Low</i>	Select One: Passive _____ Active _____ Both _____	
Does this property meet an identified active open space need?	High	Select One: Yes _____ No _____	
Development / Funding / Cost / Maintenance of the Property			
What is the goal(s) for this property?	Low - High	Select All That Apply: Acquisition _____ Conservation Easement _____ Development Rights _____ Access Easement _____	
Is the price per acre equivalent to market value?	Medium	Select One: Under market value _____ Equal to market value _____ Over market value _____	
Are there grant funds available to assist with the initial cost and/or development for this property?	Medium	Select All That Apply: Yes (Initial Cost) _____ Yes (Development) _____ No _____	
What is the likelihood of the Township's ease in acquiring or protecting this property?	High	Select One: High _____ Average _____ Low _____	
Is the property vulnerable to residential, commercial or industrial development?	High	Select One: Not Vulnerable to Development _____ Possibly Vulnerable to Development _____ Currently Vulnerable to Development _____	<i>Is the property vulnerable to development based on zoning, location, and site condition / characteristics.</i>
What is the Township's ability to manage the property?	High	Select One: No ability _____ Some ability _____ Full ability _____	