

# *Detweiler Park Master Plan*

— OFFICE OF PARKS AND RECREATION - DAUPHIN COUNTY - PA —



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# APPENDIX

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# Detweiler Park Natural Resources Inventory: Results and Recommendations



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## Executive Summary

A robust rapid inventory was conducted of the 411-acre Detweiler Park in support of a Site Master Plan in 2020. Results include 116 bird species, 11 amphibians, 7 reptiles, 21 mammal species, and hundreds of plant and insect species. Habitat types include 5 forest/woodland community types, meadows/fallow fields, wetlands, and stream resources alongside residential and agricultural land uses. Without question, the site’s biggest challenges involve controlling invasive plant populations and a current overpopulation of white-tailed deer (and the cascading negative effects of these stressors). Additional restoration opportunities include dam removal and stream restoration, multiple wetland enhancement projects, and the conversion of the currently hayed fields to highly functional tall grass meadows in support of grassland birds, the largest declining bird group on the planet currently.

A combination of forest, meadow, and waterways management plans are included in this report to provide guidance on how to specifically address these concerns and develop a robust and highly functioning mosaic of habitat types at Detweiler Park. Surveys this year support the significant potential for increasing both abundance and diversity of biota to enhance the overall user experience and contribute to outstanding stewardship of Pennsylvania’s great natural resources.

## Acknowledgements

We would like to thank the many amazing people who support this effort, especially Dauphin County, the technical committee members, the Simone Collins design team, and citizen scientists (especially Mark Embeck) for sharing qualified observations from many regular visits to the site all year.



## Introduction

Applied Ecological Services (AES) was hired to conduct an ecological assessment of Detweiler Park, a 411-acre property located in Dauphin County, Pennsylvania. Detweiler Family privately owned the site for multiple generations and they recently gifted the land to Dauphin County to be included into their parks system. Stipulations of this land acquisition insist that the site is protected and stewarded for its natural history and aesthetic beauty. In order to adequately manage the site in a manner that protects existing natural heritage, restores degraded areas, and provides safe access for the public, the project team performed a rapid assessment and analysis of the existing ecological conditions.

Using a variety of peer-reviewed and standardized methods, AES (in concert with other project team members and key project stakeholders) developed a custom study of this site to establish a baseline data set of wildlife, plants, water and wetland resources, upland habitat types, and other important variables. The following report details the selected methods, results, and a set of ecological recommendations for thoughtful management of wildlife populations, botanical diversity, and the creation, stewardship, and protection of a mosaic of habitat types to support these biotic elements at Detweiler Park.

## Methods and Materials

The site has been the focus of a variety of interested parties over the past few years which resulted in the collection of a variety of data sets that can support this ecological assessment. Various natural history data have been collected prior to our assessment that can aid in understanding the site and save time when analyzing the site. These data sets are referred to as secondary data (pre-existing information). Our collected data in support of this project is referred to as primary data. Secondary data sets include e-Bird records, plant lists, and other previously collected data sets. We would like to thank all contributors and compilers of pre-existing data in support of this project (see acknowledgments section). Primary data include the following onsite methodologies.

## Rapid Ecological Assessment

A team of AES ecologists visited the site in the winter, spring, and summer months to walk the site in its entirety in search of indication of various ecological stressors and examples of intact habitat types. ArcCollector was used to spatially align observations throughout the site for aid in mapping and location-specific recommendations. Some of the primary goals of this rapid assessment included:

- Searching for combinations of abiotic and biotic features that might serve as critical habitat for rare, threatened and/or endangered species known to the region.
- Locating any intact habitat locations that are free of invasive plant and/or animal pressure.
- Locating any representation of forest ecosystems that have all strata present (canopy, understory, and groundstory) and evidence of forest regeneration.
- Finding locations that show physical evidence of erosion within the drainage systems on site.
- Finding locations of any impediments to drainage/flow or faunal migration within the stream systems



- Identifying sections of forested landscape with need for thinning, clearing, or other timber management needs/opportunities for ecological enhancement
- Documenting invasive plant species populations for development of an invasive species management plan

For succinct alignment of various data sets and recommendations, the site was separated into distinct Management Units (MUs). All forested MUs were aligned with the forestry report for ease of comparison.

## Plants

The primary method used for botanical data collection onsite was timed meanders within each of the identified MUs on site. This involved setting a fixed time and walking through each polygon collecting notes on species presence and relative abundance as well as condition and observable functionality. An example of a functionality indicator is a low shoot to root ratio of invasive species that can indicate an imbalance of nutrient cycling and anthropogenic input. Survey events were scheduled to maximize detection of various blooming plants as follows:

Table 1. Plant Survey Timing

Season	Targets	MUs
Early Spring	Spring Ephemerals	All
Late Spring	Woody Plants, Spring Ephemerals	All
Summer/Early fall	Wildflowers, Grasses	All

Primary goals for plant surveys were to characterize vegetation communities, locate any rare plants/rare plant habitats, and to document invasive species throughout the park.

## Birds

Previous studies by Dauphin County naturalists used a transect-style method to collect bird data at Detweiler. AES conducted point counts at 10 locations on site at Detweiler Park to systematically collect avifaunal data using Unlimited Distance, Single-Observer Point Counts. Both methods are effective in characterizing the avifaunal communities on site. Transects cut through multiple habitat types whereas point count locations are typically selected to represent a particular habitat type. Since future data collection efforts will likely be conducted by the Dauphin County naturalists and volunteers, the future data collection methodology will be their prerogative however the chosen point counts will be a viable option moving forward. Both (point counts and transects) can be valuable methods to track ecosystem function by virtue of bird presence/absence in the various onsite habitat types.

## Herpetofauna

A robust survey for documenting reptiles and amphibians (collectively, herpetofauna) often requires multiple survey methods and significant effort through spring, summer, and fall months. These faunal assemblages have very low detection probabilities and, as ectotherms, are heavily reliant on external variables for metabolic function and life history activities. For this reason, a variety of systematic trapping is often required to confirm presence/absence. While this level of detail is not required for supporting this design, understanding the herpetofaunal community at



Detweiler Park as best possible allows us to minimize impacts to existing populations and maximize the integration of critical habitats and safe mobility between these critical habitats by frogs, toads, salamanders, snakes, turtles, and lizards on site. AES enacted three survey methods on site that do not require scientific collection permits, labor-intensive survey methods, or trapping and tracking infrastructure (ex. pitfall traps, hoop nets, radiotelemetry, etc.). The combination of these survey methods has proven to result in a near-comprehensive (~75% of all species detected) inventory of a herpetofaunal assemblage in our region. These three methods are described below.

### Time (and Area) Constrained Searches (TCS)

TCS involved visiting the site at the proper times of day in spring, summer, and fall months when weather conditions are suitable for reptiles and amphibians to be surface active or concealed on the surface (rather than being underwater, buried in soil, or in burrows). Areas were delineated by the Management Units (and sub-units). Optimal conditions usually involve temperatures between 60- and 85-degrees Fahrenheit with some cloud cover and low to no wind. Precipitation (or recent rain) can be a valuable factor for certain species, with recent rain being ideal. These searches included using binoculars and spotting telescopes to search for basking turtles and snakes in water bodies, carefully searching under cover objects (logs, stones, and debris piles) for concealed snakes, salamanders, and anurans, and carefully searching for active/moving reptiles and amphibians in various habitats. Strict conservation etiquette was enacted when searching, making sure to replace logs and stones as found and carefully removing any found animals prior to replacing these objects to prevent injury of the animals. All found animals are released unharmed at the location where found.

### Calling Anuran Surveys

Following the protocols for the [North American Amphibian Monitoring Program \(NAAMP\)](#), biologists visited the site on warm rainy (or humid) nights to listen for calling male frogs and toads near various water resources on site. Primary targets were stream, pond, and vernal pool habitats located on site. Please refer to the hyperlink provided above for full protocol and data sheet template.

### Random Opportunistic Sampling

While on site conducting other data gathering exercises, the lead field biologist would pause to search locations for herpetofauna when conditions (weather, time of day, season, etc.) were appropriate. This involved similar search methods to the TCS methodology but in an opportunistic nature.

### Mammals

With a diverse mosaic of habitat types, geology, soils, and other environmental factors, the site has potential to support a wide array of mammal species. Like the herpetofaunal approach, the team enacted low-cost and efficient methods to develop a general understanding of the mammal communities on site without completing a comprehensive assessment using the following methods.

### Camera Trap Survey

AES located three primary habitat types onsite for camera trap deployment (upland conifer woodlands, upland hardwood forest, and streamside emergent wetland). Moultrie M-50 Series camera were set on February 02, 2020 at pre-selected locations. They were collected on April 06, 2020. All were set to high PIR sensitivity, no delay, with 3 images captured per trigger (movement).

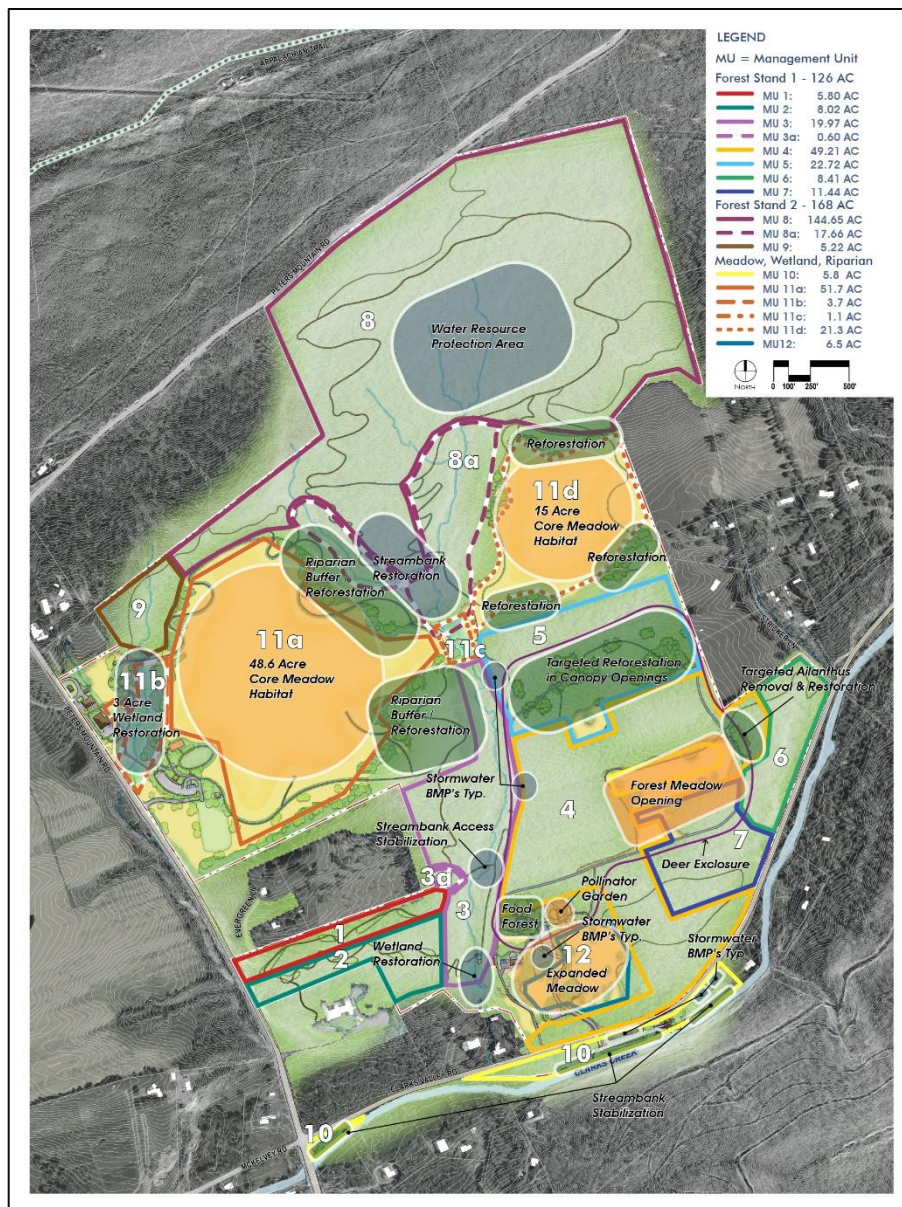
## Scat and Track Analysis

AES biologists and ecologists targeted stream margins, wet soil on trails, and other suitable locations on site to review tracks left by mammals traversing the site. Additionally, any encountered scat, hair, bones, or evidence in the landscape (buck rub, burrows, nests, cavities, etc.) were documented as evidence of mammal presence and, whenever possible, identified to the species level.

## Results

### Rapid Ecological Assessment

Ecological conditions are sectioned into Management Units that are consistent with the Forestry Stewardship Plan for ease of interpretation. Please note a few additional MUs in this report as well.





## MU 1 Conifer Planting (NW)

This linear section is comprised of row plantings of Norway spruce (*Picea abies*) and a transition to a fallow/old field which results in a sparse mix of colonizing hardwood trees and shrubs. Canopy breaks from dead and dying conifers offer some light penetration but the space is otherwise a closed canopy. Deer herbivory, bedding, and game trails are excessive in this section. The combination of thick conifer needle beds, little light penetration, and excessive browse pressure has limited vegetative growth within the understory and groundstory strata. The northernmost margin abuts an old field that is dominated by invasive grasses, forbs, shrubs, vines, and trees especially Japanese stilt grass (*Microstegium vimineum*), garlic mustard (*Alliaria petiolata*), bush honeysuckle (*Lonicera maackii*), Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), wineberry (*Rubus phoenicolasius*), mile-a-minute (*Persicaria perfoliatum*), oriental bittersweet (*Celastrus orbiculatus*), a grape vine (*Vitis* sp.), Callery pear (*Pyrus calleryana*), and crabapple (*Malus* sp.). Very few native trees are colonizing this area and include black cherry (*Prunus serotina*), tulip poplar (*Liriodendron tulipifera*), red maple (*Acer rubrum*), American holly (*Ilex opaca*), sassafras (*Sassafras albidum*), and American beech (*Fagus grandiflora*).

Native vines and forbs found in this section include common greenbrier (*Smilax rotundifolia*), poison ivy (*Toxicodendron radicans*), yellow fumewort (*Corydalis flavula*), Canada goldenrod (*Solidago canadensis*), and American alumroot (*Heuchera americana*).

*Wildlife Value in MU1* – Conifer stands, even non-native ones, can provide important habitat for nesting raptors especially Cooper’s hawks (*Accipiter cooperi*), red-tailed hawks (*Buteo jamaicensis*), broad-winged hawks (*Buteo platypterus*), and great horned owls (*Bubo virginianus*), various breeding passerine especially pine warbler (*Setophaga pinus*) and red-breasted nuthatch (*Sitta canadensis*), migrant passerine especially golden-crowned kinglet (*Regulus satrapa*), and game birds in extreme winters such as wild turkey (*Meleagris gallopavo*). That said, there is an abundance of conifer plantings on the site and our preliminary investigations revealed a paucity of current wildlife value in this stand. The northernmost edge is comprised of a thicket of non-native shrubs and vines as it transitions to the adjacent old field. This structure is providing habitat for wintering and migrant passerine as well as some resident species, especially sparrows, towhees, and juncos (collectively, Emberizidae), cardinals, and wrens (Carolina and house). White-tailed deer (*Odocoileus virginianus*) are bedding in the area and the concentration of scat indicates a very dense population of deer.

No wetlands are present in this tract, but wood frogs (*Lithobates sylvatica*) and American toad (*Anaxyrus americanus*) have been observed traversing this area. Additionally, timber rattlesnakes (*Crotalus horridus*) have been observed in and along brush piles in this part of the park.

*Recommendations* – Thin conifer planting by 50-75% (harvest for pulp) following the highest BMPs for timber extraction to minimize soil disturbance and other onsite features. This will open the canopy and allow for significant growth in the understory and groundstory strata. These strata will colonize aggressively with invasive plant species if not managed properly. A combination of winter brushing (cut and stump-treat with herbicide and a bark-penetrating oil) should occur to remove all non-native shrubs and vines prior to tree removal. The entire polygon should be seeded with a native, upland, shade-tolerant mix. Clusters of native shrub and tree (hardwoods and white pine) plantings should occur, and herbivory protection/fencing must be established around each cluster. Annual spot treatments for foliar herbicide application will be necessary for at least the first 5 years. Do not plant red maple, tulip poplar, or black cherry as these will likely colonize naturally. Target white pine (*Pinus strobus*), various oak species (*Quercus* spp.), and a variety of shrubs such

as dogwoods (*Cornus* spp.), witchhazel (*Hamamelis virginiana*), and viburnums (*Viburnum* spp.) and understory trees including American holly (*Ilex opaca*), chokecherry (*Aronia arbutifolia*), and serviceberry (*Amelanchier* spp.). Establishing good shrub thickets will provide significant wildlife value at this location and allow for a nice birdwatching loop close to the parking lot at the DCNR building.

### MU 2 Conifer Planting (SW)

Contiguous to the south of MU1, MU2 is very similar except has less edge effect from the field to the north, resulting in even less plant diversity and a near-absent shrub stratum and sparse groundstory. While the canopy is nearly entirely closed (planted rows of conifers), a few dead and dying spruce trees allow light to reach the forest floor which results in a suite of the same invasive plants and few early successional trees (black cherry and red maple, mainly). The planted tree diversity appears slightly more diverse, with the inclusion of white pine (*Pinus strobus*) and eastern hemlock (*Tsuga canadensis*) Recommendations for this parcel should be identical to MU 1.

### MU 3 Riparian Zone (South)

While this section of forest is rife with invasive plants it remains a largely intact riparian woodland with a functional stream (primary tributary to Clark's Creek), stream-associated wetlands, hardwood slope forest. Most of this parcel consists of uplands on the west side of the tributary creek. The dominant tree in this section is tulip poplar (*Liriodendron tulipifera*) and a variety of other hardwood trees are present such as pin oak (*Quercus palustris*), red oak, (*Quercus rubra*), white oak (*Quercus alba*), red maple (*Acer rubrum*), black cherry (*Prunus serotina*), and white ash (*Fraxinus americana*). One invasive tree species, tree-of-heaven (*Ailanthus altissima*), is also present here and should be removed. The ash trees are suffering death from emerald ash borer (*Agrilus planipennis*) but will remain standing and serving as wildlife habitat for many more years.

Understory (shrubs and small trees) layer is nearly entirely non-native throughout this section. Primary plants include multiflora rose (*Rosa multiflora*), Japanese barberry, wineberry, and bush honeysuckle. In some locations these invasive shrubs are draped by a series of vining invasives, especially mile-a-minute, oriental bittersweet, and a grape.

Groundstory conditions varies greatly along this corridor, but are largely dominated by invasive plants, such as Japanese stilt grass (*Microstegium vimineum*) and garlic mustard (*Alliaria petiolata*), Hearty native plants that still occur here include Christmas fern (*Polystictum aristichoides*), mayapple (*Podophyllum peltatum*), and yellow fumewort. Sparse populations of trout lily (*Erythronium americanum*) can be found along the stream bank along with other scattered native species (see plant list).

*Wildlife Value* – The proximity to water and native tree canopy allows this space to continue to provide significant value for wildlife, especially birds and small mammals. The highly invaded ground story limits mobility by certain amphibians and reduces habitat quality for reptiles, but these groups are found here as well. Wood frogs and spotted salamanders are both breeding in the shallow upper portions of the pond. It is highly likely that frogs, toads, and salamanders overwinter underground and in large rotting logs and stump holes on this slope, especially within 100 meters of the pond. Retain coarse woody debris in this area (and leave fallen and felled trees in this area). Additionally, a large diversity of migratory songbirds was observed here in spring and a high diversity of breeding songbirds in the summer.



*Recommendations* – Increased invasive species colonization on this slope is resulting in increased erosion, causing direct negative impacts to the stream and stream-associated pond. The primary recommendation for this section is strategic removal of invasive shrubs in concert with plant replacement (planting new trees and shrubs). Clusters of restoration-grade trees and shrubs can be planted and fenced as groups (rather than individual tree tubes). Sections for forest floor that are riddled with invasive grasses and forbs should be killed with herbicide and followed up with hand-sowing of a shade-tolerant native seed mix. After establishment of perennial plants via seed, a pre-emergent herbicide can be used to suppress stilt grass in this area. No native trees should be removed from this section. All non-native trees especially tree-of heaven (*Ailanthus altissima*) should be cut, stump-treated, and removed. There is a forestry subset (MU3a) that is a white pine planting. Climbing vines and the least healthy of these pines should be removed but the retention of this native stand, albeit planted, is critical for birds in all seasons as well as other wildlife.

#### MU 4 Conifer Planting (Central)

This conifer planting is like MU 1 & 2 but has a higher concentration of white pine. The understory is very sparse (mostly conifer needles) with few native volunteer trees, such as black cherry (*Prunus serotina*). All areas where disturbance has occurred and along the margins, especially the eastern border, are colonized by invasive shrubs, mostly multiflora rose (*Rosa multiflora*) and bush honeysuckle (*Lonicera maackii*) and vines, especially oriental bittersweet (*Celastrus orbiculatus*), mile-a-minute (*Persicaria perfoliatum*), and grape (*Vitis* sp.). Because this is a larger tract with trails throughout there is a special “cathedral-esque” feel to this space. The southern parts of this MU slope southward towards Clarks Creek and results in some topographic relief and stormwater drainage. This results in seasonal wetlands occurring and some added botanical diversity and wildlife habitat.

Margins of this MU that are near small clearings and adjacent to the orchard space are being used by edge-breeding birds. Snakes, box turtles, and amphibians are regularly observed here.

*Wildlife Value*– The current wildlife value in this MU is limited due to a lack of structural diversity and food resources apart from the margins of clearings and the wetlands in the south section. These should be the first areas of enhancement to further promote the productivity of these spaces via removal of invasives plants in the hardwood riparian and wet woods sections. Significant bird activity was observed in both migrations (spring and fall) as well as during the breeding season, especially the margins of the orchard area. Frogs, toads, and salamanders are breeding and foraging in these wet depressions. Eastern box turtles, eastern garter snakes, and a wide variety of mammals, including white footed mouse, red squirrel, eastern gray squirrel, eastern chipmunk, eastern cottontail, skunk, red fox, woodchuck, coyote, white-tailed deer have all been observed using these edge woods. The value of this space is largely reliant upon the functionality of the adjacent orchard area where a native old field condition is present.

*Recommendations*– Enact a variety of forestry methods here. Harvest trees using both clear cut (small areas) and selective thinning methods. Hand-distribute a shade-tolerant seed mix and plant shrubs and seedling hardwood trees (primarily oaks and hickories) in the spaces where trees are cleared. Erect temporary deer exclusion fencing to prevent deer herbivory of these newly planted areas. Cut a 12” section out of each non-native vine on trees in this MU and stump treat. Start with the outermost/edges and work inward. Return each spring to spot spray all resprouts. Do your best to pull the dead vines down from the trees but allow for them to die and decay over time. Plant additional native shrubs along margins of this parcel. Another alternative to smaller temporary

fencing is to consider erecting a long-term deer exclusion fence around this and other neighboring MUs to eliminate the problem of deer when attempting to regenerate for forest.

### MU 5 Conifer Planting (NE)

Similar conditions and recommendations for MU4 apply here. The biggest difference is that MU5 is bordered to the north by a large grassland parcel. As a north-facing edge, the invasive vines and shrubs vary slightly but are still present. The eastern edge has a small area of planted tamarack (*Larix laricina*) within the Norway spruce. As a species that allows more light penetration, there is a greater diversity of plants in the understory here. Most plants growing here are non-native and require active maintenance to restore a native plant community. The border by the trail has advanced invasive vine colonization that is in threat of killing trees. The western edge slopes towards the onsite tributary to Clark's Creek and results in a few small rills. There are noticeably less invasive plants on this side.

*Wildlife Value* – The heterogeneity caused by the tamarack patches on in the eastern section of this MU is supporting some successional and edge-breeding birds, such as eastern towhee (*Pipilo erythrophthalmus*) and gray catbird (*Dumetella carolinensis*). The northern border is supporting nesting birds that also require open grassland habitat, such as indigo bunting and eastern kingbird.

*Recommendations* – Similar recommendations as MU4 apply here. The primary need is to remove the invasive vines along the eastern edge of the MU. The rills that flow toward the onsite tributary stream should be seeded and planted with native plants to capture and slow sheet flow during rain events. These areas are currently unvegetated.

### MU 6 Clark's Creek Riparian Forest (East)

This section of woods is dominated by hardwoods trees such as tulip poplar, shagbark hickory, white oak, red oak, black oak, and red maple. Steeper sections have exposed boulders. Despite native trees, the understory and groundstory are largely simplified by deer herbivory. The southernmost part of this MU is a sandy knoll that is supporting a dry forest condition not found anywhere else on site. While impacted by deer herbivory, a relict oak-pine heath woodland is present. A possible pitch pine (*Pinus rigida*) is present amidst mostly oak trees. The understory is dominated by lowbush blueberry (*Vaccinium angustifolium*), huckleberry (*Gaylussacia baccata*), Indian hemp (*Apocynum cannabinum*), and other short, sandy-soil shrubs and wildflowers. There is one patch that has been colonized by tree-of-heaven along a swale north of the sandy knoll along the trail that should be removed and replaced with native shrubs and a shade-tolerant native seed mix.

*Wildlife Value* – This forest tract connects larger parts of the site to Clark's Creek. Numerous game trails are evident in this area. A high diversity of birds was observed here in migration as well as breeding season. The change in topography offers added structure for snakes (exposed boulders and fallen wood) and likely supports both onsite venomous snake species as well as other, non-venomous species. Despite being a small parcel, this is a high value MU for wildlife.

*Recommendations* – Remove invasives outwardly from the sandy knoll to prevent encroachment and modifications to this community. Eradicate the stand of tree-of-heaven (cut and remove the wood, stump treat each tree, and spot spray resprouts) and replace with shrubs and small trees. Protect from deer herbivory.



## MU 7 Hardwood Forest (SE)

There are sections of this MU that were fields approximately 40-60 years ago, as evidenced by even-aged hardwood trees growing in. Due to deer herbivory pressure, there is no recruitment of native trees or establishment of native shrubs in the understory, resulting in a simplified condition. The lack of structural diversity is reflected in the faunal and floral performances (low diversity).

*Wildlife Value* – Similar to MUs 4&6, this MU connects the larger upland sections of the site to Clark's Creek and therefore provides an important forested corridor. Ephemeral pools and drainageways in this area support frogs and salamanders. A decent breeding interior forest bird and edge forest/woodland bird community was observed here but the wildlife value is degraded and has significant potential for increased diversity.

*Recommendations* - This is a location where some hardwood trees could be selectively harvested for a one-time forestry/ecological improvement effort. After consulting with an ecologist, flag trees for removal. Replicate the clustered native planting strategy (described in above MUs) in areas where trees are removed. Open the canopy, combat invasive species, and prevent deer herbivory. This combination can drastically increase the diversity of plants, animals, and physical structure of this MU.

## MU 8 Upland Hardwood Forest

In general, this slope consists of a good diversity of hardwood tree species (oaks, hickories, beech, maple, and few basswood) and there are numerous boulder outcrops emerging from otherwise shallow soils. There is very little woody plant regeneration due largely to herbivory by mammals (mostly deer, presumably). There are sections of invasive plants in the understory and herb layers that are manageable and should be eradicated in concert with a planting plan. For example, as you ascend the trail on the east side of the loop you encounter a patch of Japanese stilt grass (*Microstegium vimineum*) that should be eradicated and seeded with a native cover crop, native seed, trees, and shrubs.

One of the two primary drainages on site starts on the west side of this hillslope. It is impacted from the west by the neighboring tract being high-graded. Emerging erosion rills are evident. Proper habitat restoration here needs to start right at the property line to proactively mitigate this increasing sheetflow runoff issue as high up in the watershed as possible. A series of e-matting, coir logs and grade control will capture, slow, and disperse sheet flow of stormwater on this slope to retard the ongoing issue. There is already a knickpoint that is un-zippering the stream (low order) that must be stopped by slightly more involved design. Inclusion of rock veins, step pools, and, in one section, soil lifts will prevent the increasingly dramatic erosion of this stream channel.

There are riparian sections along this stream that are hayed to the margin of the water. These need to be planted (increase riparian buffer). We can easily delineate these and provide plant community details and maintenance protocols.

*Wildlife Value* – This large tract of sloped forest has a very high wildlife value. With a complex groundstory of exposed boulders, soils of varying depths, headwater seeps and wetlands, and patches of both invaded/simplified and diverse native communities there are varying critical habitats for ground nesting birds, reptiles, amphibians, and aquatic insects. The canopy is largely closed and mature for second growth. It is supporting a healthy interior forest breeding bird community as well as a high-functioning tree-dependent mammal community that includes fisher

(*Pekania pennanti*), North American porcupine (*Erethron dorsatum*), gray fox (*Urocyon cinereoargenteus*), flying squirrel (*Glaucomys Volans*), raccoon (*Procyon lotor*), and multiple tree-roosting bat species. There are critical habitat areas for at least two species of state interest vertebrates (timber rattlesnake and cerulean warbler). Improving habitat for both can be completed with a one-time tree removal in concert with a restoration plan (planting, deer protection, maintenance, and monitoring).

*Recommendations* – The understory/shrub and understory tree layer) is sparse and, where present, is dominated by invasive shrubs. Active removal of all invasive shrubs should be enacted in this MU, followed by control of invasive grasses and forbs such as stilt grass and garlic mustard, respectively. After significant control of these elements, locate individual trees for removal to open canopy and promote regeneration. This will require active seeding, planting, deer herbivory protection, and strategic maintenance. Once robust perennials are established in these areas a surgical removal of emerging invasives should be enacted. To prevent possible loss of native seed bank, try to prevent use of pre-emergent herbicides in this MU unless the area is heavily invaded by stilt grass with no other successful management efforts.

### MU 9 Upland Forest West

This small section of woods is younger than adjacent woods and has some non-natural topography. Please see the forestry report for additional details.

### MU 10 Clark's Creek Riparian Forest (South)

This is a narrow band of forested habitat between Clarks Creek and Clarks Valley Road. Sparse eastern hemlocks infected with hemlock wooly adelgid are present. Limited understory is present. Most birds heard from this location were calling from across the creek or upslope across the road and represented a stream bottomland community including Acadian flycatcher (*Empidonax virescens*), Louisiana waterthrush (*Parkesia motacilla*), gray catbird, and tufted titmouse (*Baeolophus bicolor*). The area suffers from some erosion and site trampling. Strategic plantings and seeding of shade-tolerant forbs and graminoids will aid in stabilizing soil and add structural complexity.

### MU 11a Airfield Meadow

The Airfield meadow is currently managed as a hay meadow, harvested annually. Only a sparse number of natives are found in this meadow, such as common wood sorrel (*Oxalis stricta*), common milkweed (*Asclepias syriaca*), purpletop (*Tridens flava*), and little bluestem (*Schizachyrium scoparium*). Primarily, the field is comprised of favorable forage and common weeds such as barnyard grass (*Echinochloa crus-gali*), orchard grass (*Dactylis glomerata*), a crab grass (*Digitaria* sp.) and various clovers (*Trifolium* spp.). Most of this field slopes to the south with the apex in a flatter area in the center running east-west. A watershed divide is present, with most of the field draining into the primary sub-watershed via a swale. Sheetflow runs off to the west from less than half of the field into the secondary onsite drainageway. This site is supporting hearty obligate grassland breeding birds like eastern meadowlark (*Sturnella magna*), grasshopper sparrow (*Ammodramus savannarum*), and a small population of bobolink (*Dolichonyx oryzivorus*) and facultative species including red-winged blackbird (*Agelaius phoeniceus*), field sparrow (*Spizella pusilla*), and song sparrow (*Melospiza melodia*).



### MU 11b Palustrine Emergent Wetland and Stream (West)

This is the secondary drainageway (see waterways section in recommendations). The course flows from MU9 into the northwest corner of the meadow. Passing through a small section of fallow field, a few dead snags exist that are support cavity nesting birds and field edge species. The stream passes through two culverts which concentrate the energy of water resulting in streambank erosion and elevation drop. A wetland exists to the east of the stream that appears to have been hydrologically altered, likely due to the stream erosion lowering the water table in the immediate vicinity. This stream and associated wetland have significant opportunity for restoration. Please refer to the recommendations section for guidance.

### MU 11c Palustrine Emergent Wetland and Stream (Central)

This section of open, largely herbaceous wetland community was historically forested. On the east side of the stream is a stream-associated wetland that is supported by numerous small seeps and stormwater runoff. The current plant community is dominated by obligate wetland plants and is approximately 75% native.

*Wildlife Value* – Camera traps observed regular passage and foraging by raccoons, cottontail rabbits (*Sylvilagus floridanus*), eastern striped skunk (*Mephitis mephitis*), American mink (*Neovison vison*), eastern coyote (*Canis latrans*), and white-tailed deer in this wet meadow. Some of the wetland plants occurring in MU11c are only found here out of the whole Detweiler site and are therefore important for supporting a variety of host-specific insects, especially skipper butterflies (*Hespera* spp. See list). Additionally, a nice diversity of adult dragonflies was regularly observed hunting this field. Multiple eastern box turtles (*Terrapene c. carolina*) were found to be overwintering along the stream bank and within the palustrine emergent wetland in this reach.

*Recommendations* - Opportunities to enhance this open canopied wetland feature include consideration of some light grading to increase hydrology, overseeding, and clearing of woody plant encroachment. The vegetation community is still dominated by native hydrophytic and fac-wet species but is being invaded by non-natives. Restoring the hydrology (via raising the stream bed elevation) would better reconnect the wetland to the stream. However, seepages occur here as well, and the site would benefit greatly from invasive species control (mechanical and possibly chemical if surgical) and the overseeding and stewardship of establishing native plants. Additionally, this area should be occasionally mowed (in winter) to prevent woody plant colonization.

### MU 11d David's Field

This field is currently being hayed. This keeps the space woody plant-free but is limiting the ability for a diverse wildlife assemblage to be supported.

*Wildlife Value* – In its current state this field is supporting a small population of grasshopper sparrows, eastern meadowlarks, and field sparrows. Converting this to a functional meadow consisting of native forbs and grasses will greatly increase the value of this site for insects, reptiles, amphibians, grassland birds, and mammals.

*Recommendations* – Mow low and dethatch. Install similar mixes proposed for the Airfield Meadow using a tractor drawn Truax native seed drill immediately after mow/dethatch. Include a cover crop (native annual rye). Return multiple times in years 1-5 post establishment to proactively

control colonizing invasive species. Be tolerant of non-natives that do not behave invasively or become outcompeted over time.

### MU 12 Frankie’s Dogleg Loop Meadow

This is a nicely established old field condition full of grasses, wildflowers, trees, and shrubs. Continue to maintain as-is with primary effort being removal of invasive plants and overseeding/planting native plants.

*Wildlife Value* – This site is currently supporting a robust early successional bird community, foraging amphibians and reptiles, and mammals. Continued maintenance of this site will keep this highly functioning.

### MU 13 Homestead

This MU consists of the homestead building, formal plantings around it, and mowed lawn. The entire space is managed and non-natural. Formal management using native plants as best possible is encouraged alongside lawn and exotic planting maintenance.

### Plants

Timed Meander Surveys – A total of 176 plant species were documented while conducting TCS at Detweiler. While this is not a comprehensive botanical inventory this list does document all dominant plant species on site as well as most plant species occurring on the property. This list can be used as a foundation for developing a comprehensive inventory of the site in the future. Due to the size of the list, we are providing it in a separate document upon request.

### Invasive Species Mapping

Perhaps the biggest ecological issue on the site is the prevalence of invasive species. During site data collection AES ecologists took note of dominant invasive plant colonies per Management Unit to aid in a structured approach to controlling and eliminating these species concurrent with native plantings and seeding. In general, the leading edge of an invasive plant colony is the priority for combatting the species, as this is where intact habitat is being simplified by the invading plant. For all MUs please focus efforts on the leading edges of invasive plant colonies and work your way into the interior. Primary invasive species and methods of removal are as follows:

Table 2. Most Common Invasive Species at Detweiler and Management Guidance

<b>Plant Type</b>	<b>Species</b>	<b>Treatment Method(s)</b>	<b>Season</b>	<b>Follow-up</b>
Graminoid	Japanese stilt grass ( <i>Microstegium vimineum</i> )	Foliar application of diluted herbicide with surfactant	Just prior to seed set (June/July)	MUST return in 2-3 weeks and seed in native grasses and forbs (and native annual cover crop)
Graminoid	Japanese stilt grass ( <i>Microstegium vimineum</i> )	Mechanical removal (hand-pull or weed whack) just prior to seed maturation (bag and remove material)	June	Immediately seed in native mix, cover crop, and straw mulch
Graminoid	Johnson grass ( <i>Sorghum halepense</i> )	Foliar application of diluted herbicide with surfactant	July	Must return in 2-3 weeks. Hand distribute native seed mix



Graminoid	common reed ( <i>Phragmites australis</i> )	Combination of mowing and herbicide application until eradicated (must have aquatic herbicide applicator license)	First mow in spring, spray in fall, re-spray in follow-up spring	If possible, plug and seed in with emergent wetland plants after eradicated. Follow-up with spot sprays proactively each spring to prevent colonization
Graminoid	reed canary grass ( <i>Phalarus arundinaceae</i> )	Combination of mowing and herbicide application until eradicated (must have aquatic herbicide applicator license)	First mow in spring, spray in fall, re-spray in follow-up spring	If possible, plug and seed in with emergent wetland plants after eradicated. Follow-up with spot sprays proactively each spring to prevent colonization
Forb	Canada thistle ( <i>Cirsium arvense</i> )	Foliar application of diluted herbicide with surfactant OR cut and bag seed heads while in late flower. Repeat for multiple years until seed bank is exhausted.		If large areas are sprayed there should be a seeding in its stead to prevent other invasives from colonizing
Forb	Mugwort ( <i>Artemisia vulgaris</i> )	Foliar application of diluted herbicide with surfactant for large colonies. Smaller clusters can be hand pulled prior to seed set	Spray or pull in early fall (before seeds mature)	
Forb	spotted knapweed ( <i>Centaurea stoebe</i> )	Foliar application of diluted herbicide with surfactant	Spray when in flower (August)	DO NOT mechanically remove/touch. This is a known carcinogen.
Forb	Lesser celandine ( <i>Ficaria verna</i> )	Very difficult to eliminate without removing topsoil	Consider mechanical removal plots in early spring	If removed, seed and plug in bare soil areas with riparian forbs, grasses, and shrubs
Forb	garlic mustard ( <i>Alliaria petiolata</i> )	Hand-pull in April & May. Bag and remove material	Consider planting plugs or seeding where pulling	As a biannual, you will need to revisit each area for at least four years hand-pulling prior to seed maturation to prevent recolonization
Vine	Oriental bittersweet ( <i>Celastrus orbiculatus</i> )	Cut vines and stump treat with herbicide/oil mix via sponge	Winter	Revisit cut vines in the following spring. Sport spray with diluted herbicide with surfactant when leafed out
Vine	Japanese honeysuckle ( <i>Lonicera japonica</i> )	Hand pull and shear from shrubs/trees in the winter. Stump treat any vines larger than ½ "in diameter	Winter/early spring	Revisit to spot spray resprouts

Vine	frost grape ( <i>Vitis vulpina</i> )	Cut vines and stump treat with herbicide/oil mix via sponge	Winter	A native that behaves invasively. Consider leaving it in openings in forest but cutting along woodland edges where it dominates and threatens to pull down trees
Vine	English ivy ( <i>Hedera helix</i> )	Cut from trees and stump treat with herbicide/oil mix via sponge	Winter	Revisit cut vines in the following spring. Sport spray with diluted herbicide with surfactant when leafed out
Vine	grape vine ( <i>Vitis</i> sp.)	Cut vines and stump treat with herbicide/oil mix via sponge	Winter	Likely native but if behaving invasively should be cut back
Vine	mile-a-minute ( <i>Persicaria perfoliatum</i> )	Hand-pull (with gloves!!!) from shrubs and trees. Bag and remove material	Spring and summer	Must revisit each year. Spot spray colonies not on live beneficial plants.
Shrub	Japanese barberry ( <i>Berberis thunbergii</i> )	Cut stems and stump treat with herbicide/oil mix via sponge	winter	Revisit to spot spray resprouts in late spring
Shrub	bush honeysuckle ( <i>Lonicera mackii</i> )	Cut stems and stump treat with herbicide/oil mix via sponge	winter	Revisit to spot spray resprouts in late spring
Shrub	wineberry ( <i>Rubus phonesicolasius</i> )	Cut stems and stump treat with herbicide/oil mix via sponge	winter	Revisit to spot spray resprouts in late spring
Shrub	multiflora rose ( <i>Rosa multiflora</i> )	Cut stems and stump treat with herbicide/oil mix via sponge	winter	Revisit to spot spray resprouts in late spring
Shrub	European privet ( <i>Ligustrum vulgare</i> )	Cut stems and stump treat with herbicide/oil mix via sponge	winter	Revisit to spot spray resprouts in late spring
Tree	Norway maple ( <i>Acer platanoides</i> )	Cut and remove wood or "drill and fill" and leave dead snag standing	Winter	Revisit to spot spray resprouts in late spring
Tree	tree-of-heaven ( <i>Ailanthus altissima</i> )	Cut and remove wood. Stump treat with herbicide and basal bark penetrating oil	Winter	Revisit to spot spray resprouts in late spring



## Birds

Unlimited Distance, Single Observer Point Counts and anecdotal observations were combined to generate this list. AES conducted 4 separate point counts at Detweiler (January 6th, April 7th, May 13th, and June 4th) in 2020 and multiple anecdotal/opportunistic observations to characterize bird use in various seasons at the site. This, again, is not a comprehensive assessment but can be used in conjunction with other qualified bird data sets to develop a comprehensive list. A total of 116 species were observed. Of these, 26 are recognized in the PA State Wildlife Action Plan and Species of Greatest Concern (SGCN). One species (blackpoll warbler) is recognized and PA state endangered (but not breeding on site) and no PA state threatened species were observed. These species represent interior forest, open meadow, shrubland/successional, wetland, and woodland species. This highlights not only the diversity of habitats at Detweiler, but also accentuates the potential to increase both diversity and abundance of regionally important birds at this site.

Table 3. Birds Observed in 2020 at Detweiler Park

Alpha Code	Common Name	Scientific Name	Observation Status by Management Unit*												
			MU 1	MU 2	MU 3	MU 4	MU 5	MU 6	MU 7	MU 8	MU 9	MU 10	MU 11	MU 12	MU 13
ACFL	Acadian flycatcher	<i>Empidonax vireescens</i>			B							B			
AM.KE	American kestrel	<i>Falco sparverius</i>											FO		
AMCR	American crow	<i>Corvus brachyrhynchos</i>	B	B	Fo	O	O				O		FO		
AMGO	American goldfinch	<i>Carduelis tristis</i>			Fo	Fo	B	B	Fo				Fo	B	
AMRE	American redstart	<i>Setophaga ruticilla</i>			B	M		B		B					
AMRO	American robin	<i>Turdus migratorius</i>	M	M		B	B		M	B	B	B	FO	B	
AMWO	American woodcock	<i>Scolopax minor</i>				M				M				MU12	
BAEA	bald eagle	<i>Haliaeetus leucocephalus</i>											FO		
BAOR	Baltimore oriole	<i>Icterus galbula</i>			B			B		B		B			
BARS	barn swallow	<i>Hirundo rustica</i>											Fo	Fo	
BAWW	black-and-white-warbler	<i>Mniotilta varia</i>			M			M		B					
BBWA	bay-breasted warbler	<i>Setophaga castanea</i>			M			M		M					
BCCH	black-capped chickadee	<i>Poecile atricapillus</i>				Fo	Fo			B	Fo			Fo	
BGGN	blue-gray gnatcatcher	<i>Poliophtila caerulea</i>			B			B	M	B					
BHCO	brown-headed cowbird	<i>Molothrus ater</i>	O		B		B		M	B				B	
BHVI	blue-headed vireo	<i>Vireo solitaria</i>			M			M		M				M	
BLJA	blue jay	<i>Cyanocitta cristata</i>	Fo	B		B	Fo		Fo	B	Fo		FO	Fo	
BLVU	black vulture	<i>Coragyps atratus</i>											FO	FO	

BLWA	Blackburnian warbler	<i>Setophaga fusca</i>			M			M		M				
BOBO	Bobolink	<i>Dolichonyx oryzivorus</i>										B		
BPWA	blackpoll warbler	<i>Setophaga striata</i>			M					M				
BRCR	brown creeper	<i>Certhia americana</i>			B									
BRTH	brown thrasher	<i>Toxostoma rufum</i>					B						B	
BTBW	black-throated blue warbler	<i>Setophaga caerulescens</i>						M		M				
BTNW	black-throated green warbler	<i>Setophaga virens</i>			M			M		M				
BWHA	broad-winged hawk	<i>Buteo platypterus</i>								P		P	FO	FO
CACH	Carolina chickadee	<i>Poecile carolinensis</i>						O	O					
CANG	Canada goose	<i>Branta canadensis</i>											FO	FO
CARW	Carolina wren	<i>Thyothorus ludovicianus</i>					B	B		B		B		
CEDW	cedar waxwing	<i>Bombycilla cedrorum</i>	Fo	Fo		Fo	Fo						FO	Fo
CHSP	chipping sparrow	<i>Spiza passerina</i>				B	B						Fo	B
CHSW	chimney swift	<i>Chaetura pelagica</i>											FO	
CMWA	Cape May warbler	<i>Setophaga tigrina</i>			M					M				
COGR	common grackle	<i>Quiscalus quiscula</i>	Fo					O	O				FO	
COHA	Cooper's hawk	<i>Accipiter cooperii</i>	B							O			FO	
CORA	common raven	<i>Corvus corax</i>					O			O			FO	
COYE	common yellowthroat	<i>Geothlypis trichas</i>			B			B				B	B	B
CSWA	chestnut-sided warbler	<i>Setophaga pennsylvanica</i>			M			M		M				M
DCCO	double-crested cormorant	<i>Phalacrocorax auritus</i>											FO	
DEJU	dark-eyed junco	<i>Junco hyemalis</i>	W	W	W		W		W	W				W
DOWO	downy woodpecker	<i>Dryobates pubescens</i>	Fo				B	B		B				Fo
EABL	eastern bluebird	<i>Sialis sialia</i>					B			B			Fo	B
EAKI	eastern kingbird	<i>Tyrannus</i>					B			B			Fo	B
EAME	eastern meadowlark	<i>Sturnella magna</i>											B	
EAPH	eastern phoebe	<i>Sayornis phoebe</i>			B		B			B			Fo	B
EASO	eastern screech owl	<i>Megascops asio</i>								B				

EATO	eastern towhee	<i>Pipilo erythrophthalmus</i>				B		B	B		B			Fo	B	
EAWP	eastern wood-pewee	<i>Contopus virens</i>						B		B					Fo	
EUST	European starling	<i>Sturnella vulgaris</i>												FO		
FICR	fish crow	<i>Corvus ossifragus</i>												FO		
FISP	field sparrow	<i>Spizella pusilla</i>												B	B	
GBHE	great blue heron	<i>Ardea herodias</i>														
GCFL	great crested flycatcher	<i>Myiarchus crinitus</i>							B		B				B	
GCKI	golden crowned kinglet	<i>Regulus satrapa</i>					M			M		M				
GHOW	great-horned owl	<i>Bubo virginiana</i>					O			B						
GRCA	gray catbird	<i>Dumetella carolinensis</i>				B		B	B		B				B	
GRHE	green heron	<i>Butorides vires</i>														
GRSP	grasshopper sparrow	<i>Ammodramus savannarum</i>												B		
HAWO	hairy woodpecker	<i>Dryobates villosus</i>								B						
HETH	hermit thrush	<i>Catharus guttatus</i>								M		M				
HOFI	house finch	<i>Carpodacus mexicanus</i>	Fo												Fo	B
HOSP	house sparrow	<i>Passer domesticus</i>														
HOWA	hooded warbler	<i>Setophaga citrina</i>								B						
HOWR	house wren	<i>Troglodytes aedon</i>					B				B				B	
INBU	indigo bunting	<i>Passer cyanea</i>				B		B	B	B		B		Fo	B	
INPE	Indian peafowl	<i>Pavo cristatus</i>														
KILL	Killdeer	<i>Charadrius vociferus</i>												FO		
LEFL	least flycatcher	<i>Empidonax minimus</i>								B						
LISP	Lincoln's sparrow	<i>Melospiza lincolni</i>												M	M	
LOWA	Louisiana waterthrush	<i>Parkesia motacilla</i>				B						B				
MALL	Mallard	<i>Anas platyrhynchos</i>				O								FO		
MAWA	Magnolia warbler	<i>Setophaga magnolia</i>				M				M						
MERL	Merlin	<i>Falco columbarius</i>												FO		
MODO	mourning warbler	<i>Geothlypis philadelphia</i>				M										
NAWA	Nashville warbler	<i>Leiostyris ruficapilla</i>				M		M	M					M	M	
NOCA	northern cardinal	<i>Cardinalis</i>					B				B		B			
NOFL	northern flicker	<i>Colaptes auratus</i>				B		B	B		B			FO		



NOMO	northern mockingbird	<i>Mimus polyglottos</i>						B				B			Fo	B
NOPA	northern parula	<i>Setophaga americana</i>			M			M		B						
OROR	orchard oriole	<i>Icterus spurius</i>						B							B	
OSPR	Osprey	<i>Pandion haliaetus</i>												FO		
OVEN	Ovenbird	<i>Seiurus aurocapilla</i>								B						
PIWA	pine warbler	<i>Setophaga pinus</i>			M	B		M								
PIWO	pileated woodpecker	<i>Dryocopus pileatus</i>			Fo			Fo				B	Fo		FO	
PRAW	prairie warbler	<i>Setophaga discolor</i>														B
RBGR	rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>			M			M		B	Fo					
RBGU	ring-billed gull	<i>Larus delawarensis</i>												FO		
RBWO	red-bellied woodpecker	<i>Melanerpes carolinianus</i>			B		B	B		B	Fo			FO		
RCKI	ruby-crowned kinglet	<i>Regulus calendula</i>						M		M						
REVI	red-eyed vireo	<i>Vireo olivaceus</i>			B		B			B		B			Fo	
ROPI	rock pigeon	<i>Columba livia</i>												FO		
RSHA	red-shouldered hawk	<i>Buteo lineatus</i>												FO		
RTHA	red-tailed hawk	<i>Buteo jamaicensis</i>							O	B				FO		
RTHU	ruby-throated hummingbird	<i>Archilochus colubris</i>			M		M									M
RWBL	red-winged blackbird	<i>Agelaius phoeniceus</i>												B	B	
SCTA	scarlet tanager	<i>Piranga olivacea</i>			B	B		B		B						
SOSP	song sparrow	<i>Melospiza melodia</i>	Fo	Fo			B	B				B		B		
SSHA	sharp-shinned hawk	<i>Accipiter striata</i>												FO		
SWSP	swamp sparrow	<i>Melospiza georgiana</i>												M		
SWTH	Swainson's thrush	<i>Catharus ustulatus</i>			M					M		M				
TEWA	Tennessee warbler	<i>Leiothlypis peregrina</i>			M	M	M									M
TRES	tree swallow	<i>Tachycineta bicolor</i>												Fo	Fo	
TUTI	tufted titmouse	<i>Baeolophus bicolor</i>			B	B	Fo		Fo	B	Fo					
TUVU	turkey vulture	<i>Cathartes aura</i>												FO		
WAVI	warbling vireo	<i>Vireo gilvus</i>			B		B	B		B	M					
WBNU	white-breasted nuthatch	<i>Sitta carolina</i>	Fo	Fo	B	B				B						

WEWA	worm-eating warbler	<i>Helmitheros vermivorum</i>								M				
WITU	wild turkey	<i>Meleagris gallopavo</i>				O			O	O			Fo	
WIWA	Wilson's warbler	<i>Cardellina pusilla</i>			M									
WIWR	winter wren	<i>Troglodytes hiemalis</i>			M					M				
WOTH	wood thrush	<i>Hylocichla mustelina</i>			B			B		B		B		
WTSP	white-throated sparrow	<i>Zonotrichia albicollis</i>	Fo	Fo				M		W	M		M	M
YBCU	yellow-billed cuckoo	<i>Coccyzus americanus</i>								B				
YRWA	yellow-rumped warbler	<i>Setophaga coronata</i>			M			M		M				M
YTVI	yellow-throated vireo	<i>Vireo flavifrons</i>				B				B				
YWAR	yellow warbler	<i>Setophaga petechia</i>			M			B					B	B

B=Breeding, Fo=Foraging, FO=Flyover, M=Migration, O=Observed, W=Wintering

## Herpetofauna

AES Ecologists conducted three methods (Time Constrained Searches, Calling Anuran Surveys, and Random Opportunistic Sampling) for herpetofaunal surveys at Detweiler Park. All employees have updated PA fishing licenses. None of these methods require scientific collection permits (non-invasive methods). Reptiles and amphibians (collectively, herpetofauna) have notably low detection probabilities and often require specific and intensive survey methods to develop comprehensive surveys. In absence of these methods, we recognize the species list provided to be a subset of the onsite herpetofauna. Some data herein was provided by a qualified citizen scientist (Mark Embeck). Additionally, we note species that are likely to occur onsite despite not encountering them.

Table 4. Observed Reptiles and Amphibians at Detweiler in 2020

Animal Group	Common Name	Scientific Name	Notes
Amphibian – Salamander	redback salamander	<i>Plethodon cinereus</i>	Frequent
Amphibian – Salamander	northern two-lined salamander	<i>Eurycea bislineata</i>	In lower stream
Amphibian – Salamander	northern dusky salamander	<i>Desmognathus fuscus</i>	In headwater streams
Amphibian – Salamander	spotted salamander	<i>Ambystoma maculatum</i>	Egg masses in pond
Amphibian – Anuran	American toad	<i>Anaxyrus americanum</i>	Frequent
Amphibian – Anuran	northern spring peeper	<i>Pseudacris c. crucifer</i>	Common
Amphibian – Anuran	northern gray treefrog	<i>Hyla versicolor</i>	Common
Amphibian – Anuran	wood frog	<i>Lithobates sylvatica</i>	Common

Amphibian – Anuran	pickerel frog	<i>Lithobates palustris</i>	In pond and along stream
Amphibian – Anuran	northern green frog	<i>Lithobates clamitans melanota</i>	In pond and along stream
Amphibian – Anuran	North American bullfrog	<i>Lithobates catesbeiana</i>	In pond
Reptile – Turtle	common snapping turtle	<i>Chelydra serpentina</i>	In pond
Reptile – Turtle	eastern box turtle	<i>Terrapene c. carolina</i>	Species of conservation concern – common
Reptile – Snake	northern ringneck snake	<i>Diadophis p. edwardsii</i>	Under rocks on mountain
Reptile – Snake	northern brown snake	<i>Storeria dekayi</i>	Near homestead
Reptile – Snake	eastern garter snake	<i>Thamnophis s. sirtalis</i>	Common
Reptile – Snake	northern watersnake	<i>Nerodia s. sipedon</i>	Along stream in wetland
Reptile – Snake	timber rattlesnake	<i>Crotalus horridus</i>	Species of conservation concern – found near DCNR building

## Mammals

A combination of three methods (Camera Trap, Scat and Track searches, and Random Opportunistic Sampling) resulted in documenting 21 mammal species on site (Table 4). Other species, such as American black bear, have been reported on the site but not during our efforts (or conveyed in a validated manner). It is likely numerous other mammal species occur on site. Of largest note are bats (up to 6 species are potentially present). No bat surveys were conducted as part of this study but summer nesting habitat for tree-roosting bats is present on site. All proposed tree clearing outside of the conifer plantations will require USFWS coordination related to bats.

Table 4. Mammals Confirmed Present at Detweiler Park in 2020.

Common Name	Scientific Name	Notes
white-footed mouse	<i>Peromyscus leucopus</i>	Under logs in woods
meadow vole	<i>Microtus pennsylvanicus</i>	Edge of hay field
eastern red bat	<i>Lasiurus borealis</i>	Observed foraging over field/forest edge
big-brown bat	<i>Eptesicus fuscus</i>	Observed foraging over field/forest edge
short-tailed shrew	<i>Blarina brevicauda</i>	Dead on trails
eastern chipmunk	<i>Tamias striatus</i>	Common
southern flying squirrel	<i>Glaucomys Volans</i>	Meade's Mtn
red squirrel	<i>Tamisciurus hudsonicus</i>	Conifer plantations
gray squirrel	<i>Sciurus carolinensis</i>	Common
eastern cottontail	<i>Sylvilagus floridanus</i>	Common
eastern striped skunk	<i>Mephitis</i>	Common



Virginia opossum	<i>Didelphis virginianus</i>	Common
Woodchuck	<i>Marmota monax</i>	Common
Raccoon	<i>Procyon lotor</i>	Common
American mink	<i>Neovison vison</i>	Along stream
Fisher	<i>Pekania pennanti</i>	Rare - obs by M. Embeck – confirmed by PAGC
red fox	<i>Vulpes</i>	Common
Coyote	<i>Canis latrans</i>	Common
white-tailed deer	<i>Odocoileus virginianus</i>	Common
Bobcat	<i>Lynx rufus</i>	Tracks confirmed via M. Embeck coordination
feral domesticated cat	<i>Felis catus</i>	In all woods

## Invertebrates

No formal insect surveys were conducted, but opportunistic insect observations were documented during each site visit, totaling 110 insects documented (to species when possible). In addition, a citizen scientist (Mark Embeck, retired PADEP aquatic ecologist) regularly contributed to this list by shared state-verified observations all year and he conducted an aquatic benthos study, sampling three stream reaches on the site (resulting in 22 taxa). The insect list we present (like all other taxa in this cursory assessment) is not comprehensive. A full multi-year study using multiple survey and trapping methods would still only begin to achieve a comprehensive assessment due to the sheer diversity, complexity, and unique life histories of insects. However, this list strongly suggests the great importance of the site for insect diversity and for myriad insectivores.

Group	Genus	Species (if available)	Common Name (if available)
Ephemeroptera (mayflies)	<i>Baetis</i>	<i>sp</i>	ME macroinvert study
	<i>Ameletus</i>	<i>sp</i>	ME macroinvert study
	<i>Ephemeralla</i>	<i>sp</i>	ME macroinvert study
	<i>Epeorcus</i>	<i>sp</i>	ME macroinvert study
	<i>Stenonema</i>	<i>sp</i>	ME macroinvert study
	<i>Paraleptophlebia</i>	<i>sp</i>	ME macroinvert study
Odonata (dragonflies and damselflies)	<i>Cordulegaster</i>	<i>sp</i>	ME macroinvert study
	<i>Cordulegaster</i>	<i>erronea</i>	Tiger spiketail (MEbeck larva, ad)
	<i>Lanthus</i>	<i>sp</i>	ME macroinvert study
	<i>Stylogomphus</i>	<i>sp</i>	ME macroinvert study
	<i>Ophiogomphus</i>	<i>rupinsulensis</i>	rusty snaketail
	<i>Tachopteryx</i>	<i>thoreyi</i>	gray petaltail
	<i>Epitheca</i>	<i>sp</i>	baskettail sp.
	<i>Hagenius</i>	<i>brevistylus</i>	dragonhunter
	<i>Argia</i>	<i>moesta</i>	powdered dancer
	<i>Ishnura</i>	<i>posita</i>	fragile forktail
	<i>Anax</i>	<i>junius</i>	common green darner
	<i>Libellula</i>	<i>luctuosa</i>	widow skimmer
	<i>Libellula</i>	<i>pulchella</i>	12-spotted skimmer
	<i>Erythemis</i>	<i>simplicicollis</i>	eastern pondhawk
	<i>Ishnura</i>	<i>verticollis</i>	eastern forktail
	<i>Calopteryx</i>	<i>maculata</i>	ebony jewelwing
<i>Aeshnidae</i>	<i>sp</i>	a darner	

Orthoptera (grasshoppers)	<i>Melanoplus</i>	<i>differentialis</i>	differential grasshopper
	<i>Gryllidae</i>	<i>sp</i>	a tree grasshopper
	<i>Gryllus</i>	<i>pennsylvanicus</i>	field cricket
	<i>Orchelimum</i>	<i>vulgare</i>	common meadow katydid
Plecoptera (stoneflies)	<i>Leuctra</i>	<i>sp</i>	ME macroinvert study
	<i>Amphinemoura</i>	<i>sp</i>	ME macroinvert study
	<i>Tallaperla</i>	<i>sp</i>	ME macroinvert study
	<i>Eleoptura</i>	<i>sp</i>	ME macroinvert study
	<i>Isoperla</i>	<i>sp</i>	ME macroinvert study
	<i>Sweltsa</i>	<i>sp</i>	ME macroinvert study
Isoptera (termites)	<i>Isoptera</i>	<i>sp</i>	a termite
Hemiptera (true bugs)	<i>Halymorpha</i>	<i>halys</i>	Brown marmorated stinkbug
	<i>Murgantia</i>	<i>histrionica</i>	Harlequin bug
	<i>Leptoglossus</i>	<i>phyllopus</i>	Eastern leaf-footed bug
	<i>Reduviidae</i>	<i>sp</i>	Assassin bug
	<i>Oncopeltis</i>	<i>fasciatus</i>	Large milkweed bug
	<i>Gerridae</i>	<i>sp</i>	Water strider
	<i>Arilus</i>	<i>cristatus</i>	Wheel bug
	<i>Lycorma</i>	<i>deliculata</i>	Spotted lanternfly
Tricoptera (caddisflies)	<i>Diplectrona</i>	<i>sp</i>	ME macroinvert study
	<i>Hydropsyche</i>	<i>sp</i>	ME macroinvert study
	<i>Hydatophylax</i>	<i>sp</i>	ME macroinvert study
	<i>Pycnopsyche</i>	<i>sp</i>	ME macroinvert study
	<i>Chimarra</i>	<i>sp</i>	ME macroinvert study
	<i>Dolophilodes</i>	<i>sp</i>	ME macroinvert study
	<i>Ryacophila</i>	<i>sp</i>	ME macroinvert study
Coleoptera (beetles)	<i>Stenelmis</i>	<i>sp</i>	ME macroinvert study
	<i>Ectopria</i>	<i>sp</i>	ME macroinvert study
	<i>Psephenus</i>	<i>sp</i>	ME macroinvert study
	<i>Tetraopes</i>	<i>tetrophthalmus</i>	red milkweed beetle
	<i>Chrysochus</i>	<i>auratus</i>	dogbane beetle
	<i>Cicindela</i>	<i>sexguttata</i>	6-spotted tiger beetle
	<i>Euphoria</i>	<i>inda</i>	bumble flower beetle
	<i>Olceoptona</i>	<i>sp</i>	a carrion beetle
	<i>Anatis</i>	<i>labiculata</i>	15-spotted lady beetle
Neuroptera (mantids)	<i>Tenodera</i>	<i>sinensis</i>	Chinese mantis
Hymenoptera (bees, wasps, ants)	<i>Halictidae</i>	<i>sp</i>	a sweat bee
	<i>Bombus</i>	<i>impatiens</i>	common eastern bumble bee
	<i>Augochloropsis</i>	<i>sp</i>	a sweat bee
	<i>Apis</i>	<i>mellifera</i>	Honeybee
	<i>Dolichovespula</i>	<i>maculata</i>	bald-faced hornet
	<i>Formicidae</i>	<i>sp</i>	an ant
	<i>Bombus</i>	<i>sp</i>	a bumble bee
	<i>Formica</i>	<i>subsericea</i>	wood ant
	<i>Apoidea</i>	<i>sp</i>	A bee
<i>Polistes</i>	<i>fuscatus</i>	northern paper wasp	

	<i>Camponotus</i>	<i>pennsylvanicus</i>	eastern black carpenter ant
	<i>Vespula</i>	<i>sp</i>	yellow jacket
Lepidoptera (butterflies and moths)	<i>Speyeria</i>	<i>cybele</i>	great-spangled fritillary
	<i>Danaus</i>	<i>plexippus</i>	Monarch
	<i>Limenitis</i>	<i>archippus</i>	Viceroy
	<i>Strymon</i>	<i>melinus</i>	gray hairstreak
	<i>Cupido</i>	<i>comyntas</i>	eastern tailed blue
	<i>Desmia</i>	<i>maculalis</i>	grape leafroller
	<i>Phycoides</i>	<i>cocyta</i>	northern crescent
	<i>Vanessa</i>	<i>atalanta</i>	red admiral
	<i>Vanessa</i>	<i>virginiensis</i>	American lady
	<i>Celastrina</i>	<i>ladon</i>	spring azure
	<i>Papilio</i>	<i>glaucus</i>	eastern tiger swallowtail
	<i>Papilio</i>	<i>polyxenes</i>	black swallowtail
	<i>Phyciodes</i>	<i>tharos</i>	pearl crescent
	<i>Ctenucha</i>	<i>virginica</i>	Virginia ctenucha
	<i>Caenurgina</i>	<i>crassiuscula</i>	clover looper
	<i>Colias</i>	<i>philodice</i>	clouded sulphur
	<i>Pieris</i>	<i>rapae</i>	cabbage white
	<i>Pholisora</i>	<i>catullus</i>	common sootywing
	<i>Enodia</i>	<i>anthon</i>	northern pearly-eye
	<i>Lycaena</i>	<i>phlaeas</i>	American copper
	<i>Calycopis</i>	<i>cecrops</i>	red-banded hairstreak
<i>Poanes</i>	<i>Hobomok</i>	Hobomok skipper	
<i>Pompeius</i>	<i>Verna</i>	little glasswing	
<i>Polites</i>	<i>peckius</i>	Peck's skipper	
<i>Polites</i>	<i>themistocles</i>	tawny-edged skipper	
Megaloptera	<i>Nigronia</i>	<i>sp</i>	ME macroinvert study
Diptera (flies and midges)	<i>Probezzia</i>	<i>sp</i>	ME macroinvert study
	<i>Chironomidae</i>	<i>sp</i>	A crane fly
	<i>Prosimullium</i>	<i>sp</i>	ME macroinvert study
	<i>Limnophila</i>	<i>sp</i>	ME macroinvert study
	<i>Molophilus</i>	<i>sp</i>	ME macroinvert study
	<i>Dicranota</i>	<i>sp</i>	ME macroinvert study
	<i>Hexatoma</i>	<i>sp</i>	ME macroinvert study
	<i>Tipula</i>	<i>sp</i>	ME macroinvert study
	<i>Cuculidae</i>	<i>sp</i>	a mosquito
	<i>Chrysops</i>	<i>sp</i>	a deer fly
	<i>Simuliidae</i>	<i>sp</i>	a black fly
	<i>Nematocera</i>	<i>sp</i>	a gnat



## Discussion and Management Recommendations/Plans

### Forest

Without question, the biggest two threats to the health of the forest at Detweiler are invasive plants and white-tailed deer overpopulation. The severity varies by MU, with the largest short-term concerns being present in the lower elevation units. A concerted effort to both reduce deer population sitewide (via targeted hunting and/or culling with support from USDA APHIS) and exclude deer from certain locations (via permanent fencing) will spring-load restoration efforts that are aligned with both timber health (for economic, ecological, and visitor safety reasons) as well as allow for restoration efforts over the next 20 years to have a meaningful impact on the functional uplift of the site. This functional uplift can be measured in botanical and wildlife diversity, abundance, and distribution over time (vegetation transects, bird surveys, mammal surveys, etc).

There is a boulder slope above the upper trail on Meade’s Mountain that likely supports onsite timber rattlesnakes as a rookery and/or den site. Younger, even-aged trees colonizing this boulder slope should be removed to stimulate lower growth and open the canopy to facilitate basking habitat.

In years 1-5 the primary effort for both volunteer and professional assistance must be invasive species control. Vines and woody (tree and shrub) invasives can and should be both mechanically and chemically controlled in the winter of 2020-21. We strongly recommend hiring a firm (or multiple firms) to aggressively cut and kill mature vines, shrubs, and stands of invasive trees this winter. Efforts should start down by Clarks Creek and work up topography, with final efforts being conducted on Mead’s Mountain. The entire site could be covered in one winter season. Under the same contract(s) there should be repeated visits to spray resprouts in a surgical fashion (using a diluted herbicide with a surfactant). All herbicide activity should occur in targeted areas and temporary signage posted encouraging visitors to stay out of these areas for at least 48 hours after treatment (standard protocol).

As a follow-up to this effort, the County should plan multiple volunteer planting efforts to plant ecologically relevant trees and shrubs in the locations where large colonies of invasive trees and shrubs were removed in the winter. Plantings can begin in early April and continue through to mid-June. Planting efforts can continue again in early October through to mid-November. **ALL PLANTED TREES AND SHRUBS OUTSIDE OF A DEER EXCLOSURE FENCE MUST BE CAGED TO PREVENT DEER HERBIVORY.** High value trees and shrubs (native to the ecological communities found on site) suggested for planting efforts include the following:

Table 6. Preferred Trees and Shrubs for Planting Efforts at Detweiler

Ecotype	Plant Type	Common name	Scientific Name	Landscape Position
Riparian Zones	Tree	pin oak	<i>Quercus palustris</i>	Facultative
	Tree	swamp white oak	<i>Quercus bicolor</i>	Facultative
	Tree	red maple	<i>Acer rubrum</i>	Facultative
	Tree	silver maple	<i>Acer saccharinum</i>	Facultative
	Tree	black willow	<i>Salix nigra</i>	Stream/wetland adjacent
	Tree	pitch pine	<i>Pinus rigida</i>	Dry sites and outcrops
	Tree	eastern hemlock	<i>Tsuga canadensis</i>	Ravines and creek edge (will need to be treated)

	Tree	shellbark hickory	<i>Carex laciniosa</i>	Lowlands
	Shrub	red osier dogwood	<i>Cornus sericea</i>	
	Shrub	Winterberry	<i>Ilex verticillata</i>	Streambanks
	Shrub	mountain laurel	<i>Kalmia latifolia</i>	
	Shrub	great laurel	<i>Rhododendron maximum</i>	Along Clark's creek
	Shrub	spicebush	<i>Lindera benzoin</i>	
	Shrub	Steeplebush	<i>Spiraea tomentosa</i>	
Upland Forests	Tree	white oak	<i>Quercus alba</i>	Facultative
	Tree	black oak	<i>Quercus velutina</i>	Slopes
	Tree	chestnut oak	<i>Quercus montana</i>	Ridgetops and dry sites
	Tree	shagbark hickory	<i>Carya ovata</i>	
	Tree	mockernut hickory	<i>Carya tomentosa</i>	
	Tree	basswood	<i>Tilia americana</i>	Upper portion of Meade's Mtn
	Tree	gray (sweet) birch	<i>Betula lenta</i>	Away from trails
	Tree	Sugar maple	<i>Acer saccharum</i>	
	Tree	Hackberry	<i>Celtis occidentalis</i>	Understory tree
	Shrub	Witchhazel	<i>Hamamelis virginiana</i>	
	Shrub	mountain laurel	<i>Kalmia latifolia</i>	More mesic sites/draws and along streams on mountain slope
	Shrub	ironwood (American hornbeam)	<i>Carpinus carolina var. virginiana</i>	Understory tree
	Shrub	shadbush	<i>Amelanchier arborea</i>	
	Shrub	eastern redbud	<i>Cercis canadensis</i>	Understory tree
	Shrub	flowering dogwood	<i>Cornus florida</i>	
	Shrub	beaked hazelnut	<i>Corylus cornuta</i>	
Shrub	hop-hornbeam	<i>Ostrya virginiana</i>	Understory tree	

## Old Fields

Currently there are four locations where old field condition is present. Old fields are typically meadows or lawn areas left fallow for 1-7 years, resulting in the establishment of woody plants and a variety of grasses, wildflowers, and vines. Species vary greatly depending upon the soils, aspect, and hydrology. Typically, these are invaded by early colonizing invasive plants alongside native plants. Two old fields are small openings within the conifer management units (MUs 4&5), a third is located behind the barn off Peter's Mountain Road, and the fourth is a more managed site adjacent to the Detweiler Home called Frankie's Dog Loop Meadow. This habitat type is often missing from the landscape and provides significant wildlife habitat value. Full of young trees and shrubs competing for space atop grasses and forbs, these fields tend to have a high diversity unless simplified by invasive plants. As a transitional state from meadow to forest, they often are thorny, difficult to navigate, and are temporary in nature (lasting approximately 7-20 years in the succession from meadow to forest). Myriad bird, mammal, insect, and reptile species require this habitat type to complete their life cycles. To no surprise, many of these species are rare and/or in decline due to the lack of general appreciation for this habitat type in human settings (most prefer meadow or forest, not the process in between). The largest folly with afforestation projects is attempting to skip this 15-25-year step by planting trees evenly spaces in an otherwise mowed

setting, removing the ability for nature to compete, self-select, build up bacterial and microbial communities, and accumulate dead and dying plant material in the process.

We encourage the creation of multiple old field conditions to purposefully reset forest succession in areas of overstocked timber as well as steward the existing old fields near buildings mentioned above. These can be stewarded with a light touch via strategic removal of trees within MUs 1,2,4, & 5. The locations within MUs 1&2 can coincide with the development of a frisbee golf course (linear clearings). These will require invasive species control and tree caging (in MUs 1 & 2). The old field by the Detweiler Home is a great example of this condition and is supporting key wildlife species, such as prairie warbler, indigo bunting, orchard oriole, field sparrow, eastern kingbird, and great-crested flycatcher. Other important wildlife species that can be supported by this habitat include yellow-breasted chat, blue-winged warbler, golden-winged warbler, wild turkey, ring-necked pheasant, eastern box turtle, eastern milk snake, and timber rattlesnake.

## Meadows

Two large open fields are present at Detweiler (Airfield Meadow to the west and David's Meadow to the east). These fields have been maintained as open and herbaceous through active haying each year. Haying activity has kept the space open and in a meadow structure long enough to support obligate grassland nesting birds, especially eastern meadowlark, grasshopper sparrow, and bobolink. Dominated by non-native forage grasses, the trophic web in this meadow is underperforming, with limited plant diversity supporting a paucity of insects. This, in turn, results in less birds, mammals, and reptiles occupying the meadows as well.

The conversion of these hay fields to highly functioning warm season grass meadows is likely the easiest (low cost, low effort) and fastest way to increase the biodiversity at the site and provide notable increased aesthetic and ecological function at Detweiler. We strongly recommend a conversion to a (mostly) native meadow habitat plant community in the spring or fall of 2021 via mowing (1" or less height) followed by a tractor-led Truax native seed drill to no-till drill a pre-selected native meadow mix mosaic into these fields. We propose (at a minimum) three different seed mixes to promote heterogeneity in structure and plant species as well as provide added wildflowers closer to the trails. Tolerance of certain non-native grasses and forbs currently in the meadow is recommended (hence the direct seeding versus herbicide-killing the field first). Certain invasives, however, will need to be managed as they appear, such as Canada thistle, mugwort, and spotted knapweed. These fields should be mowed every other year (once every two years) to keep woody plants from establishing. In general, any mowing/dethatching activity should occur in winter or early spring. The schedule and frequency of mowing and invasive species management should be adaptive and in line with supporting a highly functioning meadow habitat (may vary by year depending upon the prevalence or lack of woody plants and invasives). We recommend the County meet with Ft. Indiantown Gap to consider the feasibility of these meadows (once established and functioning) to be a proposed reintroduction site for the regal fritillary (*Speyeria idalia*), a tall grass remnant prairie obligate butterfly species that they currently manage a population of.

In addition to the three habitat-centric mixes, we propose a fescue dominated wildflower mix to convert the remaining model airplane strip to a low-grow meadow mix. This can function as a lawn and be mowed accordingly, but still support nectaring insects with low growing wildflowers. A great diversity of appropriate mixes is available commercially from native plant nurseries, such as Ernst Seed or Taylor Creek Nursery.



Table 7. Proposed Meadow Mixes for Detweiler

Field Position	Seed Mix Type	% Graminoid	% Forb/ Wildflower	Average Height
Core/Central	Tall Meadow	65	35	4-8'
Margins/Trail Edges	Wildflower Meadow	35	65	2-4'
Swales	Mesic Meadow	50	50	3-7'
Airstrip	Blooming Lawn	75	25	2-12"

Improved plant diversity and structure as well as the creation of positive edges/transitions to the surrounding forest habitats has significant potential to greatly increase the value of this site for birds in all seasons. The most notable potential increases to critical bird habitat include wintering raptors (i.e., northern harriers and short-eared owls) and passerine (buntings and longspurs), migratory sparrows, and breeding grassland birds. Grassland breeding birds are recognized as the bird group with the most precipitous declines in the past 50 years. The primary reason is habitat loss. Conversion of these hay fields to highly functioning grasslands offers significant potential to make this location a premiere grassland birding destination.

Managing these fields will require a combination of chemical and mechanical methods enacted at strategic times throughout the year. In addition, there is significant potential to consider fire as a management tool in these meadows. Prescribed fire can remove organic accumulation, revitalize soil chemistry, and benefits native plants over invasives (with some exceptions). We highly recommend the County consider consulting with qualified prescribed fire technicians to consider occasional burns on the site. If engaged, this would involve establishing burn units and staggering fire to promote heterogeneity and ensure refugia for species in all years. We would recommend a five-year cycle for fire. This would help suppress challenging meadow invasives, such as vine honeysuckle and many forbs as well as stimulate and encourage native plant growth.

Independent of the ability or desire to use fire on the site, all other mechanical and chemical treatment methods remain valid. Mowing every other year could be done in units (ex. mow Airfield Meadow in years 1, 3, & 5, mow David's Meadow in years 2, 4, & 6, etc.).

## Waterways

Two primary drainages occur on the site. Both drain into Clark's Creek. Stream orogeny occurs throughout the Meade's Mountain section of the property via seepage wetlands and springs, often channelizing and flowing beneath surface boulders before emerging within a formal streambed. All but one of these high order streams converges onsite into a primary tributary to Clark's Creek, running through the central part of the site and separating the two onsite meadows.

*Primary Drainageway* - Most of the stream corridor is forested except for a narrow riparian corridor along the western and central portions. The western section is exhibiting erosion and streambank instability due to a variety of factors including a paucity of understory and groundstory vegetation (a product of intense deer herbivory and invasive species in the forest floor), up-watershed land use (adjacent property to the northwest has been high-graded), and a narrow riparian buffer to this reach, limiting the capacity of the watershed to capture and slow stormwater runoff. Minor stream bank and in-stream restoration practices are recommended to prevent further erosion and ecological degradation and include the following within the south and western sections of MU 8.

- Establish a larger riparian buffer by planting trees, shrubs, and warm season grasses along the northern and western edges of the Airfield Meadow.
- Actively remove Japanese stilt grass and invasive shrubs from MU 8 and replace with native (shade-tolerant) seed mix and shrub and tree plantings.
- Cage all planted trees and shrubs in clusters to prevent deer herbivory (approximately 20 ft diameter temporary enclosures)
- Have a stream designer locate positions for grade-control structures in the stream (the western reach). Design these using native stone and/or wood.
- Gently grade back the eroded banks and stabilize with coconut fiber erosion control matting, landscape staples, and coir logs
- Seed and plug plants in these stabilized banks (and water for first year)

The high order streams converge north of the onsite meadows, bisecting them before flowing through an intact lowland hardwood forest and emptying into Clark's Creek. In general, this conveyance is in good condition (i.e., limited erosion and the presence of braiding, floodplain benches, and pool-riffle-run sequences). Small ephemeral/stormwater swales that feed this reach are exhibiting minor erosion due to the common issue of invasive species and intense deer herbivory. Approximately 200 meters prior to emptying into Clark's Creek the stream flows over a concrete spillway and is dammed at the low end by an earthen berm. This low and flat position in the landscape was historically supporting spring-fed, stream-associated wetlands. These springs still feed the in-stream man-made pond, resulting in clear and cool water. However, the damming of the stream allows for temperature increases, lowered dissolved oxygen, and increased conductivity prior to flowing through a private property and into Clark's Creek just west of the fish hatchery. The northwestern section of this pond is still functioning like a spring-fed wetland and is supporting breeding wood frogs and spotted salamanders.

From an ecological perspective, this dam should be removed, reconnecting the stream and restoring the spring-fed wetlands in this location. Economic benefits to this include the elimination of permitting, inspection, and maintenance costs for keeping the dam compliant with PADEP dam safety requirements. Additionally, a private residence is located directly downstream of this dam, increasing the severity of a dam breach. The American Rivers Association often funds the removal of dams in these scenarios and could be a financial partner for this project. Potential benefits to removing the dam include increased water quality, improved critical habitat for amphibians, fish passage for spawning brook trout and other life cycle benefits for native aquatic wildlife. Potential negative impacts include the loss of an open water location on the site. This can be, in part, mitigated through thoughtful design and permitting of this effort. Proposed actions include:

- Design and permit a functional stream restoration and bank stabilization.
- Include in this design the restoration of spring-fed wetlands adjacent to the stream channel.
- Modify grading to maximize depth of spring-fed wetland to result in some open water.
- Establish a controlled overflow during storm events into the associated wetlands as recharge and to mitigate stormflow energy.
- Plant a robust and diverse wetland system here that can support local species, such as green heron, wood duck, mallard, marsh wren, yellow warbler, and myriad reptiles, amphibians, and aquatic insects.

*Secondary Drainageway* - Originating in the upper western portion of MU 8, the second drainage flows through a degraded wood lot (MU 9) into the northwesternmost portion of the Airfield meadow behind the farm buildings. Two culverts are built over this stream as if flows through the meadow resulting in significant concentration of water and deeply eroded banks. Channelization

and erosion have resulted in a drop in the water table, disconnecting a stream-adjacent wetland by lowering the hydrology. For this drainage, we propose a wetland restoration and stream stabilization through the following actions:

- Remove culverts and re-grade the banks (using stabilization methods mentioned above)
- Add in-stream grade control structures to raise the elevation of the stream.
- Design a controlled overflow in the eastern bank of the stream to allow for stormwater overflow into the historically present wetland.
- Expand the wetland footprint via excavation and grading to increase hydrology and acreage of emergent wetland habitat.
- Ensure transition from emergent wetland to wet mesic meadow to upland meadow habitat in the northwestern portion the Airfield Meadow.

Since the space is currently in active agriculture (hayng), this restoration project (secondary drainageway) could likely be eligible for enrollment in the wetland reserve program (WRP or WREP). Other financial and technical assistance programs are available (via grants) for this activity as well.

## Conclusions

Detweiler Park is a true ecological gem. The graciousness of the Detweiler family to donate this land to the county and make the space a public resource is nothing short of amazing. The site has significant potential for ecological improvement to the benefit of humans, plants and wildlife alike. Enhancement of this site will create ecological uplift to the entire region. This will not come without dedication to stewardship and maintenance. If left to its own devices, the site will most certainly fall into ecological disrepair. Unraveling of the previously intact systems are evident in erosion, significant invasive species proliferation, and a serious imbalance in predator/prey dynamics. Thoughtful and decisive actions to combat invasive plants and restore balance to the landscape with result in untold benefits.

In concert with the family wishes, the site should remain largely undeveloped and maintained as a mosaic of natural areas for mostly passive recreation. If the ecological recommendations in this report and overall master plan are realized, this site has the significant potential to support myriad rare and common species iconic to central Pennsylvania and the dynamic transition zone between the Piedmont and Ridge and Valley physiographic provinces.

# **Forest Stewardship Plan for Detweiler Park**



# Forest Stewardship Plan for Detweiler Park



This is a forest management plan developed under current Federal and State forest stewardship guidelines.

**Date prepared:** First draft: 4/22/2020: Updated June 2020 by Patrick Fasano (Owner of Comprehensive Land Services) Updated 11/16/2020 By Patrick Fasano and Andy Brought: DCNR Service Forester.

**Plan time frame:** 2020 - 2030

**Property owner:** Detweiler Park, Dauphin County Parks and Recreation

**Address:** 5300 North Front St., Harrisburg, PA 17110

**Telephone:** Parks Department Contact: Carl Dickson (717-599-5188, ext. 2111)

**Email:** cdickson@dauphinc.org

**Directions to site:** Located near the corner of PA Routes 225 and 325 (Peters Mountain Road and Clarks Valley Road), the property contains an excellent mix of habitat that includes a high-priority waterway (Clarks Creek), managed fields, pine/spruce plantations, deciduous forest, and a spring-fed stream with a manmade pond. From the town of Dauphin take SR 225 north, immediately after crossing Clark's Creek, take SR 325 toward Tower City. Go about ½ of a mile and the gated entrance to the Detweiler House is on the left (north) side of road.

**Prepared By:** Patrick Fasano

**Company:** Comprehensive Land Services

**Address:** 1911 Barren Road Oxford PA 19363

**Telephone/Website:** 610 564 5222 / [Comprehensivelandservices.com](http://Comprehensivelandservices.com)

**Email:** pfasano@aol.com

The section below is part of the DCNR Forest Stewardship Plan agreement. It will ultimately need to be signed by Comprehensive Land Services, DCNR Bureau of Forestry, and a representative from Dauphin County.

**Agreement/Approval:**

Since timber harvesting has a significant impact on my forest resource, Dauphin County agrees to complete commercial timber harvests recommended in the plan with the assistance of a professional forester. I understand that the forester is to designate trees to be cut based on a written prescription derived through a careful stand analysis of the management unit involved.

I understand that a service forester or consultant will periodically review the implementation of my Stewardship Plan and is there to assist me in maintaining "Stewardship Forest" status. To enable him/her to carry out this responsibility I will make available copies of plan amendments and/or timber harvesting prescriptions before carrying out a major activity. I understand that I am not obligated to obtain approval from the service forester but that he/she may advise me if prescriptions do not appear to serve the goals of my Stewardship Plan or meet program standards.

I understand that as a "Forest Steward" I am eligible (but not obligated) to request Environmental Quality Improvement Program cost-share assistance to help implement approved practices recommended in the plan or subsequent amendments. If I choose to withdraw from the Forest Stewardship Program, I agree to return the sign that designates my property a "Stewardship Forest" to the service forester.

**Landowner:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Preparer:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Approving Agency:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Andy Brought-Service**  
**Forester for Dauphin County-**  
**PA DCNR Bureau of Forestry**

## General Property Information

**Description of Resources and Level of Interest:** Detweiler Park is a 411-acre tract of land acquired by Dauphin County through a combination of gift and purchase on December 29, 2016. Due to the previous owners' planning and the Parks Department's diligence, the County Commissioners were able to open the park to the public six months after acquisition. With few amenities, seven miles of wide and groomed trails were quickly embraced by the community. Trail counters register visitors ranging from 400 per month in the winter months to over 1000 in the summer months.

**Total Land Area:** 411 acres of total property, and approximately 294 acres of woodland

**Total Number of Management Units:** On the 294 acres of woodland there are 9 management units, with sub units 3a and 8a, included. There are two "Stands" within the 294 acres of woodland. Stand 1 is the southern portion of the property which includes all the Pine/Spruce/Larch plantations. Stand 2 is the large contiguous, deciduous forest on the northern portion of the property.

**Region and Ecosystem type:** USFS - Bailey, Central Appalachian Broadleaf Forest, PA – Ridge and Valley Province, Anthracite Upland Section. Generally northern section (Stand 2) is an Oak/Hickory stand. The lower, or Southern portion of the property (Stand 1) has several Pine/Spruce/Larch plantations, with some Tulip Poplar/Oak/ Hickory stands mixed in. This property is also included in Saint Anthony's Wilderness, a unique forested region in the area. Topography ranges from flat areas to steep, rocky slopes representative of the Ridge and Valley Province.

**General Property Description:** This property is located within a rural area of the Clark's Creek watershed. Several forest/habitat types stretch across its 411 acres. Native tree species present in order of abundance include: yellow poplar, red/black oak, black birch, white oak, hickory, red maple, chestnut oak, and a few basswoods. In every management unit, invasive species are present, and are a severe problem relating to the health of the forest. Intense management of these invasive plants will be priority for the first 5 years of the plan. There is also an over population of deer, causing severe browse damage to seedlings and other desirable plants, such as spring ephemerals. Combined with the adverse effects of many invasive plant species established on the forest floor, we found no native regeneration (young seedlings) throughout the property. Furthermore, if **ANY** timber harvesting is done on the property, we recommend a combination of deer harvesting (more specifically doe hunting), fencing to promote the growth of desirable seedlings and control of invasive plants.

**Description of Surrounding Properties:** The neighboring properties are rural in nature with a mix of farm, forest land, and some residences adjoining or near the property.

**Soils Information:** The soils are Andover very stony loam (AoB), Dekalb and Lehew very stony sandy loams (DIF), Calvin-Leck Kill shaly silt loams (ClB2), Calvin-Leck Kill shaly silt loams (ClC2), Calvin-Klinesville shaly silt loams (CkC2), Laidig gravelly loam (LaC2), Klinesville shaly silt loams (KaE2), Laidig very stony loam (LdD) and Basher silt loam (Bc). A soils map and description is included in the appendix.

**Management Access:** The Detweiler park property is open to the public, so there is good access to the woodlands due to an extensive trail network.

**Presence of threatened/endangered species:** An initial PNDI (Pennsylvania Natural Diversity Index) search has been done, and there is a copy attached. A full follow up to the PNDI information will be provided in the wildlife biology report from Applied Ecological Services. All areas that are forested, will remain in forest during harvest operations. As noted, this property is located within the Saint Anthony's Wilderness, which is considered an important eco region for migratory birds. Saint Anthony's Wilderness is listed as Important Bird Area (or IBA) #43 and is recognized by BirdLife International as globally important habitat for the conservation of bird populations.

In order to maintain and restore this important habitat it is recommended that a prescribed fire program be utilized in the two meadows to ensure proper conservation of native grasses and forbs. As a second option, mowing can be utilized in late winter/early spring to promote these desirable grasses and forbs but should never be done in late summer or fall. Mowing in late summer or fall reduces meadow habitat to nothing for the winter months and early spring of following year.

**Cultural Overview:** The property was purchased by the Detweiler/Stackpole Family circa 1940. Through the years the family worked diligently to improve tree health, attract wildlife, create a sustainable ecosystem and maintain hiking trails on the property that the family enjoyed on a daily basis. Through the years they planted many pines and spruce behind the main house and along the trails.

A 1993 letter found in Meade Detweiler's files states simply his vision for the future of this land: "The property should be an area where habitats are preserved and managed in perpetuity for wildlife based on sound ecological principles that demonstrate a strong land ethic..."

On December 30, 2016, the Detweiler Family achieved these goals through a combination donation and sale of the property to Dauphin County.

Man-made assets on the property include an 1850's stone house, an 1850's bank barn, a cinderblock garage, an airplane hangar, and an abandoned airstrip (western meadow). Another area contains the Detweiler family home with a contemporary stable building and pool house. A third area is comprised of a fish nursery with ancillary structures run under an agreement with the Dauphin County Anglers and Conservationists.

**Wildfire Planning:** The risk of wildfire for the property is moderate due to the adjacency to larger forested tracts. The forest trails and access points are adequate for emergency services and wildfire control if necessary. Basic steps for firewise safety should be implemented to minimize the potential for wildfires. In addition, the maintenance of the forest trails should be continued so equipment can access the property if needed. Any future controlled burns should be planned in accordance with state laws and have a certified burn plan established.

**Map Information:** An aerial photo and a contour map are included in the appendix of this plan. Also included are a soils map, and property map with two Forest stands, and 9 Management units.



## Glossary of Forestry Terminology

**Basal Area** — (a) The cross-sectional area (in square feet) of a tree trunk at breast height (4.5 feet above the ground). For example, the basal area of a tree that measures 14 inches in diameter at breast height is about 1 square foot. (b) The sum basal areas of the individual trees within 1 acre of forest. For example, a well-stocked pine stand might have a basal area of 80 to 120 square feet per acre.

**Board foot** - a unit for measuring wood volume in a tree, log, or board. A board foot is commonly 1 foot by 1 foot by 1 inch, but any shape containing 144 cubic inches of wood equals one board foot.

**Canopy** - the continuous cover formed by tree crowns in a forest.

**Cruise** - a forest survey used to obtain inventory information and develop a management plan.

**Diameter at breast height (dbh)** - standard measurement of a tree's diameter, usually taken at 4 1/2 feet above the ground.

**Forest Stewardship Plan** - a written document listing activities that enhance or improve forest resources (wildlife, timber, soil, water, recreation and aesthetics) on private or public land over a ten-year period.

**Invasive species** – include multiflora rose, honeysuckle, barberry, tree of heaven, royal paulownia, mile-a-minute and Japanese stilt grass.

**Log rule** - a method for calculating wood volume in a tree or log by using its diameter and length. The international 1/4-inch rule (which is used throughout this plan), is the most accepted Log rule for DCNR Stewardship plans in Pennsylvania.

**Overstocked** - the situation in which trees are so closely spaced that they compete for resources and do not reach full growth potential.

**Pole timber**, trees 4 to 11 inches dbh.

**Prism** – this is a sampling tool that is a clear 2 inch by 4-inch clear glass square used to determine Basal area at each sample point. This is the device used to determine Basal Area.

**Pulpwood** - wood suitable for use in paper manufacturing, which is measured in tons. Trees that are 4 to 11 inches in diameter, are also called pulpwood.

**Regeneration** - the process by which a forest is reseeded and renewed. Advanced regeneration refers to regeneration that is established before the existing forest stand is removed. Regeneration is sampled by counting all the small native seedlings and saplings within a 6-foot circle, at each plot sample location, then that number is magnified to represent the number of samples taken within a stand.

**Saw log** - a log large enough to be sawed economically at a saw mill. Saw logs are usually at least 14 inches in diameter (sometimes as small as 12 inches in diameter) at DBH, and 10 inches in diameter at the small end.

**Saw timber stand** - a stand of trees whose average dbh (diameter at Breast Height) is greater than 14 inches. A diameter tape or a Biltmore stick is used at each plot to measure saw timber.

**Shelterwood harvest** – removes low quality stems, and leaves higher quality trees standing to establish and protect “advanced regeneration” until desirable seedlings and saplings are well established. Residual trees also serve as a continuing seed source, when insufficient advanced regeneration is present. Once regeneration is well established, the sheltering trees are harvested, permitting the advanced regeneration to occupy the site fully. Most common practice to establish oak/hickory communities in PA.

**Silviculture** - the art and science of controlling the establishment, growth, composition, health and quality of a forest, by implementing a management tool for the improvement of the forest.

**Site index** - a measure of the quality of a site based on the height of dominant trees at a specified age (usually 25 or 50 years), depending on the species.

**Stand** - a group of forest trees of sufficiently uniform species composition, age, and condition to be considered a homogeneous unit for management purposes.

**Stocking** - the number and density of trees in a forest stand. Stands are often classified as understocked, well-stocked or overstocked.

**Understocked** - a stand of trees so widely spaced that, even with full growth potential realized, crown closure will not occur.

## Methodology Narrative

The foundation of a Stewardship plan is the data compiled by taking point and plot samples throughout the entire woodland acreage. This data will provide the numerical basis to determine the existing conditions of the approximately 294 acres of woodlands within the Detweiler property, and direct us to the proper Silvicultural practices for the woodland management throughout the 10 years of the plan.

Forestry is defined as the science and craft of creating, managing, using, conserving, and repairing forests, woodlands, and associated resources for human and environmental benefits. Forestry is practiced in plantations and natural stands. Therefore, this plan will not only rely on the numerical data, but the experience, and opinions of the DCNR Bureau of Forestry Service Forester, and the Consulting Forester who will be writing the plan, regarding the priorities they feel should be implemented throughout the 10-year plan, to achieve the goal of having a sustainable woodland.

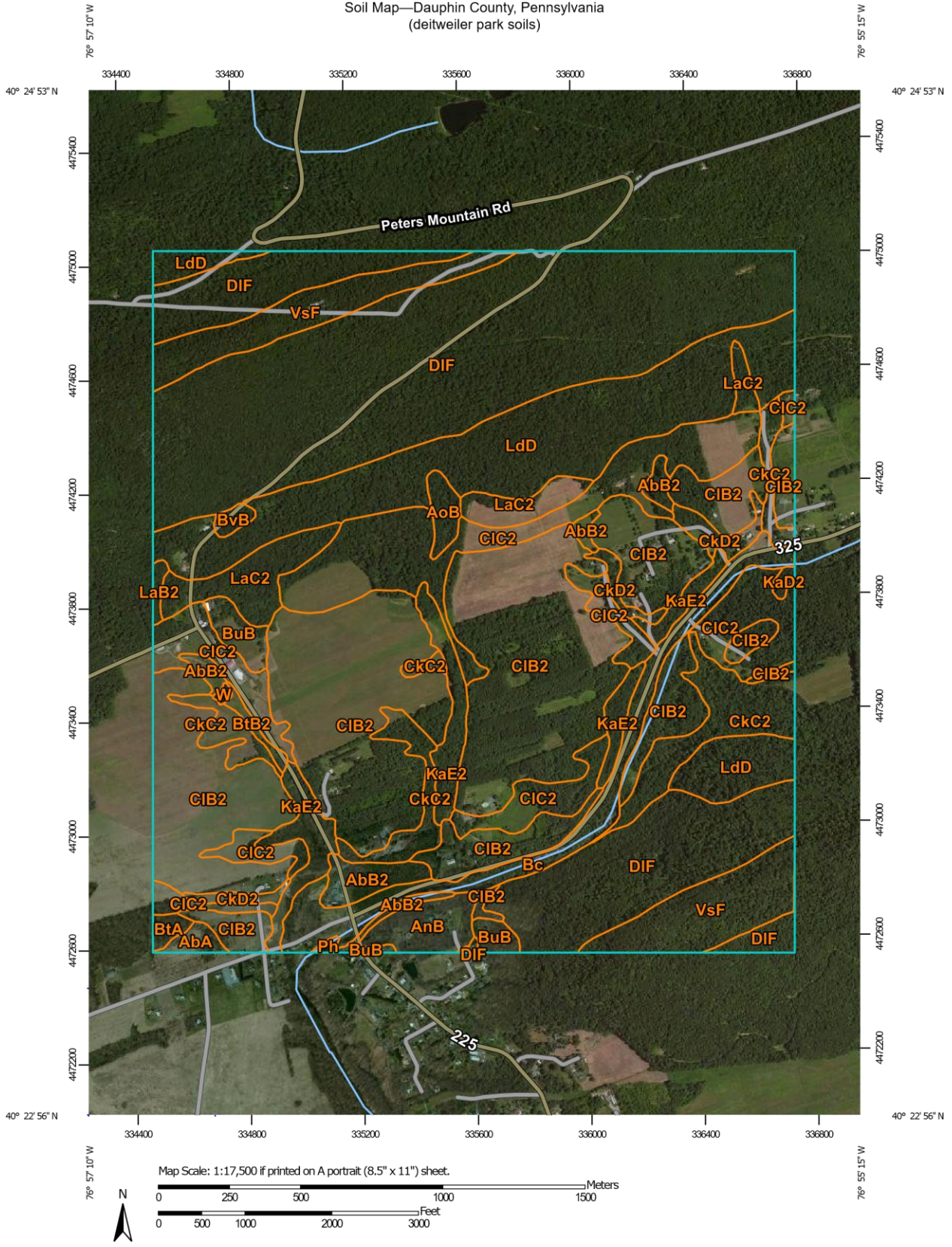
For the first 5 years of the plan recommendations: two main components will be emphasized. First and foremost, will be the initial control and reduction of invasive species present throughout all of the management units. This is the key element to then make recommendations for the proper Silvicultural

applications to actively manage the woodlands. Creating any additional openings in the forest canopy prior to the reduction of the invasive species will be counter - productive to a sustainable forest, as this will enhance the continued encroachment of the invasive species.

Secondly, in the first 5 years of the plan, we will be emphasizing strong recommendations to come up with an effective program to reduce the resident deer population on the property. The lack of any hunting allowed on this property for many years, has resulted in an over stocking, and maximum carrying capacity of the deer population. Due to over browsing, there is complete lack of natural regeneration of any native trees. Therefore, any additional openings in the forest canopy by any type of cutting, would normally result in the natural regeneration of trees. However, throughout our survey we noted that openings in the overstory created an opportunity for invasive species to dominate and suppress any natural regeneration. It will also result in heavier browsing of natural regeneration from the deer population. As the deer will browse all native species long before they will browse non- native or invasive species.

An independent wildlife research study will also be provided by Applied Ecological Services. The findings of this extensive study, coupled with the Forest Stewardship plan, will be included in the overall property master site plan (MSP) submitted by Simone Collins. The Stewardship plan will be one component of the MSP and be in concert with the wildlife report provided by Applied Ecological Services.

Soil Map—Dauphin County, Pennsylvania  
(deitweiler park soils)






**Map Unit Legend:**

<b>Map Unit Symbol</b>	<b>Map Unit Name</b>	<b>Acres in AOI</b>	<b>Percent of AOI</b>
AbA	Albrights silt loam, 0 to 3 percent slopes	3.9	0.3%
AbB2	Albrights silt loam, 3 to 10 percent slopes, moderately eroded	19.8	1.4%
AnB	Andover gravelly loam, 3 to 8 percent slopes	15.1	1.1%
AoB	Andover very stony loam, 0 to 8 percent slopes	6.0	0.4%
Bc	Basher silt loam	45.1	3.3%
BtA	Brinkerton and Armagh silt loams, 0 to 3 percent slopes	3.0	0.2%
BtB2	Brinkerton and Armagh silt loams, 3 to 8 percent slopes, moderately eroded	2.8	0.2%
BuB	Buchanan gravelly loam, 3 to 8 percent slopes	12.9	0.9%
BvB	Buchanan very stony loam, 0 to 8 percent slopes	2.6	0.2%
CkC2	Calvin-Klinesville shaly silt loams, 8 to 15 percent slopes, moderately eroded	59.5	4.3%
CkD2	Calvin-Klinesville shaly silt loams, 15 to 25 percent slopes, moderately eroded	13.5	1.0%

CIB2	Calvin-Leck Kill shaly silt loams, 3 to 8 percent slopes, moderately eroded	366.0	26.5%
CIC2	Calvin-Leck Kill shaly silt loams, 8 to 15 percent slopes, moderately eroded	147.4	10.7%
DIF	Dekalb and Lehew very stony sandy loams, 25 to 80 percent slopes	382.5	27.7%
KaD2	Klinesville shaly silt loam, 15 to 25 percent slopes, moderately eroded	1.4	0.1%
KaE2	Klinesville shaly silt loam, 25 to 50 percent slopes, moderately eroded	40.2	2.9%
LaB2	Laidig gravelly loam, 3 to 8 percent slopes, moderately eroded	1.9	0.1%
LaC2	Laidig gravelly loam, 8 to 20 percent slopes, moderately eroded	36.2	2.6%

 **Natural Resources** Web Soil Survey 11/9/2019 **Conservation Service:** National Cooperative Soil Survey Page 3 of 4 Soil Map—Dauphin County, Pennsylvania, Detweiler park soils

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LdD	Laidig very stony loam, 8 to 25 percent slopes	151.7	11.0%
Ph	Philo silt loam	0.8	0.1%
VsF	Very stony land, steep	68.7	5.0%
W	Water	0.7	0.1%

## **PNDI (environmental review):**

### **Introduction**

This Conservation Planning Report compiles names, descriptions, maps, locations, measurements, links and references for Natural Heritage Areas (core and supporting habitats), Important Bird Areas, State Lands, and agency designated water resources that are coincident with an area of interest defined by the user of the Pennsylvania Conservation Explorer tool. For an overview and additional details, please be sure to visit the website at [www.naturalheritage.state.pa.us](http://www.naturalheritage.state.pa.us) and download the applicable County Natural Heritage Inventory report(s).

**Site Area:** 633.16 acres

**County(s):** Dauphin

**Township/Municipality(s):** MIDDLE PAXTON

**Quadrangle Name(s):** HALIFAX

**Watersheds HUC 8:** Lower Susquehanna-Swatara

**Watersheds HUC 12:** Clark Creek

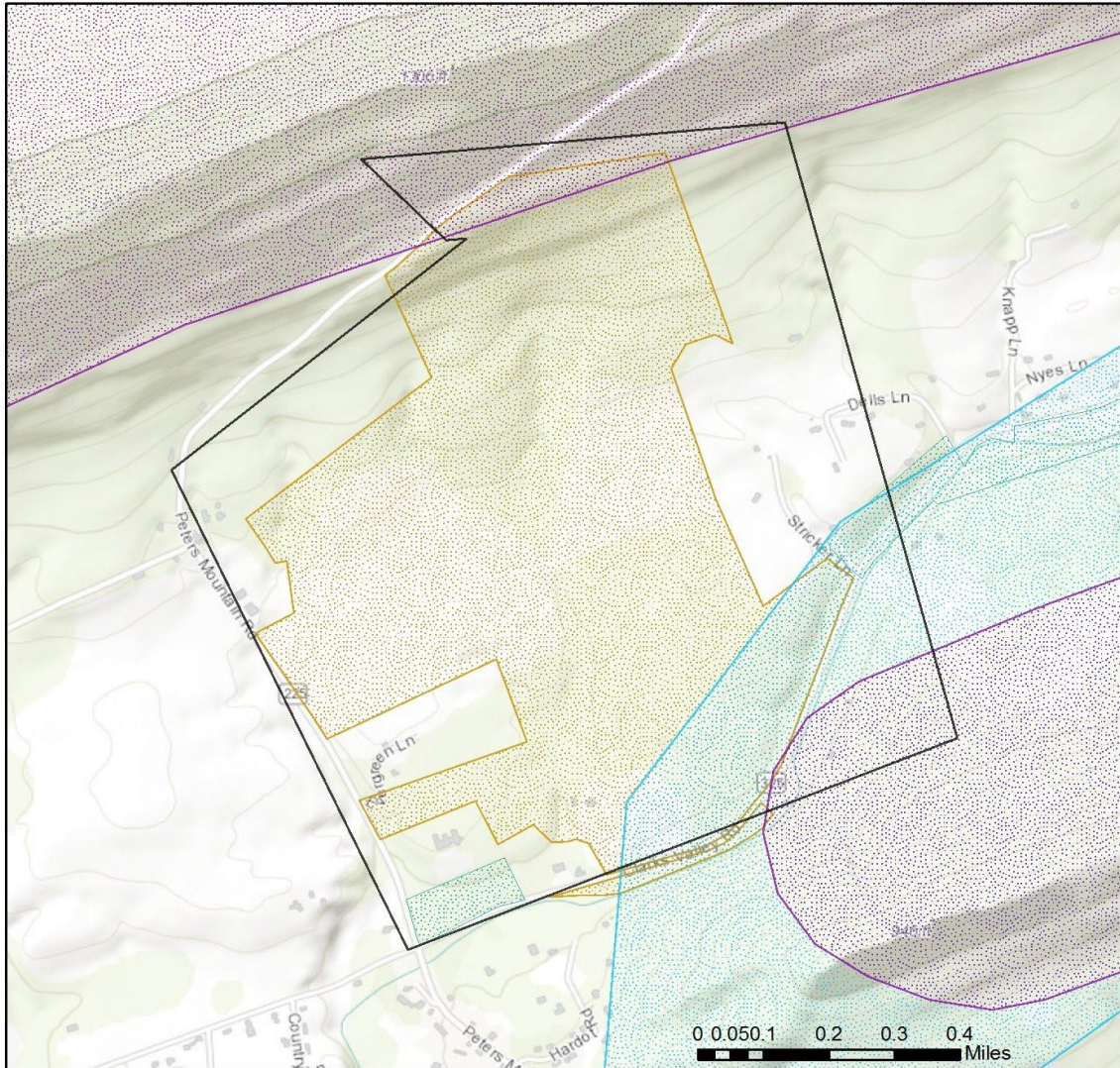
**Decimal Degrees:** 40.398065 N, -76.937224 W

**Degrees Minutes Seconds:** 40° 23' 53.330" N, 76° 56' 14.78" W

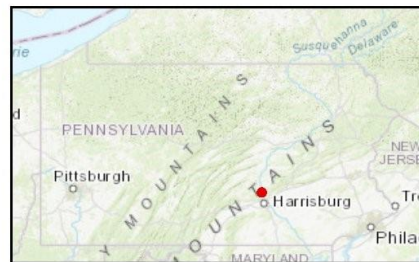
### **SEARCH RESULT SUMMARY**

<b>Conservation Planning Category</b>	<b>Detected Area Summary</b>
Protected Lands	3 tracts; 386.69 acres
Important Bird Areas	1 area

# Detweiler Park



-  Project Boundary
-  Supporting Landscapes
-  Important Bird Areas
-  Local Parks
-  Protected Areas



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo,



## Protected Lands

Protected lands or conservation areas are locations which receive protection, through legal or other means, because of their recognized natural, ecological and/or cultural values.

Name	Description	Owner	Website	Total Acres
Detweiler Park	County Park			382.00
Land Trust Conservation Easement	Land Trust Held	Manada Conservancy	<a href="#">Link</a>	8.00
Bailey's Grove Fishing Only	Public Recreation	Pennsylvania Fish & Boat Commission	<a href="#">Link</a>	26.00

## Local Parks

A local park is a publicly owned and publicly accessible park or natural area that engages participants of all ages in outdoor recreational experiences. Local parks and open spaces connect citizens to close-to-home outdoor recreation opportunities for play and physical activities; promote health and wellness, and environmental stewardship.

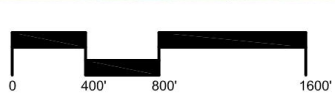
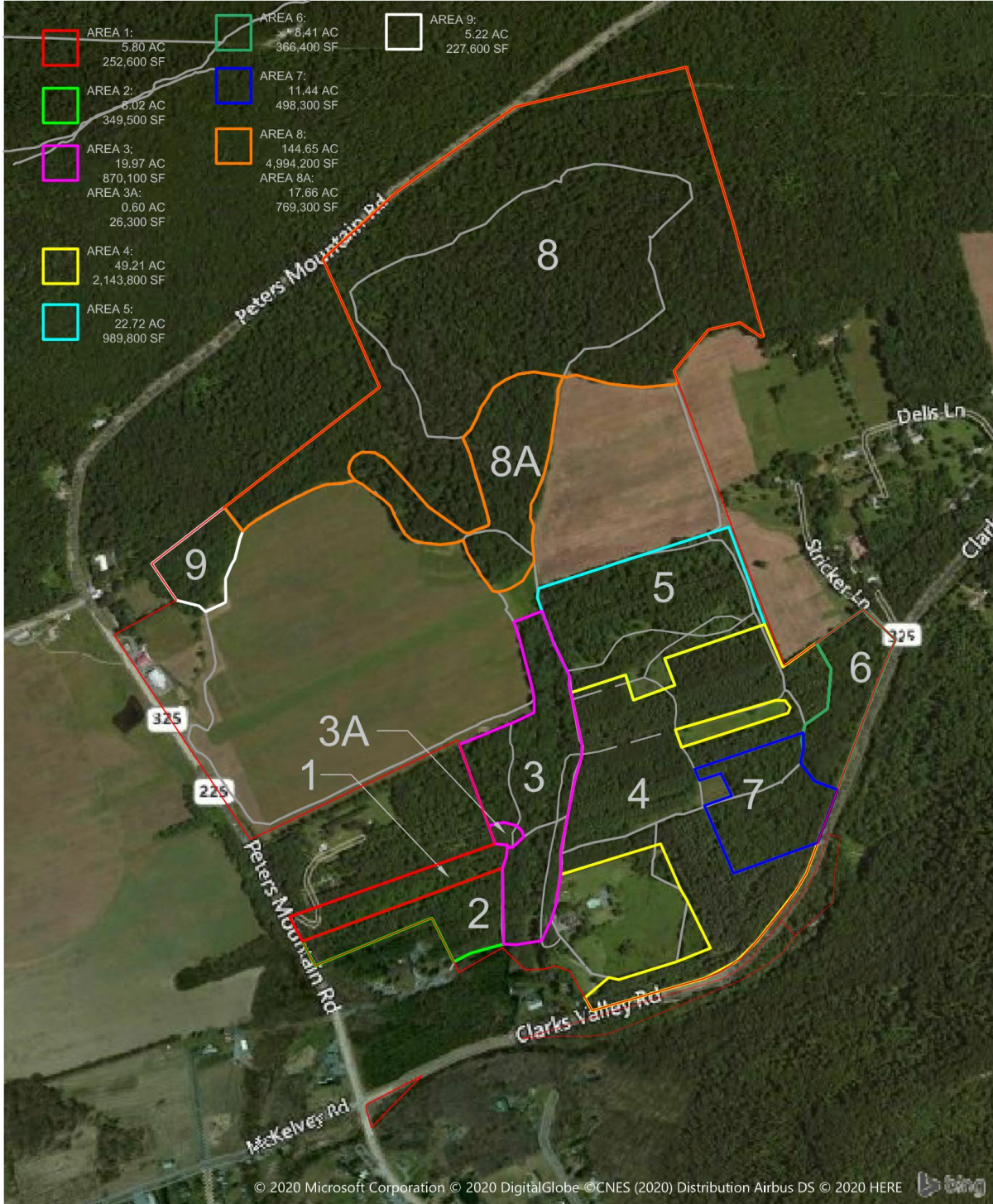
Local Park	Park Type	County	State or Federal Grant Funding
Detweiler Park	County Parks	Dauphin	Yes, click <a href="#">here</a> for more information.

## Important Bird Areas (IBAs)

These are areas recognized as being globally important habitat for the conservation of bird populations. Currently there are about 10,000 IBAs worldwide. The program was developed and sites are identified by BirdLife International.

IBA Site Number	Name	Reference
43	St. Anthony's Wilderness - SGL 211	<a href="#">Link</a>

For additional information about the Pennsylvania Natural Heritage Program, visit the website at <https://www.naturalheritage.state.pa.us/>



# DETWEILER FOREST MANAGEMENT AREAS

## Management Unit Narratives/Prescriptions

### Stand 1: Southern Portion of Property (Mgmt Units 1-7)

#### Management Unit 1

**Land Area:** 5.8 acres

**Land use history:** This stand is in a successional state from an old agricultural field.

**Forest Group:**

**Existing:** Sparsely scattered, small diameter mixed hardwood

**Potential:** Mixed hardwoods, if invasive species and deer are reduced

**Successional Trend:** This stand has a scattering of small trees with an understory of invasive plants. Those invasive plant species include: multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle.

Native trees in the overstory include: Pin Oak, Sassafras, Black Cherry, American Beech, American Holly, Tulip Poplar, Red Maple, and Sycamore. These trees are very scattered and not merchantable.

Potential native succession for this stand is not sustainable as the deer continue to browse any native tree seedlings that are present, and therefore allowing the invasive species to reproduce, and thrive; resulting in a bramble of invasive species. In some areas there are invasive species overtaking other invasive species. This is not the only area where this is occurring. The impact of invasive species throughout all of the management units will be a major problem, and a plan of action for both invasive control and the reduction of the deer herd present is essential for the first 5 years of the Forest Management Plan (FMP).

**Forest Health:** This unit is in poor health. There are no seedlings in the understory to replace the existing overstory.

**Site Quality:** Poor to moderate (the absence of regeneration is not due to site quality, but the presence of invasive species and excessive deer browsing). Soils here are Calvin-Leck Kill shaly silt loams (CIB2).

**Approximate Age:** 25 years

**Size Class:** Pulpwood, with a few scattered, small sawtimber trees

**Trees per acre:** 5-10

**Mean Stand Diameter:** 10"

**Timber Quality:** Poor-medium

**Growth rate:** N/A

**Basal area (stocking):** This stand is below average in stocking with little, to no, basal area to tally. Therefore, no overstory plots were taken in this management unit.

**Stand Volume:** This stand is understocked. Therefore, no overstory plots were taken in this management unit.

**Habitat/wildlife use:** This area is overrun with deer, which have browsed all regeneration. Therefore, invasive species have taken over as invasive are much less palatable to deer. Habitat for wildlife is severely depleted due to invasive species dominating this unit. Also, the lack of a good, native understory is limited habitat for any interior dwelling birds.

**Recreation:** The site is too overgrown for hiking or any other activities. It can be viewed by the adjacent pine stand or from the northern side of the site which is an open field.

**Potential for timber:** Invasive species need to be controlled and the deer herd reduced before any tree plantings occur to produce a desirable forest. "No planting" is recommended for at least the first 4 years until invasives and deer are brought under control.

**Water quality issues:** This stand is generally dry; however, it does not have much slope so there is the potential for standing water after a heavy rain event.

**Natural features:** There are no natural features of note in this unit.

**Owner objective:** This unit is basically an overgrown successional field heavily dominated by invasive species. If the unit is to become a productive part of the property as far as wildlife habitat, and a healthy future timber stand the invasive species present must be treated, and greatly reduced. Also, a plan must be put in place for the reduction of the existing deer herd.

### **Silvicultural Prescription:**

**Silvicultural System:** Invasive control. Increase deer harvest. Tree planting once invasives and deer are under control. Tree planting in year 5 of the plan. Desired rotation age is 80-100 years. Plant native upland species such as red oak, white oak, hickory, red maple, white pine, and tulip poplar.

**Details of Silviculture:** Aggressively control invasive plants we documented in the unit.

## **Planned Activities:**

2020:	Reduce the deer population. Control invasive species for the first 5 years of the plan
Priority:	1
2021:	Control invasives and use volunteer assistance for its removal. Continue deer control.
Priority:	2
2022-2025:	Continued control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Tree planting needs to occur with tree shelters or small woven wire fences. Consider deer enclosure fencing. Continue deer control.

## **Management Unit 2**

<b>Land Area:</b>	8 acres
<b>Land use history:</b>	White pine, Norway spruce plantation. Previously an agricultural field.
<b>Forest Group:</b>	
<b>Existing:</b>	White pine/Norway spruce
<b>Potential:</b>	White pine/Norway spruce
<b>Successional Trend:</b>	This stand is not very healthy. The pines and spruce are being adversely affected by competing vegetation, especially oriental bittersweet. Many trees are declining from the “girdling” effect of this invasive vine. This management unit will continue to decline without reduction of the bittersweet, and other invasive species.
<b>Forest Health:</b>	This stand is not healthy as there are many invasive species in the understory, such as multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. The overstory provides dense shade and combined with heavy deer browse, there is no regeneration. Therefore, the sustainability of this stand is at risk.



**Site Quality:** Poor to moderate (the absence of regeneration is not due to site quality, but due to heavy shade from the conifer overstory, presence of invasive plants, and deer browse). Soils here are Calvin-Leck Kill shaly silt loams (CIB2).

**Approximate Age:** 50 years

**Size Class:** Small sawtimber (12"-16" dbh)

**Trees per acre:** 70

**Mean Stand Diameter:** 15"

**Timber Quality:** Medium

**Growth rate:** 2.5%

**Basal area (stocking):** 170 (fully stocked)

**Stand Volume:** This stand is fully stocked. Following control of invasives and reduction of deer herd for 5 years, a light thinning of declining trees is recommended.

**Habitat/wildlife use:** There is an overpopulation of deer, and an aggressive doe hunting program should be initiated. Like Stand 1, there are no established seedlings in the understory. There is good potential for nesting sites for birds of prey in this area. Present conifer cover serves as excellent thermal cover for wildlife during winter months. More detailed wildlife recommendations will be included in the Applied Ecological Science wildlife study.

**Recreation:** This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.

**Potential for timber:** This stand has potential for softwood timber production.

**Water quality issues:** There are no water quality issues in this mgmt. unit if best management practices are followed.

**Natural features:** Good potential for nesting sites for birds of prey.

**Owner objective:** Control invasive species. Reduce deer population for first 5 years, then utilize Silvicultural applications shown in summary sheets.

### **Silvicultural Prescription:**

**Silvicultural System:** Even-aged Management with 60-80 year rotation.

**Details of Silviculture:** Control invasive species in this stand. In year 5 we recommend a pre-harvest herbicide application. Then conduct a light commercial thinning in which 20 to

30% of the board footage is removed by taking degraded trees, multiple stemmed trees and trees that are too crowded for optimum growth. Continue to promote conifer cover type here with supplemental plantings of pine and spruce. Thinning should promote establishment of new seedling growth.

### **Planned Activities:**

- 2020: Reduce the deer population. Control invasive species for the first 5 years of the plan.
- Priority: 1
- 2021: Control invasives and use volunteer assistance for its removal. Remove Oriental bittersweet which is girdling trees. Continue deer control.
- Priority: 2
- 2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Tree planting needs to occur with tree shelters or small woven wire fences. Consider deer exclosure fencing. Continue deer control.

### **Management Unit 3**

- Land Area:** 20 acres
- Land use history:** This stand has been a mixed hardwood forest for a long time. A stream bisects this stand.
- Forest Group:**
- Existing:** Tulip poplar, mixed oak
  - Potential:** Tulip poplar, mixed oak
- Successional Trend:** Should continue to be a mixed oak, hardwood forest.
- Forest Health:** This stand is in good health, with some oak decline present. There is a stream corridor through the center of the unit. There are many invasive species in the understory, such as multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. The overstory provides dense shade and combined with heavy deer browse, there is no regeneration. Therefore, the sustainability of this stand is at risk.
- Site Quality:** Moderate. Soils are Klinesville shaly silt loams (KaE2) and Calvin-Klinesville shaly silt loams (CkC2).

<b>Approximate Age:</b>	90 years
<b>Size Class:</b>	Sawtimber (14"-20" dbh)
<b>Trees per acre:</b>	65
<b>Mean Stand Diameter:</b>	17.5"
<b>Timber Quality:</b>	Good
<b>Growth rate:</b>	2%
<b>Basal area (stocking):</b>	110 (understocked)
<b>Stand Volume:</b>	This stand is slightly understocked. Retain current stocking as area should be maintained as wetland area with 100-foot buffer along stream.
<b>Habitat/wildlife use:</b>	This stream corridor provides special wildlife, and fisheries habitat. Unique wetland plant species exist here such as sensitive fern, skunk cabbage and winterberry.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand is in a wetland area and "no harvesting" policy should be adopted here to protect the water resource. Reduce invasive species, and the deer population.
<b>Water quality issues:</b>	There are concerns to protect this stream corridor, if any Silvicultural practices are employed. Always maintain 100-foot buffer along stream.
<b>Natural features:</b>	Good potential for wetland aquatic species such as tree frogs and salamanders.
<b>Owner objective:</b>	Protect the stream and geology of the site at all cost. Control invasive species. Reduce deer population.

### **Silvicultural Prescription:**

**Silvicultural System:** Limited use area, due to stream corridor.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers. Possible tree planting area in the future after invasives and deer are controlled. Plant native wetland species such as winterberry, red dosier dogwood, pin oak, swamp white oak, and sycamore.

## **Planned Activities:**

2020:	Reduce the deer population. Control invasive species, such as mile-a-minute and multiflora rose, for the first 5 years of the plan. Protect water resource.
Priority:	1
2021:	Control invasives and use volunteer assistance for its removal. Remove Oriental bittersweet which is girdling trees. Continue deer control. Protect water resource.
Priority:	2
2022-2025:	Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control. Possible wetland tree planting once invasives are under control. Tree planting needs to occur with tree shelters or small woven wire fences.

## **Management Unit 3a**

<b>Land Area:</b>	0.6 acres
<b>Land use history:</b>	This small stand is a white pine plantation within stand 3.
<b>Forest Group:</b>	
<b>Existing:</b>	White pine plantation
<b>Potential:</b>	White pine plantation
<b>Successional Trend:</b>	There are very few trees in the understory. Much of understory is in undesirable form, such as non-native invasives and spice bush (competitive native shrub).
<b>Forest Health:</b>	This plantation is declining primarily from oriental bittersweet climbing and girdling trees. In addition to the bittersweet there are many other invasive species in the understory, such as multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. The overstory provides dense shade and combined with heavy deer browse, there is no regeneration. Therefore, the sustainability of this stand is at risk.
<b>Site Quality:</b>	Poor to moderate (the absence of regeneration is not due to site quality, but due to heavy shade from the conifer overstory, presence of invasive plants, and deer browse). Soils here are Calvin-Klinesville shaly silt loams (CkC2).
<b>Approximate Age:</b>	50 years

<b>Size Class:</b>	Small sawtimber (12"-18" dbh)
<b>Trees per acre:</b>	70
<b>Mean Stand Diameter:</b>	16"
<b>Timber Quality:</b>	Medium
<b>Growth rate:</b>	2.5%
<b>Basal area (stocking):</b>	170 (fully stocked)
<b>Stand Volume:</b>	This stand is fully stocked but in moderate decline due to bittersweet presence.
<b>Habitat/wildlife use:</b>	There is an overpopulation of deer, and an aggressive doe hunting program should be initiated. There are no established seedlings in the understory. There is good potential for nesting sites for birds of prey in this area. Present conifer cover serves as excellent thermal cover for wildlife during winter months. More detailed wildlife recommendations will be included in the Applied Ecological Science wildlife study.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand has potential for softwood timber production.
<b>Water quality issues:</b>	Being a sub-unit of Unit 3, this area is within a limited use area (buffer). However, if proper BMPs are utilized a light thinning could be employed here to remove declining and dead trees outside of the 100-foot buffer laid out for Unit 3.
<b>Natural features:</b>	Good potential for nesting sites for birds of prey. Thermal cover in winter months.
<b>Owner objective:</b>	Control invasive species. Reduce deer population. Utilize Silvicultural applications shown in summary sheets.

### **Silvicultural Prescription:**

<b>Silvicultural System:</b>	Uneven-aged Management with 60-80 year rotation. A light thinning could be employed here to remove declining and dead trees outside of the 100-foot buffer laid out for Unit 3.
<b>Details of Silviculture:</b>	Control invasive species in this stand. Continue to promote conifer cover type here with supplemental plantings of pine and spruce.



## Planned Activities:

2020:	Reduce the deer population. Control invasive species for the first 5 years of the plan.
Priority:	1
2021:	Control invasives and use volunteer assistance for its removal. Remove Oriental bittersweet which is girdling trees. Continue deer control.
Priority:	2
2022-2025:	Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Tree planting needs to occur with tree shelters or small woven wire fences. Consider deer enclosure fencing. Continue deer control. Possible thinning. Thinning should promote establishment of new seedling growth.

## Management Unit 4

<b>Land Area:</b>	49 acres
<b>Land use history:</b>	White pine, Norway spruce plantation. Previously an agricultural field.
<b>Forest Group:</b>	
<b>Existing:</b>	White pine/Norway spruce
<b>Potential:</b>	White pine/Norway spruce
<b>Successional Trend:</b>	The pines and spruce are being adversely affected by competing vegetation, especially oriental bittersweet. Many trees are declining from the “girdling” effect of this invasive vine. This management unit will continue to decline without reduction of the bittersweet, and other invasive species.
<b>Forest Health:</b>	This stand is not healthy, as the conifer overstory is in decline. There are many invasive species in the understory, such as multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. The overstory provides dense shade and combined with heavy deer browse, there is no regeneration. Therefore, the sustainability of this stand is at risk.
<b>Site Quality:</b>	Moderate (the absence of regeneration is not due to site quality, but due to heavy shade from the conifer overstory, presence of invasive plants, and deer browse). Soils here are Calvin-Leck Kill shaly silt loams (CIB2).
<b>Approximate Age:</b>	50 years

<b>Size Class:</b>	Medium sawtimber (14"-20" dbh)
<b>Trees per acre:</b>	92
<b>Mean Stand Diameter:</b>	16.5"
<b>Timber Quality:</b>	Medium
<b>Growth rate:</b>	2.5%
<b>Basal area (stocking):</b>	170 (fully stocked)
<b>Stand Volume:</b>	This stand is fully stocked. Following control of invasives and reduction of deer herd for 5 years, a light thinning of declining trees is recommended.
<b>Habitat/wildlife use:</b>	There is an overpopulation of deer, and an aggressive doe hunting program should be initiated. There are no established seedlings in the understory. There is good potential for nesting sites for birds of prey in this area. Present conifer cover serves as excellent thermal cover for wildlife during winter months. More detailed wildlife recommendations will be included in the Applied Ecological Science wildlife study.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand has potential for softwood timber production.
<b>Water quality issues:</b>	There are no water quality issues in this mgmt. unit if best management practices are followed. Maintain 100' buffer along western edge where stream corridor is located.
<b>Natural features:</b>	Good potential for nesting sites for birds of prey.
<b>Owner objective:</b>	Control invasive species. Reduce deer population for first 5 years, then utilize Silvicultural applications shown in summary sheets.

### **Silvicultural Prescription:**

**Silvicultural System:** Even-aged Management with 60-80 year rotation

**Details of Silviculture:** Control invasive species in this stand. In year 5 we recommend a pre-harvest herbicide application. Then conduct a light commercial thinning in which 20 to 30% of the board footage is removed by taking degraded trees, multiple stemmed trees and trees that are too crowded for optimum growth. Continue to promote conifer cover type here with supplemental plantings of pine and spruce. Thinning should promote establishment of new seedling growth.

## Planned Activities:

- 2020: Reduce the deer population. Control invasive species (especially oriental bittersweet) for the first 5 years of the plan.
- Priority: 1
- 2021: Control invasives and use volunteer assistance for its removal. Remove Oriental bittersweet which is girdling trees. Continue deer control.
- Priority: 2
- 2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Tree planting needs to occur with tree shelters or small woven wire fences. Consider large deer enclosure (fencing). Continue deer control. Monitor invasives and deer population prior to harvesting operations.

## Management Unit 5

- Land Area:** 23 acres
- Land use history:** Reverting agricultural land. Larch/pine/spruce plantation now.
- Forest Group:**
- Existing:** Larch/white pine/Norway spruce with some tulip poplar
  - Potential:** Larch/white pine/Norway spruce/hardwoods
- Successional Trend:** This stand is a plantation with many open field areas. All fields are over ridden with Japanese stiltgrass. The overstory is being adversely affected by competing vegetation, especially oriental bittersweet. Many trees are declining from the “girdling” effect of this invasive vine. This management unit will continue to decline without reduction of the bittersweet, Japanese stiltgrass, and other invasive species.
- Forest Health:** This stand is not healthy, as the conifer overstory is in decline. There are many invasive species in the understory, such as multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. Thus, combined with heavy deer browse, there is no regeneration. There are no seedlings to replace trees that may die or be removed through a harvest. Therefore, the sustainability of this stand is at risk. There is a stream corridor on the western edge in which a 100’ buffer should be applied appropriately.

**Site Quality:** Moderate (the absence of regeneration is not due to site quality, but due to heavy presence of invasive plants, and deer browse). Soils here are Calvin-Leck Kill shaly silt loams (CIB2) and Calvin-Leck Kill shaly silt loams (CIC2).

**Approximate Age:** 50 years

**Size Class:** Medium sawtimber (14"-20" dbh)

**Trees per acre:** 40

**Mean Stand Diameter:** 18"

**Timber Quality:** Medium

**Growth rate:** 2%

**Basal area (stocking):** 150 (understocked)

**Stand Volume:** This stand is understocked. Following control of invasives and reduction of deer herd for 5 years, a light thinning of declining trees is recommended.

**Habitat/wildlife use:** This stand is dominated by deer. An aggressive doe hunting program should be initiated. Many species of wildlife are present including: red-tailed hawks, American crows, pileated and hairy woodpeckers, wood thrushes, but few interior dwelling warblers. There are many voles, field mice, and chipmunks. There is good potential for nesting sites for birds of prey in this area. Present conifer cover serves as excellent thermal cover for wildlife during winter months. Open fields should have stiltgrass controlled, then planted with native grass/pollinator seed mix or white pine and other conifer seedlings. More detailed wildlife recommendations will be included in the Applied Ecological Science wildlife study.

**Recreation:** This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.

**Potential for timber:** This stand has potential for timber production.

**Water quality issues:** There are no water quality issues in this mgmt. unit if best management practices are followed. Maintain 100' buffer along western edge where stream corridor is located.

**Natural features:** Good potential for nesting sites for birds of prey.

**Owner objective:** Control invasive species. Reduce deer population for first 5 years, then utilize Silvicultural applications shown in summary sheets.

## Silvicultural Prescription:

**Silvicultural System:** Even-aged Management with 60-80 year rotation

**Details of Silviculture:** Control invasive species in this stand. In year 5 we recommend a pre-harvest herbicide application. Then conduct a light commercial thinning in which 20 to 30% of the board footage is removed by taking degraded trees, multiple stemmed trees and trees that are too crowded for optimum growth. Continue to promote conifer cover type here with supplemental plantings of pine and spruce. Thinning should promote establishment of new seedling growth.

## Planned Activities:

2020: Reduce the deer population. Control invasive species (especially oriental bittersweet) for the first 5 years of the plan.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Remove Oriental bittersweet which is girdling trees. Continue deer control.

Priority: 2

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Tree planting needs to occur with tree shelters or small woven wire fences. Consider large deer enclosure (fencing). Continue deer control. Monitor invasives and deer population prior to harvesting operations.

## Management Unit 6

**Land Area:** 8 acres

**Land use history:** This stand has been a mixed hardwood forest for a long time. Clark's Valley Road (Route 325) borders this stand to the southeast.

### **Forest Group:**

**Existing:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Potential:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Successional Trend:** Should continue to be a tulip poplar, mixed oak, hardwood forest.

**Forest Health:** Many individual trees are healthy, but the overall stand is not, with some oak decline present. There is no evidence of native tree regeneration due to heavy deer browse and the presence of invasive plants. Therefore, invasive species



need to be controlled and the deer population needs to be reduced. Invasive plant species in the understory include; multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. With these factors in place the sustainability of this stand is at risk.

<b>Site Quality:</b>	Moderate. Soils are Klinesville shaly silt loams (KaE2) and Calvin-Klinesville shaly silt loams, Calvin-Leck Kill shaly silt loams (CIC2) and Basher silt loam (Bc).
<b>Approximate Age:</b>	90 years
<b>Size Class:</b>	Sawtimber (14"-20" dbh)
<b>Trees per acre:</b>	68
<b>Mean Stand Diameter:</b>	17.5"
<b>Timber Quality:</b>	Good
<b>Growth rate:</b>	3.5%
<b>Basal area (stocking):</b>	160 (understocked)
<b>Stand Volume:</b>	This stand is slightly understocked. Retain current stocking.
<b>Habitat/wildlife use:</b>	Important hard mast producing area due to presence of oak and hickory species. Good songbird nesting habitat.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand has potential for timber production following reduction of invasive species, and reduction of the deer population for the first 5 years.
<b>Water quality issues:</b>	There are concerns to protect this stream corridor, if any Silvicultural practices are employed. Always maintain 100-foot buffer along stream.
<b>Natural features:</b>	Clark's Creek, a high quality trout stream, is located across Clark's Valley Road (Route 325) to the southeast. Buffer stream for water quality and road for aesthetic purposes.
<b>Owner objective:</b>	Protect the stream, geology, and aesthetics along road at all cost. Maintain for long term, healthy hardwood stand. There is no regeneration due to heavy deer browsing and heavy invasive encroachment on the forest floor. The invasive species need to be controlled, and an aggressive deer hunting program needs to be implemented for the first 5 years of the plan.

## **Silvicultural Prescription:**

**Silvicultural System:** Even-aged Management with 80-100 year rotation.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers.

## **Planned Activities:**

2020: Reduce the deer population. Control invasive species for the first 5 years of the plan. Specifically, tree-of-heaven, which is primary host for spotted lanternfly.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Continue deer control. Specifically, tree-of-heaven, which is primary host for spotted lanternfly.

Priority: 1

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control.

## **Management Unit 7**

**Land Area:** 11 acres

**Land use history:** This stand has been a mixed hardwood forest for a long time. Clark's Valley Road (Route 325) borders this stand to the southeast.

### **Forest Group:**

**Existing:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Potential:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Successional Trend:** Should develop into a tulip poplar stand with some oak mixed in lightly.

**Forest Health:** This stand is in a state of minor decline, with many oak trees falling out due to heavy competition in the stem exclusion stage. There is no evidence of native tree regeneration due to heavy deer browse and the presence of invasive plants. Therefore, invasive species need to be controlled and the deer population needs to be reduced. Invasive plant species in the understory include; multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. With these factors in place the sustainability of this stand is at risk.

**Site Quality:** Moderate. Soils are Calvin-Leck Kill shaly silt loams (ClB2), Klinesville shaly silt loams (KaE2) and Calvin-Klinesville shaly silt loams, Calvin-Leck Kill shaly silt loams (ClC2) and Basher silt loam (Bc).

**Approximate Age:** 40 years

**Size Class:** Pole (5"-11" dbh)

**Trees per acre:** 55

**Mean Stand Diameter:** 9"

**Timber Quality:** Good

**Growth rate:** 2.5%

**Basal area (stocking):** 90 (understocked)

**Stand Volume:** This stand is slightly understocked. Retain current stocking.

**Habitat/wildlife use:** Important hard mast producing area due to presence of oak and hickory species. Good songbird nesting habitat.

**Recreation:** This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.

**Potential for timber:** This stand has potential for timber production following reduction of invasive species, and reduction of the deer population for the first 5 years. However, it will be another 30-40 years until this stand is economically viable for a harvest.

**Water quality issues:** There are concerns to protect this stream corridor, if any Silvicultural practices are employed. Always maintain 100-foot buffer along stream.

**Natural features:** Clark's Creek, a high quality trout stream, is located across Clark's Valley Road (Route 325) to the southeast. Buffer stream for water quality and road for aesthetic purposes.

**Owner objective:** Protect the stream, geology, and aesthetics along road at all cost. Maintain for long term, healthy hardwood stand that supports valuable timber and suitable habitat for many wildlife species. There is no regeneration due to heavy deer browsing and heavy invasive encroachment on the forest floor. The invasive species need to be controlled, and an aggressive deer hunting program needs to be implemented for the first 5 years of the plan.

### **Silvicultural Prescription:**

**Silvicultural System:** Even-aged Management with 80-100 year rotation.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers.

### **Planned Activities:**

2020: Reduce the deer population. Control invasive species for the first 5 years of the plan. Specifically, tree-of-heaven, which is primary host for spotted lanternfly.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Continue deer control. Specifically, tree-of-heaven, which is primary host for spotted lanternfly.

Priority: 1

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control.

## **Stand 2: Northern Portion of Property (Mgmt Units 8-9)**

### **Management Unit 8**

**Land Area:** 145 acres

**Land use history:** This stand has been a mixed hardwood forest for a long time.

**Forest Group:**

**Existing:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Potential:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Successional Trend:** Should continue to be a tulip poplar, mixed oak, hardwood forest.

**Forest Health:** The overstory of this stand is in fairly good health, with light oak decline occurring over much of the stand. However, there is no evidence of native tree regeneration due to heavy deer browse and the presence of invasive plants. Therefore, invasive species need to be controlled and the deer population needs to be reduced. Invasive plant species in the understory include; multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. With these factors in place the sustainability of this stand is at risk.

**Site Quality:** Moderate. Soils include Dekalb and Lehigh very stony sandy loams (DIF), Laidig very stony loam (LdD), Calvin-Leck Kill shaly silt loams (CIC2) and, Laidig gravelly loam (LaC2).

**Approximate Age:** 90 years

**Size Class:** Sawtimber (14"-22" dbh)

**Trees per acre:** 56

**Mean Stand Diameter:** 18"

**Timber Quality:** Good

**Growth rate:** 2%

**Basal area (stocking):** 150 (understocked)

**Stand Volume:** This stand is slightly understocked. Retain current stocking.

**Habitat/wildlife use:** Important hard mast producing area due to presence of oak and hickory species. Great songbird nesting habitat. Important corridor for migratory warbler species.

**Recreation:** This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing. Fix eroding trail on northwest part of unit, by placing switchbacks in to reduce slope of trail.

**Potential for timber:** This stand has great potential for timber production following reduction of invasive species, and reduction of the deer population for the first 5 years.

**Water quality issues:** There are no water quality issues in this mgmt. unit if best management practices are followed. Maintain 100' buffer along southern edge where ephemeral stream corridor is located.

**Natural features:** This site is very different compared to the southern units (Stand 1) as they are mostly plantation forests. This is a rocky, poplar, oak, hickory forest with bigger timber and adequate trail system to support substantial recreation in the form of hiking and other passive activities.

**Owner objective:** Protect the headwaters to main waterway on property at all cost. Maintain for long term, as a healthy oak/hickory/poplar hardwood stand. Presently there is no regeneration due to heavy deer browsing and heavy invasive encroachment on the forest floor. The invasive species need to be controlled, and an aggressive deer hunting program needs to be implemented for the first 5 years of the plan until any timber management can occur.

## Silvicultural Prescription:

**Silvicultural System:** Even-aged Management with 80-100 year rotation.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers. Once deer and invasives are reduced, a shelterwood harvest could occur here. Monitor for desirable seedlings and plan shelterwood harvest accordingly. In order to get desirable seedlings and native plant communities to occur in understory deer and invasive plants **NEED** to be controlled!

## Planned Activities:

2020: Reduce the deer population. Control invasive species for the first 5 years of the plan.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Continue deer control.

Priority: 1

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control. Possible shelterwood treatment after 2025 if desirable regeneration is established in understory. Harvest all low quality stems and most of the black birch in this treatment. May need to use deer fence to promote seedling establishment if deer numbers are still elevated, and heavy browse is still occurring.

## Management Unit 8a

**Land Area:** 18 acres

**Land use history:** This stand has been a mixed hardwood forest for a long time. This sub-section of Unit 8 contains two stream corridors and other hydric areas.

### **Forest Group:**

**Existing:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Potential:** Tulip poplar, mixed oak, hickory (mixed hardwoods)

**Successional Trend:** Should continue to be a tulip poplar, mixed oak, hardwood forest.

**Forest Health:** The overstory of this stand is in fairly good health, with light oak decline occurring over much of the stand. However, there is no evidence of native tree



regeneration due to heavy deer browse and the presence of invasive plants. Therefore, invasive species need to be controlled and the deer population needs to be reduced. Invasive plant species in the understory include; multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. With these factors in place the sustainability of this stand is at risk.

<b>Site Quality:</b>	Moderate. Soils include Calvin-Klinesville shaly silt loams (CkC2) and Andover very stony loam (AoB).
<b>Approximate Age:</b>	90 years
<b>Size Class:</b>	Sawtimber (14"-22" dbh)
<b>Trees per acre:</b>	56
<b>Mean Stand Diameter:</b>	18"
<b>Timber Quality:</b>	Good
<b>Growth rate:</b>	2%
<b>Basal area (stocking):</b>	150 (understocked)
<b>Stand Volume:</b>	This stand is slightly understocked. Retain current stocking.
<b>Habitat/wildlife use:</b>	Important hard mast producing area due to presence of oak and hickory species. Great songbird nesting habitat. Important corridor for migratory warbler species.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand is in a wetland area and a "no harvesting" policy should be adopted here to protect the water resource. Reduce invasive species, and the deer population.
<b>Water quality issues:</b>	Water quality is a major component here and best management practices (BMPs) should be strictly followed to protect the hydrology of the site. Maintain 100' buffer along primary stream channel and all ephemeral streams.
<b>Natural features:</b>	This site is very different compared to the southern units (Stand 1) as they are mostly plantation forests. This is a rocky, poplar, oak, hickory forest with bigger timber and adequate trail system to support substantial recreation in the form of hiking and other passive activities.

**Owner objective:** Protect the headwaters to main waterway on property at all cost. Maintain for long term, as a healthy oak/hickory/poplar hardwood stand. Presently there is no regeneration due to heavy deer browsing and heavy invasive encroachment on the forest floor. The invasive species need to be controlled, and an aggressive deer hunting program needs to be implemented.

### **Silvicultural Prescription:**

**Silvicultural System:** Limited use area, due to stream corridor. No harvesting.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers. Protect water resource.

### **Planned Activities:**

2020: Reduce the deer population. Control invasive species for the first 5 years of the plan. Protect water resource.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Continue deer control. Protect water resource.

Priority: 1

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control.

### **Management Unit 9**

**Land Area:** 5 acres

**Land use history:** Reverting agricultural land. This unit contains an ephemeral stream and other hydric areas such as seasonal spring seeps.

#### **Forest Group:**

**Existing:** Tulip poplar, maple, cherry (mixed hardwoods)

**Potential:** Tulip poplar, maple, cherry (mixed hardwoods)

**Successional Trend:** Should continue to be a tulip poplar, maple, black cherry forest, with oak declining. Ash mortality has occurred due to emerald ash borer (EAB).

**Forest Health:** The overstory of this stand is in fairly good health, other than the ash mortality from EAB. There is no evidence of native tree regeneration due to heavy deer browse and the presence of invasive plants. Therefore, invasive species need to be controlled and the deer population needs to be reduced. Invasive plant

species in the understory include; multiflora rose, Japanese silt grass, mile-a-minute weed, white garlic mustard, tree of heaven, Japanese barberry, wild grape, privet, Oriental bittersweet, Autumn olive, Bush Honeysuckle, wine berry, barberry and Japanese Honeysuckle. With these factors in place the sustainability of this stand is at risk.

<b>Site Quality:</b>	Moderate. Soils are Laidig gravelly loam (LaC2).
<b>Approximate Age:</b>	60-70 years
<b>Size Class:</b>	Small sawtimber (14"-18" dbh)
<b>Trees per acre:</b>	30
<b>Mean Stand Diameter:</b>	16"
<b>Timber Quality:</b>	Poor
<b>Growth rate:</b>	2.5%
<b>Basal area (stocking):</b>	110 (understocked)
<b>Stand Volume:</b>	This stand is understocked. Retain current stocking.
<b>Habitat/wildlife use:</b>	Important hard and soft mast producing area due to presence of oak, hickory, and cherry. Great songbird nesting habitat. Important corridor for migratory warbler species.
<b>Recreation:</b>	This stand has potential for hiking, bird watching, wildlife observation, deer hunting, nature study, orienteering and cross-country skiing.
<b>Potential for timber:</b>	This stand is, for the most part, in a wetland area and a "no harvesting" policy should be adopted here to protect the water resource. Reduce invasive species, and the deer population.
<b>Water quality issues:</b>	Water quality is a major component here and best management practices (BMPs) should be strictly followed to protect the hydrology of the site. Maintain 100' buffer along primary stream channel and all ephemeral streams.
<b>Natural features:</b>	Reverting ag land. Seasonally wet with ephemeral springs and stream.
<b>Owner objective:</b>	Protect these important headwaters at all cost. Maintain for long term, as a healthy mixed hardwood stand promoting wetland species such as sycamore, silver maple, pin oak, and winterberry. Presently there is no regeneration due to heavy deer browsing and heavy invasive encroachment on the forest floor. The invasive species need to be controlled, and an aggressive deer hunting program needs to be implemented.

## **Silvicultural Prescription:**

**Silvicultural System:** Limited use area, due to stream corridor. No harvesting. Promote wetland tree and shrub species.

**Details of Silviculture:** Control invasive species in this stand and reduce deer numbers. Protect water resource.

## **Planned Activities:**

2020: Reduce the deer population. Control invasive species for the first 5 years of the plan. Protect water resource.

Priority: 1

2021: Control invasives and use volunteer assistance for its removal. Continue deer control. Protect water resource.

Priority: 1

2022-2025: Continue control of invasive species. Search for funding sources for treatments. Identify volunteer groups and use their assistance for invasive removal. Continue deer control.

## **Other recommendations:**

1. Incorporate wildlife management recommendations from Applied Ecological Services report, once submitted.
2. Possible partnership with DCNR BoF and PA Game Commission to conduct Rx burning in 2 meadows. Seek input from DCNR and PGC for this activity.

## **Deer and invasive control - The common thread**

If there is one common thread through the ten years of the plan, it is the equal prioritizing of controlling invasive species, and controlling the deer population (especially reducing the doe population). If all of the invasive species are under control, there will still be little progress in improving the health of the woodlands on this property, as the same level of deer browsing will eliminate the success of natural regeneration.

If controlling the deer population was the main management tool, the invasive species would only increase, and continue to prevent the future health of the forest.

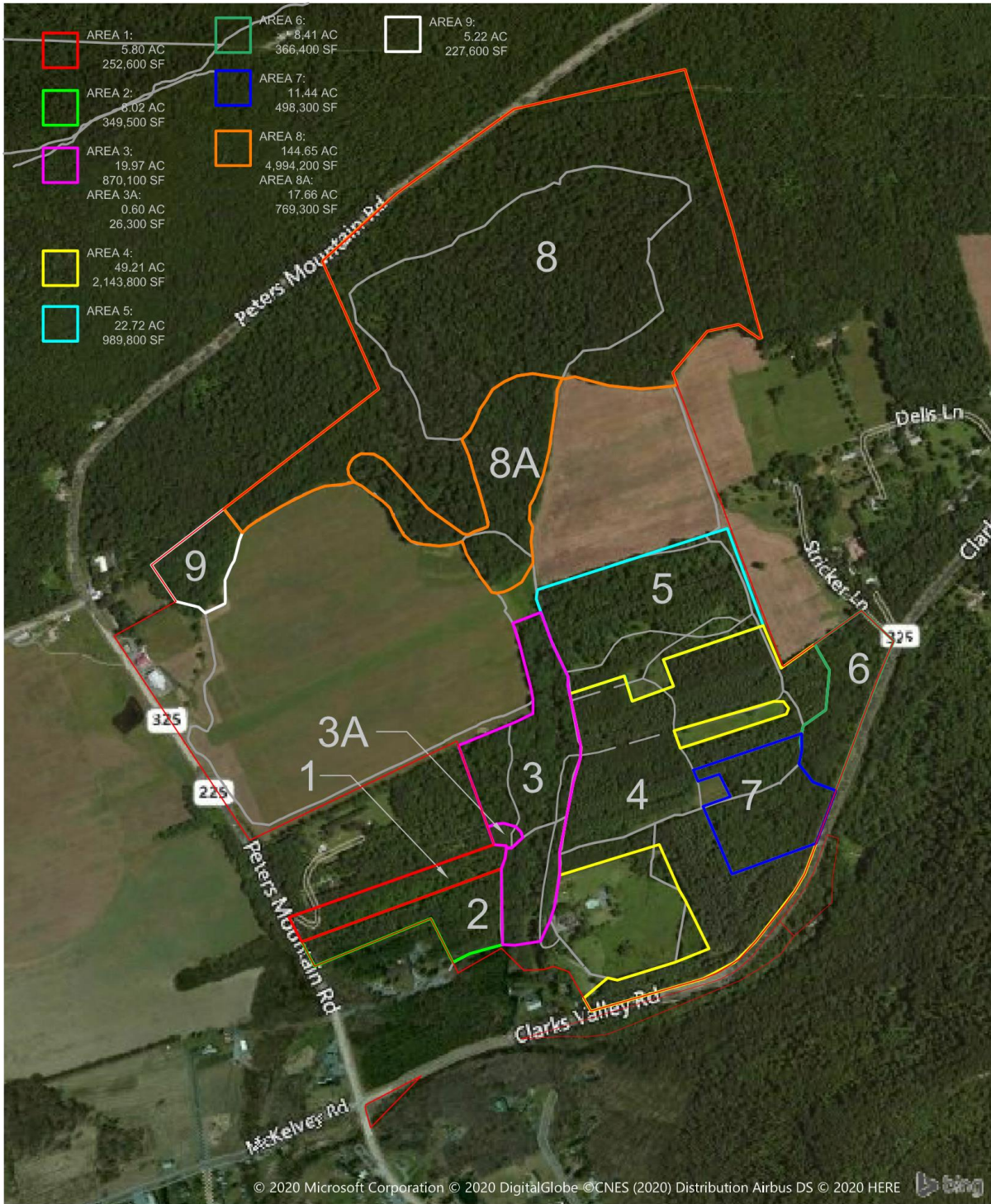
Therefore, both management tools should be equally, and continually implemented throughout the next ten years.

It is obvious that this is not a simple process. Therefore, research of other woodland management plans in central Pennsylvania that have successfully used both tools over a period of time, should be done to find a general template for success.

I would recommend that the Dauphin County Parks Department communicates with the Pennsylvania Game commission for their input on developing a successful deer hunting program.

The sample plots that were taken in all of the management units document that there is virtually no natural regeneration of the dominant species of trees throughout all of the management units. This is of course due to the combined detrimental effect of invasive species encroachment, and excessive deer browsing.

I have seen successful deer population reduction work as a result of prioritizing an archery hunting program, with the requirement that the bow hunters harvest does only. It then could be considered that the bow hunter could harvest a buck after proving that they have harvested a doe first. This can be also be done with muzzle loader hunting.



# DETWEILER FOREST MANAGEMENT AREAS



**Activity Plan:**

Detailed plans by year

- 2020 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2021 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2022 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2023 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2024 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2025 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
	2	Plant trees and shelters
MU 2	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 3	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 5	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 6	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 7	1	Control invasive plants and control the deer population
	2	Light commercial thinning
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
	2	Light commercial thinning

MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

-2026 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
	2	Tree planting
MU 3	1	Control invasive plants and control the deer population
	2	Tree planting
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 5	1	Control invasive plants and control the deer population
	2	Tree planting
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
	2	Tree planting
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2027 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
	2	Deer Fencing
MU 5	1	Control invasive plants and control the deer population
	2	Deer Fencing
MU 6	1	Control invasive plants and control the deer population

	2	Tree planting
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
	2	Light commercial thinning
	3	Deer Fencing
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2028 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
	2	Tree planting
MU 2	1	Control invasive plants and control the deer population
	2	Tree planting
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population
MU 5	1	Control invasive plants and control the deer population
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
	2	Tree planting
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
	2	Tree planting
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population

- 2029 -

<b>Stand 1</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 1	1	Control invasive plants and control the deer population.
MU 2	1	Control invasive plants and control the deer population
MU 3	1	Control invasive plants and control the deer population
MU 3a	1	Control invasive plants and control the deer population
MU 4	1	Control invasive plants and control the deer population

	2	Light commercial thinning
MU 5	1	Control invasive plants and control the deer population
	2	Light commercial thinning
MU 6	1	Control invasive plants and control the deer population
MU 7	1	Control invasive plants and control the deer population
<b>Stand 2</b>	<b>PRIORITY</b>	<b>ACTIVITY</b>
MU 8	1	Control invasive plants and control the deer population
	2	Tree planting
MU 8a	1	Control invasive plants and control the deer population
MU 9	1	Control invasive plants and control the deer population



Comparison of management units on the property

<b>Stand 1</b>	<b>ACRES</b>	<b>Forest Group</b>	<b>STAND DIAMETER</b>	<b>BASAL AREA</b>	<b>SILVICULTURAL SYSTEM</b>
MU 1	5.80	Successional Field	10 in.	N/A	Even aged mgmt. 80 to 100 years.
MU 2	8.02	Pine/Spruce Plantation	15 in	170	Even-aged mgmt. 60 to 80 year Rotation
MU 3	19.97	Mixed Hardwoods	17.5in.	110	Even-aged mgmt. limited use area due to stream corridor
MU 3a	.60	Pine Plantation	16 in	170	Uneven-aged management, 60 to 80 years.
MU 4	49.21	Pine/Spruce/Larch Plantation	16.5 in	170	Even-aged mgmt. 60 to 80 year Rotation
MU 5	22.72	Pine/Spruce/Larch Plantation	18 in	150	Even-aged mgmt. 60 to 80 year Rotation
MU 6	8.41	Mixed hardwoods	17.5 in	160	Even aged mgmt. 80 to 100 year rotation
MU 7	11.44	Mixed hardwoods	9 in	90	Even aged mgmt. 80 to 100 year rotation
<b>Stand 2</b>	<b>Acres</b>	<b>Forest Group</b>	<b>STAND DIAMETER</b>	<b>BASAL AREA</b>	<b>SILVICULTURAL SYSTEM</b>
MU 8	144.65	Mixed hardwoods	18 in	150	Even-aged mgmt., 80 to 100 year rotation
MU 8a	17.66	Mixed hardwoods Stream Corridors	18 in	150	Limited use area. Stream corridor protection
MU 9	5.22	Mixed hardwoods Spring Headwaters	16 in	110	Limited use area. Stream corridor protection Spring protection area
Total	294				

**Also attached: Management unit spread sheets (stand analysis), and other appendices**



Stand 1	Plot	summary	Dia	Tot	Dia BO/RO	Tot Dia	PO	Tot Dia	RM	Tot Dia	BC	Tot Dia	BB	Tot Dia	AB	Tot Dia	OH	Dia Tot	Bolt count	Total Pulp Bolts	Tons/Acre .9	Total trees at each point	Total basal area at each point
	1		TP																				
mgt. unit	2	No plots taken																					
3	3	trees/Ac	5 to 10																				
	4																						
	5																						
	6	growth rate	N/A																				
	7																						
	8																						
	9																						
	10																						
	11																						
	12																						
	13																						
	14																						
	15																						
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	23																						
	24																						
	25																						
	26																						
	27																						
	28																						
	29																						
	30																						
		0	0																				
Subtotal			average BA	110																			110



SPECIES	DIAMETER	1 LOG		SPECIES	DIAMETER	1.5 LOGS	
		# OF TREES	VOLUME			# OF TREES	VOLUME
	12		57	12		80	0
	13		68	13		96	0
	14		79	14	2	110	220
	15		92	15	2	128	256
	16		105	16	1	147	147
	17		118	17	2	166	332
	18		135	18	3	188	564
	19		152	19	1	212	212
	20		170	20		236	0
	21		189	21		262	0
	22		209	22		290	0
	23		228	23		316	0
	24		252	24		346	0
	25		275	25		376	0
	26		300	26		410	0
	27		325	27		440	0
	28		348	28		480	0
	29		378	29		515	0
	30		410	30		550	0
	31		440	31		595	0
	32		470	32		635	0
	33		500	33		680	0
	34		530	34		725	0
	35		565	35		770	0
	36		600	36		820	0
		0			11		1731

SPECIES	2 LOGS		
	DIAMETER	# OF TREES	TOTAL VOL.
12	5	100	500
13	7	118	826
14	5	140	700
15	6	160	960
16	6	180	1080
17	4	208	832
18	3	235	705
19	2	265	530
20	1	295	295
21	3	328	984
22		362	0
23		396	0
24		430	0
25		470	0
26		510	0
27		550	0
28		595	0
29		640	0
30		685	0
31		740	0
32		790	0
33		840	0
34		900	0
35		950	0
36		1010	0
	42		7412

SPECIES	2.5 LOGS		
	DIAMETER	# OF TREES	TOTAL VOL.
12		114	0
13		134	0
14		163	0
15	2	188	376
16	5	213	1065
17	4	245	980
18	2	278	556
19	2	314	628
20	3	350	1050
21	2	390	780
22		430	0
23		470	0
24		510	0
25		555	0
26		605	0
27		650	0
28		700	0
29		760	0
30		810	0
31		870	0
32		930	0
33		990	0
34		1060	0
35		1120	0
36		1190	0
	20		5435

SPECIES	DIAMETER	WP	3 LOGS		
			# OF TREES	VOLUME	TOTAL VOL
	12			124	0
	13			149	0
	14			184	0
	15			214	0
	16			247	0
	17			281	0
	18			320	0
	19			360	0
	20			400	0
	21			450	0
	22			495	0
	23			540	0
	24			595	0
	25			645	0
	26			700	0
	27			760	0
	28			810	0
	29			870	0
	30			930	0
	31			1000	0
	32			1070	0
	33			1140	0
	34			1210	0
	35			1290	0
	36			1370	0
		0			0

SPECIES	DIAMETER	WP	3.5 LOGS		
			# OF TREES	VOLUME	TOTAL VOL.
	12			130	0
	13			161	0
	14			194	0
	15			232	0
	16			274	0
	17			314	0
	18			360	0
	19			405	0
	20			450	0
	21			505	0
	22			555	0
	23			610	0
	24			670	0
	25			730	0
	26			790	0
	27			850	0
	28			920	0
	29			990	0
	30			1060	0
	31			1140	0
	32			1210	0
	33			1290	0
	34			1380	0
	35			1460	0
	36			1550	0
		0			0



SPECIES	DIAMETER	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
	12			0
	13		171	0
	14		205	0
	15		250	0
	16		295	0
	17		340	0
	18		400	0
	19		450	0
	20		500	0
	21		550	0
	22		610	0
	23		680	0
	24		740	0
	25		810	0
	26		880	0
	27		950	0
	28		1020	0
	29		1100	0
	30		1180	0
	31		1260	0
	32		1350	0
	33		1440	0
	34		1530	0
	35		1630	0
	36		1725	0
		0		0

SPECIES	DIAMETER	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
	12			0
	13			0
	14			0
	15			0
	16		326	0
	17		378	0
	18		440	0
	19		500	0
	20		570	0
	21		635	0
	22		715	0
	23		800	0
	24		870	0
	25		950	0
	26		1020	0
	27		1100	0
	28		1190	0
	29		1280	0
	30		1360	0
	31		1450	0
	32		1550	0
	33		1650	0
	34		1760	0
	35		1880	0
	36		2000	0
		0		0

Pine	# of Trees	Total Vol.	Avg. Vol.
	73	14578	199.6986

SPECIES NS		1 LOG		SPECIES NS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES
12		57	0	12	1
13		68	0	13	1
14	3	79	237	14	1
15	2	92	184	15	
16		105	0	16	
17		118	0	17	
18		135	0	18	
19	1	152	152	19	
20		170	0	20	
21		189	0	21	
22		209	0	22	
23		228	0	23	
24		252	0	24	
25		275	0	25	
26		300	0	26	
27		325	0	27	
28		348	0	28	
29		378	0	29	
30		410	0	30	
31		440	0	31	
32		470	0	32	
33		500	0	33	
34		530	0	34	
35		565	0	35	
36		600	0	36	
	6		573		3

SPECIES NS

2 LOGS

DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		100	0
13	1	118	118
14		140	0
15	3	160	480
16	1	180	180
17	3	208	624
18	1	235	235
19		265	0
20		295	0
21	1	328	328
22		362	0
23		396	0
24		430	0
25		470	0
26		510	0
27		550	0
28		595	0
29		640	0
30		685	0
31		740	0
32		790	0
33		840	0
34		900	0
35		950	0
36		1010	0
	10		1965

DIAMETER	# OF TREES	VOLUME
12		114
13		134
14		163
15		188
16	3	213
17	1	245
18	2	278
19	1	314
20		350
21		390
22		430
23		470
24		510
25		555
26		605
27		650
28		700
29		760
30		810
31		870
32		930
33		990
34		1060
35		1120
36		1190
	7	

Totals:

1.5 LOGS		SPECIES		NS		3 LOGS	
TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
80	12		124				0
96	13		149				0
110	14		184				0
0	15		214				0
0	16		247				0
0	17		281				0
0	18		320				0
0	19		360				0
0	20		400				0
0	21		450				0
0	22		495				0
0	23		540				0
0	24		595				0
0	25		645				0
0	26		700				0
0	27		760				0
0	28		810				0
0	29		870				0
0	30		930				0
0	31		1000				0
0	32		1070				0
0	33		1140				0
0	34		1210				0
0	35		1290				0
0	36		1370				0
286						0	0

2.5 LOGS SPECIES NS 4 LOGS

SPECIES		NS		3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		130			0
13		161			0
14		194			0
15		232			0
16		274			0
17		314			0
18		360			0
19		405			0
20		450			0
21		505			0
22		555			0
23		610			0
24		670			0
25		730			0
26		790			0
27		850			0
28		920			0
29		990			0
30		1060			0
31		1140			0
32		1210			0
33		1290			0
34		1380			0
35		1460			0
36		1550			0
			0		0

SPECIES NS 4.5 LOGS

TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
0	12			0
0	13		171	0
0	14		205	0
0	15		250	0
639	16		295	0
245	17		340	0
556	18		400	0
314	19		450	0
0	20		500	0
0	21		550	0
0	22		610	0
0	23		680	0
0	24		740	0
0	25		810	0
0	26		880	0
0	27		950	0
0	28		1020	0
0	29		1100	0
0	30		1180	0
0	31		1260	0
0	32		1350	0
0	33		1440	0
0	34		1530	0
0	35		1630	0
0	36		1725	0
1754		0		0

DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12			0
13			0
14			0
15			0
16		326	0
17		378	0
18		440	0
19		500	0
20		570	0
21		635	0
22		715	0
23		800	0
24		870	0
25		950	0
26		1020	0
27		1100	0
28		1190	0
29		1280	0
30		1360	0
31		1450	0
32		1550	0
33		1650	0
34		1760	0
35		1880	0
36		2000	0
	0		0

NS	# of Trees	Total Vol.	Avg. Vol.
	26	4578	176.0769

Stand 1 mgt.	Plot	Saw timber	Dia		Tot	Dia BO/RO	Tot	Dia	PO	Tot	Dia	RM	Tot	Dia	BC	Tot	Dia	BB	Tot	Dia	AB	Tot	Dia	OH	Tot	Pulp 5'	Total		Tons/ Acre .9	Total trees		Total basal area at each point
			TP	BO/RO			PO	RM		BC	BB		AB	OH		Pulp Bolts	Total trees at each point		Total basal area at each point													
	1	7																								20	20	18	9	90		
	2	6									6,9	2,8,4	2																10	100		
	3	5									8	1,6,6	2										6,10,	2				10	100			
	4	7									11,8,	2,11,11,	2										6	1				12	120			
	5	9									12,	1											6,8	2				11	110			
	6	9																					6,11,10	3				12	120			
	7	8									6,6	2											6,8	2				12	120			
	8	10									8,5	2																12	120			
	9	10									6	1					6	1					6	1				13	130			
	10	9									8,4	2				4	1											12	120			
	11	14							9	1			10	1														16	160			
	12																															
	13																															
	14																															
	15																															
	16																															
	17																															
	18																															
	19																															
	20																															
	21																															
	22																															
	23																															
	24																															
	25																															
	26																															
	27																															
	28																															
	29																															
	30																															
<b>Subtotal</b>		<b>94</b>	<b>0</b>	<b>average BA</b>	<b>110</b>																											<b>110</b>

SPECIES TP		1 LOG		SPECIES TP		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		57	0	12		80	0
13		68	0	13		96	0
14	1	79	79	14		110	0
15	3	92	276	15	2	128	256
16		105	0	16	2	147	294
17		118	0	17		166	0
18	1	135	135	18	2	188	376
19		152	0	19		212	0
20		170	0	20	1	236	236
21	1	189	189	21	1	262	262
22		209	0	22		290	0
23		228	0	23		316	0
24		252	0	24	1	346	346
25		275	0	25		376	0
26		300	0	26		410	0
27		325	0	27		440	0
28		348	0	28		480	0
29		378	0	29		515	0
30		410	0	30		550	0
31		440	0	31		595	0
32		470	0	32		635	0
33		500	0	33		680	0
34		530	0	34		725	0
35		565	0	35		770	0
36		600	0	36		820	0
	6		679		9		1770



SPECIES		TP	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14	2		140	280
15	3		160	480
16	4		180	720
17	2		208	416
18	2		235	470
19	3		265	795
20	2		295	590
21	1		328	328
22			362	0
23	1		396	396
24	1		430	430
25	2		470	940
26	2		510	1020
27	1		550	550
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
		26		7415

SPECIES		TP	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16	2		213	426
17	2		245	490
18	5		278	1390
19	3		314	942
20	2		350	700
21	2		390	780
22	1		430	430
23	2		470	940
24	3		510	1530
25			555	0
26			605	0
27	1		650	650
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
		23		8278

SPECIES		TP	3 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12			124	0
13			149	0
14			184	0
15			214	0
16			247	0
17			281	0
18			320	0
19			360	0
20			400	0
21	1		450	450
22			495	0
23	1		540	540
24			595	0
25	1		645	645
26			700	0
27	2		760	1520
28			810	0
29			870	0
30			930	0
31			1000	0
32			1070	0
33			1140	0
34			1210	0
35			1290	0
36			1370	0
		5		3155

SPECIES		TP	3.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			130	0
13			161	0
14			194	0
15			232	0
16			274	0
17			314	0
18			360	0
19			405	0
20			450	0
21			505	0
22			555	0
23			610	0
24			670	0
25			730	0
26			790	0
27			850	0
28			920	0
29			990	0
30			1060	0
31			1140	0
32			1210	0
33			1290	0
34			1380	0
35			1460	0
36			1550	0
		0		0

SPECIES		TP	4 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES		TP	4.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	69	21297	308.6522

SPECIES		CO		1 LOG		SPECIES		CO		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
12		57	0		12		80	0			
13		68	0		13		96	0			
14		79	0	detweiler	14		110	0			
15	2	92	184	<b>unit 3</b>	15	1	128	128			
16		105	0		16	2	147	294			
17		118	0		17		166	0			
18		135	0		18		188	0			
19		152	0		19		212	0			
20		170	0		20		236	0			
21		189	0		21		262	0			
22		209	0		22		290	0			
23		228	0		23		316	0			
24		252	0		24		346	0			
25		275	0		25		376	0			
26		300	0		26		410	0			
27		325	0		27		440	0			
28		348	0		28		480	0			
29		378	0		29		515	0			
30		410	0		30		550	0			
31		440	0		31		595	0			
32		470	0		32		635	0			
33		500	0		33		680	0			
34		530	0		34		725	0			
35		565	0		35		770	0			
36		600	0		36		820	0			
	2		184			3		422			

SPECIES		CO	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15			160	0
16			180	0
17			208	0
18	1		235	235
19	1		265	265
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	2			500

SPECIES		CO	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16			213	0
17			245	0
18			278	0
19			314	0
20			350	0
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	0			0

SPECIES		CO		3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12		124	0		
13		149	0		
14		184	0		
15		214	0		
16		247	0		
17		281	0		
18		320	0		
19		360	0		
20		400	0		
21		450	0		
22		495	0		
23		540	0		
24		595	0		
25		645	0		
26		700	0		
27		760	0		
28		810	0		
29		870	0		
30		930	0		
31		1000	0		
32		1070	0		
33		1140	0		
34		1210	0		
35		1290	0		
36		1370	0		
	0				

SPECIES		CO		3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		130	0		
13		161	0		
14		194	0		
15		232	0		
16		274	0		
17		314	0		
18		360	0		
19		405	0		
20		450	0		
21		505	0		
22		555	0		
23		610	0		
24		670	0		
25		730	0		
26		790	0		
27		850	0		
28		920	0		
29		990	0		
30		1060	0		
31		1140	0		
32		1210	0		
33		1290	0		
34		1380	0		
35		1460	0		
36		1550	0		
	0				

SPECIES		CO		4 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12			0		
13		171	0		
14		205	0		
15		250	0		
16		295	0		
17		340	0		
18		400	0		
19		450	0		
20		500	0		
21		550	0		
22		610	0		
23		680	0		
24		740	0		
25		810	0		
26		880	0		
27		950	0		
28		1020	0		
29		1100	0		
30		1180	0		
31		1260	0		
32		1350	0		
33		1440	0		
34		1530	0		
35		1630	0		
36		1725	0		
	0				

SPECIES		CO		4.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12			0		
13			0		
14			0		
15			0		
16		326	0		
17		378	0		
18		440	0		
19		500	0		
20		570	0		
21		635	0		
22		715	0		
23		800	0		
24		870	0		
25		950	0		
26		1020	0		
27		1100	0		
28		1190	0		
29		1280	0		
30		1360	0		
31		1450	0		
32		1550	0		
33		1650	0		
34		1760	0		
35		1880	0		
36		2000	0		
	0				

C OAK	# of Trees	Total Vol.	Avg. Vol.
	7	1106	158

Detweiler  
unit 3

SPECIES		BO/RO	1 LOG	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			57	0
13			68	0
14			79	0
15			92	0
16			105	0
17			118	0
18			135	0
19			152	0
20			170	0
21	1		189	189
22			209	0
23			228	0
24			252	0
25			275	0
26			300	0
27			325	0
28			348	0
29			378	0
30			410	0
31			440	0
32			470	0
33			500	0
34			530	0
35			565	0
36			600	0
	1			189

SPECIES		BO/RO	1.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			80	0
13			96	0
14			110	0
15			128	0
16			147	0
17			166	0
18	1		188	188
19			212	0
20			236	0
21	1		262	262
22			290	0
23			316	0
24			346	0
25			376	0
26			410	0
27			440	0
28			480	0
29			515	0
30			550	0
31			595	0
32			635	0
33			680	0
34			725	0
35			770	0
36			820	0
	2			450



SPECIES	BO/RO	2 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15			160	0
16			180	0
17			208	0
18			235	0
19			265	0
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28		1	595	595
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	1			595

SPECIES	BO/RO	2.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16			213	0
17			245	0
18			278	0
19			314	0
20			350	0
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	0			0

SPECIES	DIAMETER	3 LOGS	
		# OF TREES	TOTAL VOL
12		124	0
13		149	0
14		184	0
15		214	0
16		247	0
17		281	0
18		320	0
19		360	0
20		400	0
21		450	0
22		495	0
23		540	0
24		595	0
25		645	0
26		700	0
27		760	0
28		810	0
29		870	0
30		930	0
31		1000	0
32		1070	0
33		1140	0
34		1210	0
35		1290	0
36		1370	0
		0	0

SPECIES	DIAMETER	3.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12			130	0
13			161	0
14			194	0
15			232	0
16			274	0
17			314	0
18			360	0
19			405	0
20			450	0
21			505	0
22			555	0
23			610	0
24			670	0
25			730	0
26			790	0
27			850	0
28			920	0
29			990	0
30			1060	0
31			1140	0
32			1210	0
33			1290	0
34			1380	0
35			1460	0
36			1550	0
		0		0

SPECIES DIAMETER	BO/RO # OF TREES	4 LOGS	
		VOLUME	TOTAL VOL
12			0
13		171	0
14		205	0
15		250	0
16		295	0
17		340	0
18		400	0
19		450	0
20		500	0
21		550	0
22		610	0
23		680	0
24		740	0
25		810	0
26		880	0
27		950	0
28		1020	0
29		1100	0
30		1180	0
31		1260	0
32		1350	0
33		1440	0
34		1530	0
35		1630	0
36		1725	0
	0		0

SPECIES DIAMETER	BO/RO # OF TREES	4.5 LOGS	
		VOLUME	TOTAL VOL.
12			0
13			0
14			0
15			0
16		326	0
17		378	0
18		440	0
19		500	0
20		570	0
21		635	0
22		715	0
23		800	0
24		870	0
25		950	0
26		1020	0
27		1100	0
28		1190	0
29		1280	0
30		1360	0
31		1450	0
32		1550	0
33		1650	0
34		1760	0
35		1880	0
36		2000	0
	0		0

BO/RO	# of Trees	Total Vol.	Avg. Vol.
	4	1234	308.5

detweiler  
unit 3

SPECIES		JH		1 LOG		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	2	57	114	12		80	0
13		68	0	13		96	0
14	3	79	237	14	1	110	110
15	2	92	184	15	1	128	128
16	1	105	105	16		147	0
17	1	118	118	17		166	0
18		135	0	18	1	188	188
19		152	0	19		212	0
20		170	0	20		236	0
21	1	189	189	21		262	0
22		209	0	22		290	0
23		228	0	23		316	0
24		252	0	24		346	0
25		275	0	25		376	0
26	1	300	300	26		410	0
27		325	0	27		440	0
28		348	0	28		480	0
29		378	0	29		515	0
30		410	0	30		550	0
31		440	0	31		595	0
32		470	0	32		635	0
33		500	0	33		680	0
34		530	0	34		725	0
35		565	0	35		770	0
36		600	0	36		820	0
	11		1247		3		426

SPECIES		JH		1 LOG		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	2	57	114	12		80	0
13		68	0	13		96	0
14	3	79	237	14	1	110	110
15	2	92	184	15	1	128	128
16	1	105	105	16		147	0
17	1	118	118	17		166	0
18		135	0	18	1	188	188
19		152	0	19		212	0
20		170	0	20		236	0
21	1	189	189	21		262	0
22		209	0	22		290	0
23		228	0	23		316	0
24		252	0	24		346	0
25		275	0	25		376	0
26	1	300	300	26		410	0
27		325	0	27		440	0
28		348	0	28		480	0
29		378	0	29		515	0
30		410	0	30		550	0
31		440	0	31		595	0
32		470	0	32		635	0
33		500	0	33		680	0
34		530	0	34		725	0
35		565	0	35		770	0
36		600	0	36		820	0
	11		1247		3		426

SPECIES		OH		2 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		100	0				
13		118	0				
14		140	0				
15		160	0				
16		180	0				
17		208	0				
18		235	0				
19		265	0				
20	2	295	590				
21		328	0				
22		362	0				
23		396	0				
24		430	0				
25		470	0				
26		510	0				
27		550	0				
28		595	0				
29		640	0				
30		685	0				
31		740	0				
32		790	0				
33		840	0				
34		900	0				
35		950	0				
36		1010	0				
	2		590				

SPECIES		OH		2.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		114	0				
13		134	0				
14		163	0				
15		188	0				
16		213	0				
17		245	0				
18		278	0				
19		314	0				
20		350	0				
21		390	0				
22		430	0				
23		470	0				
24		510	0				
25		555	0				
26		605	0				
27		650	0				
28		700	0				
29		760	0				
30		810	0				
31		870	0				
32		930	0				
33		990	0				
34		1060	0				
35		1120	0				
36		1190	0				
	0		0				

SPECIES		OH		3 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
12		124	0				
13		149	0				
14		184	0				
15		214	0				
16		247	0				
17		281	0				
18		320	0				
19		360	0				
20		400	0				
21		450	0				
22		495	0				
23		540	0				
24		595	0				
25		645	0				
26		700	0				
27		760	0				
28		810	0				
29		870	0				
30		930	0				
31		1000	0				
32		1070	0				
33		1140	0				
34		1210	0				
35		1290	0				
36		1370	0				
				0			

SPECIES		OH		3.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		130	0				
13		161	0				
14		194	0				
15		232	0				
16		274	0				
17		314	0				
18		360	0				
19		405	0				
20		450	0				
21		505	0				
22		555	0				
23		610	0				
24		670	0				
25		730	0				
26		790	0				
27		850	0				
28		920	0				
29		990	0				
30		1060	0				
31		1140	0				
32		1210	0				
33		1290	0				
34		1380	0				
35		1460	0				
36		1550	0				
				0			

SPECIES		OH		4 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
12			0				0
13		171	0				0
14		205	0				0
15		250	0				0
16		295	0				0
17		340	0				0
18		400	0				0
19		450	0				0
20		500	0				0
21		550	0				0
22		610	0				0
23		680	0				0
24		740	0				0
25		810	0				0
26		880	0				0
27		950	0				0
28		1020	0				0
29		1100	0				0
30		1180	0				0
31		1260	0				0
32		1350	0				0
33		1440	0				0
34		1530	0				0
35		1630	0				0
36		1725	0				0
				0			

SPECIES		OH		4.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12			0				0
13			0				0
14			0				0
15			0				0
16		326	0				0
17		378	0				0
18		440	0				0
19		500	0				0
20		570	0				0
21		635	0				0
22		715	0				0
23		800	0				0
24		870	0				0
25		950	0				0
26		1020	0				0
27		1100	0				0
28		1190	0				0
29		1280	0				0
30		1360	0				0
31		1450	0				0
32		1550	0				0
33		1650	0				0
34		1760	0				0
35		1880	0				0
36		2000	0				0
				0			

OH	# of Trees	Total Vol.	Avg. Vol.
	16	2263	141.4375





detweiler  
unit 4

SPECIES		1 LOG	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	11	57	627
13	3	68	204
14		79	0
15		92	0
16		105	0
17		118	0
18		135	0
19		152	0
20		170	0
21		189	0
22		209	0
23		228	0
24		252	0
25		275	0
26		300	0
27		325	0
28		348	0
29		378	0
30		410	0
31		440	0
32		470	0
33		500	0
34		530	0
35		565	0
36		600	0
	14		831

SPECIES		WP		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12	8	80	640		
13	7	96	672		
14	1	110	110		
15	4	128	512		
16	1	147	147		
17		166	0		
18		188	0		
19		212	0		
20		236	0		
21		262	0		
22		290	0		
23		316	0		
24		346	0		
25		376	0		
26		410	0		
27		440	0		
28		480	0		
29		515	0		
30		550	0		
31		595	0		
32		635	0		
33		680	0		
34		725	0		
35		770	0		
36		820	0		
	21		2081		

SPECIES		WP	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13	10		118	1180
14	8		140	1120
15	5		160	800
16	10		180	1800
17	1		208	208
18			235	0
19			265	0
20	1		295	295
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
		35		5403

SPECIES		WP	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12	1		114	114
13			134	0
14	3		163	489
15			188	0
16	5		213	1065
17	6		245	1470
18	6		278	1668
19	1		314	314
20	1		350	350
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
		23		5470

SPECIES		WP	3 LOGS	
DIAMETER	# OF TREES	WP	VOLUME	TOTAL VOL
12			124	0
13			149	0
14			184	0
15			214	0
16			247	0
17	1		281	281
18			320	0
19	2		360	720
20			400	0
21	1		450	450
22			495	0
23			540	0
24			595	0
25			645	0
26			700	0
27			760	0
28			810	0
29			870	0
30			930	0
31			1000	0
32			1070	0
33			1140	0
34			1210	0
35			1290	0
36			1370	0
	4			1451

SPECIES		WP	3.5 LOGS	
DIAMETER	# OF TREES	WP	VOLUME	TOTAL VOL.
12			130	0
13			161	0
14			194	0
15			232	0
16			274	0
17			314	0
18			360	0
19			405	0
20			450	0
21			505	0
22			555	0
23			610	0
24			670	0
25			730	0
26			790	0
27			850	0
28			920	0
29			990	0
30			1060	0
31			1140	0
32			1210	0
33			1290	0
34			1380	0
35			1460	0
36			1550	0
	0			0

SPECIES	DIAMETER	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES	DIAMETER	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

WP	# of Trees	Total Vol.	Avg. Vol.
	97	15236	157.0722

detweiler  
unit 4

SPECIES		NS		1 LOG			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	7	57	399				
13	1	68	68				
14	3	79	237				
15	1	92	92				
16		105	0				
17		118	0				
18		135	0				
19		152	0				
20		170	0				
21		189	0				
22		209	0				
23		228	0				
24		252	0				
25		275	0				
26		300	0				
27		325	0				
28		348	0				
29		378	0				
30		410	0				
31		440	0				
32		470	0				
33		500	0				
34		530	0				
35		565	0				
36		600	0				
	12		796				

SPECIES		NS		1.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	1	80	80				
13	2	96	192				
14	8	110	880				
15	2	128	256				
16	1	147	147				
17	3	166	498				
18	2	188	376				
19		212	0				
20		236	0				
21		262	0				
22		290	0				
23		316	0				
24		346	0				
25		376	0				
26		410	0				
27		440	0				
28		480	0				
29		515	0				
30		550	0				
31		595	0				
32		635	0				
33		680	0				
34		725	0				
35		770	0				
36		820	0				
	19		2429				

SPECIES		NS	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15	3		160	480
16	2		180	360
17	4		208	832
18			235	0
19			265	0
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	9			1672

SPECIES		NS	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14	1		163	163
15	1		188	188
16			213	0
17	2		245	490
18			278	0
19			314	0
20	1		350	350
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	5			1191

SPECIES	DIAMETER	3 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
NS	12		124	0
	13		149	0
	14		184	0
	15		214	0
	16		247	0
	17		281	0
	18		320	0
	19		360	0
	20		400	0
	21		450	0
	22		495	0
	23		540	0
	24		595	0
	25		645	0
	26		700	0
	27		760	0
	28		810	0
	29		870	0
	30		930	0
	31		1000	0
	32		1070	0
	33		1140	0
	34		1210	0
	35		1290	0
	36		1370	0
		0		0

SPECIES	DIAMETER	3.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
NS	12		130	0
	13		161	0
	14		194	0
	15		232	0
	16		274	0
	17		314	0
	18		360	0
	19		405	0
	20		450	0
	21		505	0
	22		555	0
	23		610	0
	24		670	0
	25		730	0
	26		790	0
	27		850	0
	28		920	0
	29		990	0
	30		1060	0
	31		1140	0
	32		1210	0
	33		1290	0
	34		1380	0
	35		1460	0
	36		1550	0
		0		0

SPECIES		NS		4 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
12			0				0
13		171	0				0
14		205	0				0
15		250	0				0
16		295	0				0
17		340	0				0
18		400	0				0
19		450	0				0
20		500	0				0
21		550	0				0
22		610	0				0
23		680	0				0
24		740	0				0
25		810	0				0
26		880	0				0
27		950	0				0
28		1020	0				0
29		1100	0				0
30		1180	0				0
31		1260	0				0
32		1350	0				0
33		1440	0				0
34		1530	0				0
35		1630	0				0
36		1725	0				0
	0						

SPECIES		NS		4.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12			0				0
13			0				0
14			0				0
15			0				0
16		326	0				0
17		378	0				0
18		440	0				0
19		500	0				0
20		570	0				0
21		635	0				0
22		715	0				0
23		800	0				0
24		870	0				0
25		950	0				0
26		1020	0				0
27		1100	0				0
28		1190	0				0
29		1280	0				0
30		1360	0				0
31		1450	0				0
32		1550	0				0
33		1650	0				0
34		1760	0				0
35		1880	0				0
36		2000	0				0
	0						

NS	# of Trees	Total Vol.	Avg. Vol.
	45	6088	135.2889



SPECIES	TP	1 LOG		
		# OF TREES	VOLUME	TOTAL VOL.
12			57	0
13			68	0
14			79	0
15			92	0
16			105	0
17			118	0
18			135	0
19			152	0
20			170	0
21			189	0
22			209	0
23			228	0
24			252	0
25			275	0
26			300	0
27			325	0
28			348	0
29			378	0
30			410	0
31			440	0
32			470	0
33			500	0
34			530	0
35			565	0
36			600	0
		0		0

SPECIES	TP	1.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12		3	80	240
13			96	0
14			110	0
15			128	0
16			147	0
17			166	0
18			188	0
19			212	0
20			236	0
21			262	0
22			290	0
23			316	0
24			346	0
25			376	0
26			410	0
27			440	0
28			480	0
29			515	0
30			550	0
31			595	0
32			635	0
33			680	0
34			725	0
35			770	0
36			820	0
		3		240

SPECIES		TP	2 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	
12		100	0	
13	3	118	354	
14	2	140	280	
15		160	0	
16	1	180	180	
17		208	0	
18		235	0	
19		265	0	
20		295	0	
21		328	0	
22		362	0	
23		396	0	
24		430	0	
25		470	0	
26		510	0	
27		550	0	
28		595	0	
29		640	0	
30		685	0	
31		740	0	
32		790	0	
33		840	0	
34		900	0	
35		950	0	
36		1010	0	
	6			814

SPECIES		TP	2.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	
12		114	0	
13		134	0	
14		163	0	
15		188	0	
16		213	0	
17		245	0	
18		278	0	
19		314	0	
20		350	0	
21		390	0	
22		430	0	
23		470	0	
24		510	0	
25		555	0	
26		605	0	
27		650	0	
28		700	0	
29		760	0	
30		810	0	
31		870	0	
32		930	0	
33		990	0	
34		1060	0	
35		1120	0	
36		1190	0	
	0			

SPECIES	TP	3 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
12			124	0
13			149	0
14			184	0
15			214	0
16			247	0
17			281	0
18			320	0
19			360	0
20			400	0
21			450	0
22			495	0
23			540	0
24			595	0
25			645	0
26			700	0
27			760	0
28			810	0
29			870	0
30			930	0
31			1000	0
32			1070	0
33			1140	0
34			1210	0
35			1290	0
36			1370	0
		0		0

SPECIES	TP	3.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12			130	0
13			161	0
14			194	0
15			232	0
16			274	0
17			314	0
18			360	0
19			405	0
20			450	0
21			505	0
22			555	0
23			610	0
24			670	0
25			730	0
26			790	0
27			850	0
28			920	0
29			990	0
30			1060	0
31			1140	0
32			1210	0
33			1290	0
34			1380	0
35			1460	0
36			1550	0
		0		0

SPECIES		TP	4 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES		TP	4.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	9	1054	117.1111

Stand 1	Plot	Saw timber	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Dia	Tot	Pulp 5'	Total Bolts	Tons/ Acre .9	Total trees at each point	Total basal area at each point				
			TP		LAR		CO		RM		WO		BB		AM		OH									Bolt count									
	1	13			10,10	2																				5,5	10	9	15	150					
	2	11	11	1	10	1											6	1							5,4,2	11	10	14	140						
	3	14			10,10,10	3																			6,6,6	18	17	17	170						
	4	10	10	1																					5	5	4	11	110						
	5	10			11,10,11,8,10,10	6																			6,6,6,5,6,6	35	32	16	160						
	6																																		
	7																																		
	8																																		
	9																																		
	10																																		
	11																																		
	12																																		
	13																																		
	14																																		
	15																																		
	16																																		
	17																																		
	18																																		
	19																																		
	20																																		
	21																																		
	22																																		
	23																																		
	24																																		
	25																																		
	26																																		
	27																																		
	28																																		
	29																																		
	30																																		
		58	0	2		12																													
<b>Subtotal</b>			<u>average BA</u>		150																														
9 total dead standing culls																																			

detweiler  
unit 5

SPECIES		LA		1 LOG			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	2	57	114				
13	1	68	68				
14		79	0				
15		92	0				
16		105	0				
17		118	0				
18		135	0				
19		152	0				
20		170	0				
21		189	0				
22		209	0				
23		228	0				
24		252	0				
25		275	0				
26		300	0				
27		325	0				
28		348	0				
29		378	0				
30		410	0				
31		440	0				
32		470	0				
33		500	0				
34		530	0				
35		565	0				
36		600	0				
	3		182				

SPECIES		LA		1.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	2	80	160				
13	2	96	192				
14		110	0				
15	1	128	128				
16		147	0				
17		166	0				
18		188	0				
19		212	0				
20		236	0				
21		262	0				
22		290	0				
23		316	0				
24		346	0				
25		376	0				
26		410	0				
27		440	0				
28		480	0				
29		515	0				
30		550	0				
31		595	0				
32		635	0				
33		680	0				
34		725	0				
35		770	0				
36		820	0				
	5		480				

SPECIES		LA		2 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		100	0		
13	6	118	708		
14	6	140	840		
15	4	160	640		
16	2	180	360		
17		208	0		
18	1	235	235		
19		265	0		
20		295	0		
21		328	0		
22		362	0		
23		396	0		
24		430	0		
25		470	0		
26		510	0		
27		550	0		
28		595	0		
29		640	0		
30		685	0		
31		740	0		
32		790	0		
33		840	0		
34		900	0		
35		950	0		
36		1010	0		
	19				2783

SPECIES		LA		2.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		114	0		
13		134	0		
14	2	163	326		
15		188	0		
16	2	213	426		
17	1	245	245		
18		278	0		
19		314	0		
20		350	0		
21		390	0		
22		430	0		
23		470	0		
24		510	0		
25		555	0		
26		605	0		
27		650	0		
28		700	0		
29		760	0		
30		810	0		
31		870	0		
32		930	0		
33		990	0		
34		1060	0		
35		1120	0		
36		1190	0		
	5				997

SPECIES		LA		3 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
12		124	0				
13		149	0				
14		184	0				
15		214	0				
16		247	0				
17		281	0				
18		320	0				
19		360	0				
20		400	0				
21		450	0				
22		495	0				
23		540	0				
24		595	0				
25		645	0				
26		700	0				
27		760	0				
28		810	0				
29		870	0				
30		930	0				
31		1000	0				
32		1070	0				
33		1140	0				
34		1210	0				
35		1290	0				
36		1370	0				
	0						

SPECIES		LA		3.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		130	0				
13		161	0				
14		194	0				
15		232	0				
16		274	0				
17		314	0				
18		360	0				
19		405	0				
20		450	0				
21		505	0				
22		555	0				
23		610	0				
24		670	0				
25		730	0				
26		790	0				
27		850	0				
28		920	0				
29		990	0				
30		1060	0				
31		1140	0				
32		1210	0				
33		1290	0				
34		1380	0				
35		1460	0				
36		1550	0				
	0						



SPECIES	DIAMETER	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
	12			0
	13		171	0
	14		205	0
	15		250	0
	16		295	0
	17		340	0
	18		400	0
	19		450	0
	20		500	0
	21		550	0
	22		610	0
	23		680	0
	24		740	0
	25		810	0
	26		880	0
	27		950	0
	28		1020	0
	29		1100	0
	30		1180	0
	31		1260	0
	32		1350	0
	33		1440	0
	34		1530	0
	35		1630	0
	36		1725	0
		0		0

SPECIES	DIAMETER	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
	12			0
	13			0
	14			0
	15			0
	16		326	0
	17		378	0
	18		440	0
	19		500	0
	20		570	0
	21		635	0
	22		715	0
	23		800	0
	24		870	0
	25		950	0
	26		1020	0
	27		1100	0
	28		1190	0
	29		1280	0
	30		1360	0
	31		1450	0
	32		1550	0
	33		1650	0
	34		1760	0
	35		1880	0
	36		2000	0
		0		0

LA	# of Trees	Total Vol.	Avg. Vol.
	32	4442	138.8125

SPECIES		TP		1 LOG			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12	2	57	114				
13		68	0				
14		79	0				
15		92	0				
16		105	0				
17	2	118	236				
18		135	0				
19		152	0				
20		170	0				
21		189	0				
22		209	0				
23		228	0				
24		252	0				
25		275	0				
26		300	0				
27		325	0				
28		348	0				
29		378	0				
30		410	0				
31		440	0				
32		470	0				
33		500	0				
34		530	0				
35		565	0				
36		600	0				
	4		350				

SPECIES		TP		1.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		80	0				
13	2	96	192				
14		110	0				
15	2	128	256				
16	2	147	294				
17	1	166	166				
18		188	0				
19		212	0				
20		236	0				
21		262	0				
22		290	0				
23		316	0				
24		346	0				
25		376	0				
26		410	0				
27		440	0				
28		480	0				
29		515	0				
30		550	0				
31		595	0				
32		635	0				
33		680	0				
34		725	0				
35		770	0				
36		820	0				
	7		908				

SPECIES		TP	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15			160	0
16			180	0
17	4		208	832
18	3		235	705
19			265	0
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	7			1537

SPECIES		TP	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14	1		163	163
15			188	0
16	1		213	213
17	1		245	245
18	1		278	278
19	2		314	628
20	1		350	350
21	1		390	390
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	8			2267

SPECIES		TP	3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	
12		124	0	
13		149	0	
14		184	0	
15		214	0	
16		247	0	
17		281	0	
18		320	0	
19		360	0	
20		400	0	
21		450	0	
22		495	0	
23		540	0	
24		595	0	
25		645	0	
26		700	0	
27		760	0	
28		810	0	
29		870	0	
30		930	0	
31		1000	0	
32		1070	0	
33		1140	0	
34		1210	0	
35		1290	0	
36		1370	0	
	0			

SPECIES		TP	3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	
12		130	0	
13		161	0	
14		194	0	
15		232	0	
16		274	0	
17		314	0	
18		360	0	
19		405	0	
20		450	0	
21		505	0	
22		555	0	
23		610	0	
24		670	0	
25		730	0	
26		790	0	
27		850	0	
28		920	0	
29		990	0	
30		1060	0	
31		1140	0	
32		1210	0	
33		1290	0	
34		1380	0	
35		1460	0	
36		1550	0	
	0			

SPECIES	TP	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES	TP	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	26	5062	194.6923

Stand 1	Plot	Saw timber	Dia TP	Tot	Dia BO/RO	Tot	Dia	Tot	CO	Dia	Tot	RM	Dia	Tot	WP	Dia	Tot	BB	Dia	Tot	AB	Dia	Tot	OH	Dia	Tot	Tot	Pulp 5'	Bolt count	Total Pulp Bolts	Tons/Acre .9	Total trees at each point	Total basal area at each point		
	1	2				10	1					10	1													11	5,2,2,6,4,5,5,6,4,4,5	48	44	14	140				
	2	13		10	1	4,6	2																			3	3,2,2,5,3,5	20	18	180					
	3	12											10	1												2	5,2,5	12	11	150					
	4	13								8	1										11	1				6	3,2,5	10	9	180					
	5																																		
	6																																		
	7																																		
	8																																		
	9																																		
	10																																		
	11																																		
	12																																		
	13																																		
	14																																		
	15																																		
	16																																		
	17																																		
	18																																		
	19																																		
	20																																		
	21																																		
	22																																		
	23																																		
	24																																		
	25																																		
	26																																		
	27																																		
	28																																		
	29																																		
	30																																		
		40	0																							1								160	
Subtotal			average BA																																
	11 total dead standing																																		

detweiler  
unit6

SPECIES		BO/RO		1 LOG	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12	3	57	171		
13	1	68	68		
14		79	0		
15	1	92	92		
16		105	0		
17		118	0		
18	1	135	135		
19		152	0		
20		170	0		
21		189	0		
22		209	0		
23		228	0		
24		252	0		
25		275	0		
26		300	0		
27		325	0		
28		348	0		
29		378	0		
30		410	0		
31		440	0		
32		470	0		
33		500	0		
34		530	0		
35		565	0		
36		600	0		
	6		466		

SPECIES		BO/RO		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		80	0		
13		96	0		
14	1	110	110		
15	1	128	128		
16	1	147	147		
17	1	166	166		
18	3	188	564		
19		212	0		
20	1	236	236		
21	1	262	262		
22		290	0		
23	1	316	316		
24		346	0		
25		376	0		
26		410	0		
27		440	0		
28		480	0		
29		515	0		
30		550	0		
31		595	0		
32		635	0		
33		680	0		
34		725	0		
35		770	0		
36		820	0		
	10		1929		

SPECIES		BO/RO		2 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		100	0		
13		118	0		
14		140	0		
15		160	0		
16	2	180	360		
17	2	208	416		
18	2	235	470		
19	3	265	795		
20	1	295	295		
21	1	328	328		
22	1	362	362		
23	1	396	396		
24	2	430	860		
25		470	0		
26		510	0		
27		550	0		
28	1	595	595		
29		640	0		
30		685	0		
31		740	0		
32		790	0		
33		840	0		
34		900	0		
35		950	0		
36		1010	0		
	16				4877

SPECIES		BO/RO		2.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		114	0		
13		134	0		
14		163	0		
15		188	0		
16		213	0		
17		245	0		
18		278	0		
19	1	314	314		
20		350	0		
21	1	390	390		
22		430	0		
23		470	0		
24	1	510	510		
25		555	0		
26		605	0		
27		650	0		
28		700	0		
29		760	0		
30		810	0		
31		870	0		
32		930	0		
33		990	0		
34		1060	0		
35		1120	0		
36		1190	0		
	3				1214



SPECIES		BO/RO	3 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12			124	0
13			149	0
14			184	0
15			214	0
16			247	0
17			281	0
18			320	0
19			360	0
20			400	0
21			450	0
22			495	0
23			540	0
24			595	0
25			645	0
26			700	0
27			760	0
28			810	0
29			870	0
30			930	0
31			1000	0
32			1070	0
33			1140	0
34			1210	0
35			1290	0
36			1370	0
		0		0

SPECIES		BO/RO	3.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			130	0
13			161	0
14			194	0
15			232	0
16			274	0
17			314	0
18			360	0
19			405	0
20			450	0
21			505	0
22			555	0
23			610	0
24			670	0
25			730	0
26			790	0
27			850	0
28			920	0
29			990	0
30			1060	0
31			1140	0
32			1210	0
33			1290	0
34			1380	0
35			1460	0
36			1550	0
		0		0

SPECIES		BO/RO		4 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12			0		
13		171	0		
14		205	0		
15		250	0		
16		295	0		
17		340	0		
18		400	0		
19		450	0		
20		500	0		
21		550	0		
22		610	0		
23		680	0		
24		740	0		
25		810	0		
26		880	0		
27		950	0		
28		1020	0		
29		1100	0		
30		1180	0		
31		1260	0		
32		1350	0		
33		1440	0		
34		1530	0		
35		1630	0		
36		1725	0		
	0				

SPECIES		BO/RO		4.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12			0		
13			0		
14			0		
15			0		
16		326	0		
17		378	0		
18		440	0		
19		500	0		
20		570	0		
21		635	0		
22		715	0		
23		800	0		
24		870	0		
25		950	0		
26		1020	0		
27		1100	0		
28		1190	0		
29		1280	0		
30		1360	0		
31		1450	0		
32		1550	0		
33		1650	0		
34		1760	0		
35		1880	0		
36		2000	0		
	0				

BO/RO	# of Trees	Total Vol.	Avg. Vol.
	35	8486	242.4571

SPECIES		OH		1 LOG		SPECIES		OH		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
12		57	0		12		80	0			
13		68	0		13		96	0			
14		79	0	detweiler	14		110	0			
15	1	92	92	unit6	15	1	128	128			
16		105	0		16		147	0			
17		118	0		17		166	0			
18		135	0		18		188	0			
19		152	0		19		212	0			
20		170	0		20		236	0			
21		189	0		21		262	0			
22		209	0		22		290	0			
23		228	0		23		316	0			
24		252	0		24		346	0			
25		275	0		25		376	0			
26		300	0		26		410	0			
27		325	0		27		440	0			
28		348	0		28		480	0			
29		378	0		29		515	0			
30		410	0		30		550	0			
31		440	0		31		595	0			
32		470	0		32		635	0			
33		500	0		33		680	0			
34		530	0		34		725	0			
35		565	0		35		770	0			
36		600	0		36		820	0			
	1		92			1		128			

SPECIES		OH		2 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		100	0				
13		118	0				
14		140	0				
15		160	0				
16		180	0				
17		208	0				
18		235	0				
19		265	0				
20		295	0				
21	1	328	328				
22		362	0				
23		396	0				
24	1	430	430				
25		470	0				
26		510	0				
27		550	0				
28		595	0				
29		640	0				
30		685	0				
31		740	0				
32		790	0				
33		840	0				
34		900	0				
35		950	0				
36		1010	0				
	2		758				

SPECIES		OH		2.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		114	0				
13		134	0				
14		163	0				
15		188	0				
16		213	0				
17		245	0				
18		278	0				
19		314	0				
20		350	0				
21		390	0				
22		430	0				
23	1	470	470				
24		510	0				
25		555	0				
26		605	0				
27		650	0				
28		700	0				
29		760	0				
30		810	0				
31		870	0				
32		930	0				
33		990	0				
34		1060	0				
35		1120	0				
36		1190	0				
	1		470				

SPECIES	TP			3 LOGS		
	DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12			124	0		
13			149	0		
14			184	0		
15			214	0		
16			247	0		
17			281	0		
18			320	0		
19			360	0		
20			400	0		
21			450	0		
22			495	0		
23			540	0		
24			595	0		
25			645	0		
26			700	0		
27			760	0		
28			810	0		
29			870	0		
30			930	0		
31			1000	0		
32			1070	0		
33			1140	0		
34			1210	0		
35			1290	0		
36			1370	0		
		0				

SPECIES	OH			3.5 LOGS		
	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12			130	0		
13			161	0		
14			194	0		
15			232	0		
16			274	0		
17			314	0		
18			360	0		
19			405	0		
20			450	0		
21			505	0		
22			555	0		
23			610	0		
24			670	0		
25			730	0		
26			790	0		
27			850	0		
28			920	0		
29			990	0		
30			1060	0		
31			1140	0		
32			1210	0		
33			1290	0		
34			1380	0		
35			1460	0		
36			1550	0		
		0				

SPECIES		OH		4 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES
12			0		
13		171	0		
14		205	0		
15		250	0		
16		295	0		
17		340	0		
18		400	0		
19		450	0		
20		500	0		
21		550	0		
22		610	0		
23		680	0		
24		740	0		
25		810	0		
26		880	0		
27		950	0		
28		1020	0		
29		1100	0		
30		1180	0		
31		1260	0		
32		1350	0		
33		1440	0		
34		1530	0		
35		1630	0		
36		1725	0		
	0				

SPECIES		OH		4.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES
12			0		
13			0		
14			0		
15			0		
16		326	0		
17		378	0		
18		440	0		
19		500	0		
20		570	0		
21		635	0		
22		715	0		
23		800	0		
24		870	0		
25		950	0		
26		1020	0		
27		1100	0		
28		1190	0		
29		1280	0		
30		1360	0		
31		1450	0		
32		1550	0		
33		1650	0		
34		1760	0		
35		1880	0		
36		2000	0		
	0				

OH	# of Trees	Total Vol.	Avg. Vol.
	5	1448	289.6

Stand 1	Plot	Saw timber	Dia	Tot	Dia BO/RO	Tot Dia	Dia CO	Tot Dia RM	Dia WO	Tot Dia BB	Dia AM	Tot Dia OH	Pulp 5'	Total Pulp Bolts	Tons/Acre .9	Total trees at each point	Total basal area at each point
	1	3	10,10,9,10	4		5	1					5	1	21	19	9	90
	2	5	10,6,10,10,5	5								10,9	2	27	24	12	120
7	3	5	10,11	2						8	1		3,6,3	12	11	8	80
	4	4	11,11	2	10	1							5,6,6	17	16	7	70
	5																
	6																
	7																
	8																
	9																
	10																
	11																
	12																
	13																
	14																
	15																
	16																
	17																
	18																
	19																
	20																
	21																
	22																
	23																
	24																
	25																
	26																
	27																
	28																
	29																
	30																
		17	0														90
<b>Subtotal</b>			<u>average BA</u>		90												
	7 total dead standing culis																

SPECIES	1 LOG			TOTAL VOL.
	DIAMETER	# OF TREES	VOLUME	
12	7	57	399	
13	1	68	68	
14	1	79	79	
15		92	0	
16		105	0	
17		118	0	
18		135	0	
19		152	0	
20		170	0	
21		189	0	
22		209	0	
23		228	0	
24		252	0	
25		275	0	
26		300	0	
27		325	0	
28		348	0	
29		378	0	
30		410	0	
31		440	0	
32		470	0	
33		500	0	
34		530	0	
35		565	0	
36		600	0	
	9		546	

SPECIES	1.5 LOGS			TOTAL VOL.
	DIAMETER	# OF TREES	VOLUME	
12	2	80	160	
13	3	96	288	
14	1	110	110	
15	2	128	256	
16		147	0	
17		166	0	
18		188	0	
19		212	0	
20		236	0	
21		262	0	
22		290	0	
23		316	0	
24		346	0	
25		376	0	
26		410	0	
27		440	0	
28		480	0	
29		515	0	
30		550	0	
31		595	0	
32		635	0	
33		680	0	
34		725	0	
35		770	0	
36		820	0	
	8		814	



SPECIES		TP	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15			160	0
16			180	0
17			208	0
18			235	0
19			265	0
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
		0		0

SPECIES		TP	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16			213	0
17			245	0
18			278	0
19			314	0
20			350	0
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
		0		0

SPECIES		TP	3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	
12		124	0	
13		149	0	
14		184	0	
15		214	0	
16		247	0	
17		281	0	
18		320	0	
19		360	0	
20		400	0	
21		450	0	
22		495	0	
23		540	0	
24		595	0	
25		645	0	
26		700	0	
27		760	0	
28		810	0	
29		870	0	
30		930	0	
31		1000	0	
32		1070	0	
33		1140	0	
34		1210	0	
35		1290	0	
36		1370	0	
	0			

SPECIES		TP	3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	
12		130	0	
13		161	0	
14		194	0	
15		232	0	
16		274	0	
17		314	0	
18		360	0	
19		405	0	
20		450	0	
21		505	0	
22		555	0	
23		610	0	
24		670	0	
25		730	0	
26		790	0	
27		850	0	
28		920	0	
29		990	0	
30		1060	0	
31		1140	0	
32		1210	0	
33		1290	0	
34		1380	0	
35		1460	0	
36		1550	0	
	0			

SPECIES	TP	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES	TP	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	17	1360	80



SPECIES		1 LOG			SPECIES			1.5 LOGS		
DIAMETER	TP	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	TP	# OF TREES	VOLUME	TOTAL VOL.
12		2	57	114		12		1	80	80
13			68	0		13		2	96	192
14			79	0	detweiler	14			110	0
15			92	0	unit8	15			128	0
16			105	0		16		2	147	294
17			118	0		17		2	166	332
18			135	0		18		1	188	188
19			152	0		19			212	0
20			170	0		20		1	236	236
21			189	0		21			262	0
22			209	0		22			290	0
23			228	0		23			316	0
24			252	0		24			346	0
25			275	0		25			376	0
26			300	0		26			410	0
27			325	0		27			440	0
28			348	0		28			480	0
29			378	0		29			515	0
30			410	0		30			550	0
31			440	0		31			595	0
32			470	0		32			635	0
33			500	0		33			680	0
34			530	0		34			725	0
35			565	0		35			770	0
36			600	0		36			820	0
		2		114				9		1322

SPECIES		TP	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14	2		140	280
15	2		160	320
16	4		180	720
17	2		208	416
18	6		235	1410
19			265	0
20	1		295	295
21			328	0
22	1		362	362
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	18			3803

SPECIES		TP	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14	2		163	326
15			188	0
16	5		213	1065
17	4		245	980
18	11		278	3058
19	3		314	942
20	5		350	1750
21	1		390	390
22	4		430	1720
23	1		470	470
24	1		510	510
25	1		555	555
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	38			11766

SPECIES	DIAMETER	3 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
	12		124	0
	13		149	0
	14		184	0
	15		214	0
	16	1	247	247
	17	5	281	1405
	18	7	320	2240
	19	6	360	2160
	20	15	400	6000
	21	7	450	3150
	22	1	495	495
	23	8	540	4320
	24	1	595	595
	25		645	0
	26		700	0
	27		760	0
	28	1	810	810
	29		870	0
	30		930	0
	31		1000	0
	32		1070	0
	33		1140	0
	34		1210	0
	35		1290	0
	36		1370	0
		52		21422

SPECIES	DIAMETER	3.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
	12		130	0
	13		161	0
	14		194	0
	15		232	0
	16	1	274	274
	17		314	0
	18	2	360	720
	19		405	0
	20	1	450	450
	21	1	505	505
	22		555	0
	23	2	610	1220
	24		670	0
	25		730	0
	26		790	0
	27		850	0
	28		920	0
	29		990	0
	30		1060	0
	31		1140	0
	32		1210	0
	33		1290	0
	34		1380	0
	35		1460	0
	36		1550	0
		7		3169

SPECIES		TP	4 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES		TP	4.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	126	41596	330.127



detweiler  
unit8

SPECIES		BO/RO		1 LOG	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12	6	57	342		
13	1	68	68		
14		79	0		
15		92	0		
16		105	0		
17		118	0		
18		135	0		
19		152	0		
20		170	0		
21		189	0		
22		209	0		
23		228	0		
24		252	0		
25		275	0		
26		300	0		
27		325	0		
28		348	0		
29		378	0		
30		410	0		
31		440	0		
32		470	0		
33		500	0		
34		530	0		
35		565	0		
36		600	0		
	7		410		

SPECIES		BO/RO		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12	1	80	80		
13	2	96	192		
14	2	110	220		
15	2	128	256		
16	1	147	147		
17		166	0		
18		188	0		
19		212	0		
20		236	0		
21		262	0		
22		290	0		
23		316	0		
24		346	0		
25		376	0		
26		410	0		
27		440	0		
28		480	0		
29		515	0		
30		550	0		
31		595	0		
32		635	0		
33		680	0		
34		725	0		
35		770	0		
36		820	0		
	8		895		

SPECIES		BO/RO	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15	2		160	320
16	2		180	360
17	7		208	1456
18	1		235	235
19	2		265	530
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
		14		2901

SPECIES		BO/RO	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15	2		188	376
16			213	0
17	2		245	490
18	3		278	834
19	2		314	628
20			350	0
21	1		390	390
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
		10		2718

SPECIES		BO/RO		3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12		124	0		
13		149	0		
14		184	0		
15		214	0		
16		247	0		
17		281	0		
18		320	0		
19		360	0		
20		400	0		
21		450	0		
22		495	0		
23		540	0		
24		595	0		
25		645	0		
26		700	0		
27		760	0		
28		810	0		
29		870	0		
30		930	0		
31		1000	0		
32		1070	0		
33		1140	0		
34		1210	0		
35		1290	0		
36		1370	0		
	0				

SPECIES		BO/RO		3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		130	0		
13		161	0		
14		194	0		
15		232	0		
16		274	0		
17		314	0		
18		360	0		
19		405	0		
20		450	0		
21		505	0		
22		555	0		
23		610	0		
24		670	0		
25		730	0		
26		790	0		
27		850	0		
28		920	0		
29		990	0		
30		1060	0		
31		1140	0		
32		1210	0		
33		1290	0		
34		1380	0		
35		1460	0		
36		1550	0		
	0				

SPECIES		BO/RO		4 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12			0		
13		171	0		
14		205	0		
15		250	0		
16		295	0		
17		340	0		
18		400	0		
19		450	0		
20		500	0		
21		550	0		
22		610	0		
23		680	0		
24		740	0		
25		810	0		
26		880	0		
27		950	0		
28		1020	0		
29		1100	0		
30		1180	0		
31		1260	0		
32		1350	0		
33		1440	0		
34		1530	0		
35		1630	0		
36		1725	0		
	0				

SPECIES		BO/RO		4.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12			0		
13			0		
14			0		
15			0		
16		326	0		
17		378	0		
18		440	0		
19		500	0		
20		570	0		
21		635	0		
22		715	0		
23		800	0		
24		870	0		
25		950	0		
26		1020	0		
27		1100	0		
28		1190	0		
29		1280	0		
30		1360	0		
31		1450	0		
32		1550	0		
33		1650	0		
34		1760	0		
35		1880	0		
36		2000	0		
	0				

BO/RO	# of Trees	Total Vol.	Avg. Vol.
	39	6924	177.5385

SPECIES		JH		1 LOG		SPECIES		OH		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
12	7	57	399		12		80	0			
13	2	68	136		13	2	96	192			
14	1	79	79	detweiler	14	2	110	220			
15		92	0	unit8	15		128	0			
16		105	0		16		147	0			
17	1	118	118		17	1	166	166			
18		135	0		18		188	0			
19		152	0		19		212	0			
20		170	0		20		236	0			
21		189	0		21		262	0			
22		209	0		22		290	0			
23		228	0		23		316	0			
24		252	0		24		346	0			
25		275	0		25		376	0			
26		300	0		26		410	0			
27		325	0		27		440	0			
28		348	0		28		480	0			
29		378	0		29		515	0			
30		410	0		30		550	0			
31		440	0		31		595	0			
32		470	0		32		635	0			
33		500	0		33		680	0			
34		530	0		34		725	0			
35		565	0		35		770	0			
36		600	0		36		820	0			
	11		732			5		578			

SPECIES		OH	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13	1		118	118
14			140	0
15			160	0
16			180	0
17			208	0
18			235	0
19			265	0
20			295	0
21			328	0
22			362	0
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	1			118

SPECIES		OH	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16			213	0
17			245	0
18			278	0
19			314	0
20			350	0
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	0			0

SPECIES		OH		3 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL	DIAMETER	# OF TREES	VOLUME	TOTAL VOL
12		124	0				
13		149	0				
14		184	0				
15		214	0				
16		247	0				
17		281	0				
18		320	0				
19		360	0				
20		400	0				
21		450	0				
22		495	0				
23		540	0				
24		595	0				
25		645	0				
26		700	0				
27		760	0				
28		810	0				
29		870	0				
30		930	0				
31		1000	0				
32		1070	0				
33		1140	0				
34		1210	0				
35		1290	0				
36		1370	0				
				0			

SPECIES		OH		3.5 LOGS			
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.
12		130	0				
13		161	0				
14		194	0				
15		232	0				
16		274	0				
17		314	0				
18		360	0				
19		405	0				
20		450	0				
21		505	0				
22		555	0				
23		610	0				
24		670	0				
25		730	0				
26		790	0				
27		850	0				
28		920	0				
29		990	0				
30		1060	0				
31		1140	0				
32		1210	0				
33		1290	0				
34		1380	0				
35		1460	0				
36		1550	0				
				0			

SPECIES		OH	4 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES		OH	4.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

OH	# of Trees	Total Vol.	Avg. Vol.
	17	1428	84



Stand 1	Plot	Saw timber	Dia TP	Tot BO/RO	Dia BO/RO	Tot Dia CO	Dia RM	Tot Dia WO	Dia BB	Tot Dia BC	Dia OH	Tot	Pulp 5' Bolt count	Total Pulp Bolts	Tons/ Acre .9	Total trees at each point	Total basal area at each point	
mgt. unit 9	1	5					5,10,10	3			8	1	4,2,4,5	15	14	9	90	
	2	6				10,8,10,11	4		10	1	7,10	2	4,5,4,4,5,5,5	32	29	13	130	
	3	6				8,11,6	3		9	1	11,12	2	3,4,5,3,5,1	21	19	12	120	
	4																	
	5																	
	6																	
	7																	
	8																	
	9																	
	10																	
	11																	
	12																	
	13																	
	14																	
	15																	
	16																	
	17																	
	18																	
	19																	
	20																	
	21																	
	22																	
	23																	
	24																	
	25																	
	26																	
	27																	
	28																	
	29																	
	30																	
		17	0					10										
Subtotal			average BA		110					2		5					110	

SPECIES		)H		1 LOG		SPECIES		OH		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
12		57	0		12		80	0			
13	1	68	68		13		96	0			
14	2	79	158	detweiler	14	2	110	220			
15		92	0	unit9	15		128	0			
16		105	0		16	1	147	147			
17		118	0		17	3	166	498			
18		135	0		18	1	188	188			
19		152	0		19		212	0			
20		170	0		20	1	236	236			
21		189	0		21		262	0			
22		209	0		22		290	0			
23		228	0		23		316	0			
24		252	0		24		346	0			
25		275	0		25		376	0			
26		300	0		26		410	0			
27		325	0		27		440	0			
28		348	0		28		480	0			
29		378	0		29		515	0			
30		410	0		30		550	0			
31		440	0		31		595	0			
32		470	0		32		635	0			
33		500	0		33		680	0			
34		530	0		34		725	0			
35		565	0		35		770	0			
36		600	0		36		820	0			
	3		226			8		1289			

SPECIES		OH	2 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			100	0
13			118	0
14			140	0
15			160	0
16			180	0
17			208	0
18	2		235	470
19			265	0
20			295	0
21			328	0
22	1		362	362
23			396	0
24			430	0
25			470	0
26			510	0
27			550	0
28			595	0
29			640	0
30			685	0
31			740	0
32			790	0
33			840	0
34			900	0
35			950	0
36			1010	0
	3			832

SPECIES		OH	2.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12			114	0
13			134	0
14			163	0
15			188	0
16			213	0
17			245	0
18			278	0
19			314	0
20	1		350	350
21			390	0
22			430	0
23			470	0
24			510	0
25			555	0
26			605	0
27			650	0
28			700	0
29			760	0
30			810	0
31			870	0
32			930	0
33			990	0
34			1060	0
35			1120	0
36			1190	0
	1			350

SPECIES		OH		3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12		124	0		
13		149	0		
14		184	0		
15		214	0		
16		247	0		
17		281	0		
18		320	0		
19		360	0		
20		400	0		
21		450	0		
22		495	0		
23		540	0		
24		595	0		
25		645	0		
26		700	0		
27		760	0		
28		810	0		
29		870	0		
30		930	0		
31		1000	0		
32		1070	0		
33		1140	0		
34		1210	0		
35		1290	0		
36		1370	0		
	0				

SPECIES		OH		3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		130	0		
13		161	0		
14		194	0		
15		232	0		
16		274	0		
17		314	0		
18		360	0		
19		405	0		
20		450	0		
21		505	0		
22		555	0		
23		610	0		
24		670	0		
25		730	0		
26		790	0		
27		850	0		
28		920	0		
29		990	0		
30		1060	0		
31		1140	0		
32		1210	0		
33		1290	0		
34		1380	0		
35		1460	0		
36		1550	0		
	0				

SPECIES		OH	4 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES		OH	4.5 LOGS	
DIAMETER	# OF TREES		VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

OH	# of Trees	Total Vol.	Avg. Vol.
	15	2697	179.8

SPECIES		TP		1 LOG		SPECIES		TP		1.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.	Column1	DIAMETER	# OF TREES	VOLUME	TOTAL VOL.			
12		57	0		12		80	0			
13		68	0		13		96	0			
14		79	0	detweiler	14		110	0			
15		92	0	unit9	15		128	0			
16		105	0		16		147	0			
17		118	0		17		166	0			
18		135	0		18		188	0			
19		152	0		19		212	0			
20		170	0		20		236	0			
21		189	0		21		262	0			
22		209	0		22		290	0			
23		228	0		23		316	0			
24		252	0		24		346	0			
25		275	0		25		376	0			
26		300	0		26		410	0			
27		325	0		27		440	0			
28		348	0		28		480	0			
29		378	0		29		515	0			
30		410	0		30		550	0			
31		440	0		31		595	0			
32		470	0		32		635	0			
33		500	0		33		680	0			
34		530	0		34		725	0			
35		565	0		35		770	0			
36		600	0		36		820	0			
	0		0			0		0			

SPECIES	DIAMETER	2 LOGS	
		# OF TREES	TOTAL VOL.
	12		0
	13		0
	14		0
	15		0
	16		0
	17		0
	18		0
	19		0
	20		0
	21		0
	22		0
	23		0
	24		0
	25		0
	26		0
	27		0
	28		0
	29		0
	30		0
	31		0
	32		0
	33		0
	34		0
	35		0
	36		0
		0	0

SPECIES	DIAMETER	2.5 LOGS	
		# OF TREES	TOTAL VOL.
	12		0
	13		0
	14		0
	15		0
	16		0
	17		0
	18		0
	19		0
	20	1	350
	21		0
	22	1	430
	23		0
	24		0
	25		0
	26		0
	27		0
	28		0
	29		0
	30		0
	31		0
	32		0
	33		0
	34		0
	35		0
	36		0
		2	780

SPECIES		TP		3 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL		
12		124	0		
13		149	0		
14		184	0		
15		214	0		
16		247	0		
17		281	0		
18		320	0		
19		360	0		
20		400	0		
21		450	0		
22		495	0		
23		540	0		
24		595	0		
25		645	0		
26		700	0		
27		760	0		
28		810	0		
29		870	0		
30		930	0		
31		1000	0		
32		1070	0		
33		1140	0		
34		1210	0		
35		1290	0		
36		1370	0		
	0				

SPECIES		TP		3.5 LOGS	
DIAMETER	# OF TREES	VOLUME	TOTAL VOL.		
12		130	0		
13		161	0		
14		194	0		
15		232	0		
16		274	0		
17		314	0		
18		360	0		
19		405	0		
20		450	0		
21		505	0		
22		555	0		
23		610	0		
24		670	0		
25		730	0		
26		790	0		
27		850	0		
28		920	0		
29		990	0		
30		1060	0		
31		1140	0		
32		1210	0		
33		1290	0		
34		1380	0		
35		1460	0		
36		1550	0		
	0				



SPECIES	TP	4 LOGS		
		# OF TREES	VOLUME	TOTAL VOL
12				0
13			171	0
14			205	0
15			250	0
16			295	0
17			340	0
18			400	0
19			450	0
20			500	0
21			550	0
22			610	0
23			680	0
24			740	0
25			810	0
26			880	0
27			950	0
28			1020	0
29			1100	0
30			1180	0
31			1260	0
32			1350	0
33			1440	0
34			1530	0
35			1630	0
36			1725	0
		0		0

SPECIES	TP	4.5 LOGS		
		# OF TREES	VOLUME	TOTAL VOL.
12				0
13				0
14				0
15				0
16			326	0
17			378	0
18			440	0
19			500	0
20			570	0
21			635	0
22			715	0
23			800	0
24			870	0
25			950	0
26			1020	0
27			1100	0
28			1190	0
29			1280	0
30			1360	0
31			1450	0
32			1550	0
33			1650	0
34			1760	0
35			1880	0
36			2000	0
		0		0

TP	# of Trees	Total Vol.	Avg. Vol.
	2	780	390

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**Detweiler Park  
Building Assessment  
Report**

## **1. SUMMARY NARRATIVE:**

### **Stone Farmhouse**

Two-story, four- bay, stone farm house dating from 1861.

Overall form is historically intact with altered details.

Though, currently unoccupied, it is suitable for immediate residential, or office, use.

There is no accessible route to the entrance doors and primary functions within.

Counting the Basement, the structure contains 2,375 G.S.F. of space.

#### **Exterior**

PA fieldstone walls in good condition with non-historic pointing.

Asphalt shingle roofs in fair to good condition.

Replacement windows, throughout, are sound.

Porches generally original with altered details.

Exterior doors consistent with style of building.

Wood trim at eaves/gables are original, sound and need paint.

Stone walls and walks need maintenance.

#### **Interior**

The Main floor is pleasant, with an "open plan" and is usable as is.

Fireplace and some details are historic and in good condition.

Kitchen is usable with stove and refrigerator.

No toilet room on Main floor level.

The Second floor is largely original with three rooms and a bathroom.

Bathroom is usable with tub/shower and finishes from the 1940s, w/ modern fixtures.

The balance of Second floor is carpeted and generally pleasant and original

The Attic has low headroom, steep stairs and is not usable for occupancy.

The Basement appears to be dry, has low headroom (6'-5"), with direct access to grade.

The Basement has been upgraded to be usable for Class C, Office use.

The Basement utility room has a modern boiler, elect Hot Water Heater and Well tank.

The Utility room has a modular shower and toilet, but no sink, or enclosure.

In the Utility Room is an historic, walk-in fireplace. The boiler is vented into this chimney.

It is not known if the chimney is lined, but both chimneys appear sound on the exterior.

The electric service appears to be modern and the type/age of the wiring was not visible.

The house appears to be on a septic system with its details unavailable.

There are no exit signs, or other life-safety systems.

## **The Garage**

One-story, cinder-block building with wood truss roof, dating from 1930s. Though, currently unoccupied, it is suitable for immediate garage, or workshop, use. The main level is at grade with the parking area. Counting the Basement, the structure contains 1,210 G.S.F. of space.

### **Exterior**

Cinder Block walls with steel sash windows are generally in good condition. Asphalt shingles, gutters and wood siding/trim also in good condition.

### **Interior**

The concrete floor at Main level is cracked and should have structural analysis performed. If used as a workshop the Main level needs a man-door installed. Asphalt shingles, gutters and wood siding/trim also in good condition. No insulation, heat, plumbing, sewer, or electric service. There is a hose bib and minimal electric power – presumably from the Farmhouse. The Basement structure, that supports the floor above, is of modern steel and appears strong. Basement is dry, with concrete floor and low headroom (6'-3"). Storage uses only. There are no exit signs, or other life-safety systems.

## **The Barn**

Two-story, four-bay, stone and heavy timber, bank-barn dating from the mid/late 19<sup>th</sup> century. Overall form is historically intact with altered details. It is currently unoccupied and will require significant work to make it suitable for modern uses. Light-duty storage may be the most suitable use. The structure contains 6,700 GSF of space.

### **Exterior**

The stone foundation, of large sandstone blocks, in an ashlar pattern, needs some stabilization. That said, they are generally intact and quite beautiful. The asphalt shingle roof on the east shed is in fair to good condition. The main roof is of modern, painted steel and is in fair condition. At the Upper level, the exterior walls are of vertical boards with a layer of asbestos siding. The asbestos siding is in good condition. At the Upper-level entrance, the exterior wall is of large hinged doors, with T&G wood siding. There are several rectangular & round, wood louvers within the exterior walls that are old – possibly original. The exterior siding, louvers, doors and rim are all in poor to fair condition. With basic maintenance and painting, they can continue in their present state for years.

### **Interior**

The lower level was most recently used for animal uses with a low ceiling height (7'-5"). The stables' features date from the early 20<sup>th</sup> century with wood stalls and metal fittings. The lower level floor is of concrete, dirt and wood planks and the ceiling is wood boards. The lower level has 30+ wood posts with no portion offering unobstructed floor areas. The lower level is generally dry and any interconnecting stairs have been removed. The Main (upper) level is a typical PA barn with heavy timber bents and wood plank floor. The Main level originally supported farm-equipment, wagons and hay. The Main level interior space is open, spacious and quite handsome, though rough. The height under the bents is 14 feet, with the height to the ridge topping at 24+/- feet. On either side of the bank entrance are two sheds. One was use as a farm office, while the other contains agricultural equipment that may have some historical value. The structural frame and floor should be analyzed to determine its capacity for modern uses. The building has no insulation, heat, plumbing, sewer, or electric service. It had electric service, but it has been cut. It may have minimal water service. There are no exit signs, or other life-safety systems.

## **The Hangar**

Modern wood and steel frame structure with low-slope metal roof, built after 1984. It is currently occupied and requires minimal work to maintain its current occupancy. The structure contains 6,000 GSF of space on one level. The entrances are not accessible, though they can easily be made to comply. There are no exit signs, or other life-safety systems and the bathrooms are not fully accessible.

### **Exterior**

The building has two large exterior doors. One a drive-in and the other a bi-fold hangar door. The exterior walls are covered with painted steel siding and the roof has a painted steel roof. The building's main floor is at grade.

### **Interior**

The main area is a multi-purpose room with a concrete floor and 15 ft. clear height. The building is insulated with drywall ceiling, lights and power for modern uses. On the north side there are two separate areas, which contain a break-area with toilet rooms and a separate office area with outside man door and windows. The building is heated with electric baseboard and the multi-purpose room may not be heated at all (TBD). The building has its own electric service, a well and on-site septic system

## **The Detweiler House**

Wood frame, with brick veneer/siding, structure built in the 1940s by the Detweiler family.

Significant additions built over intervening years ending in the 1970s.  
Recently, some of the additions were removed and the remainder renovated.  
Currently unoccupied, the 4-bedroom, 3-1/2 bath house is in move-in condition.  
There is no accessible route to the entrances.  
Though built in a traditional style, the structure is not historic.  
The house is not able to be easily converted to a code compliant, non-residential use.  
Not counting the partial basement, the house has 3,303 G.S.F. of space.

### **Exterior**

Brick veneer and alum/vinyl sided exterior walls in good condition.  
Windows are a mixture of wood windows (with storms) and new vinyl units.  
Asphalt shingle roof on two-story portion is older, though sound.  
Exterior trim is capped with aluminum.  
Brick terraces and low walls, are in good shape and provide a nice feature to the house

### **Interior**

The main floor is a very pleasant, traditional-style house in excellent condition.  
Wood floors throughout both living levels with built-ins and trim as appropriate.  
The 2<sup>nd</sup> flr. Bathrooms are from the original construction and small by contemporary standards.  
Bathrooms not easily convertible to ADA standards, but possible.  
Partial basement is unfinished, dry and suitable for utility purposes only.  
Recent-vintage, single-zone, forced air heating/cooling unit in basement.  
No sign of oil storage tanks inside, or outside, the house. Fuel source TBD.  
Electric service is dated with old wires, should be replaced.  
Elec. subpanels are modern though distribution wires in house may be of mixed vintage.

## **The Pool House**

Modern, one-story, wood- frame structure built between 1975 and 1981.  
It is currently unoccupied and in fair condition. Though not suitable for immediate use.  
There is no accessible route to primary spaces though access can be fairly easily provided.  
The structure contains 690 G.S.F. of space.  
The pool has been recently removed and filled in.

### **Exterior**

The exterior walls are of stained wood clapboards in fair to good condition.  
The exterior trim is also of stained wood, with signs of recent carpenter bee damage.  
The roof is of asphalt shingles in good condition.  
The exterior doors are a mixture of wood and metal - both hinged and sliding units.  
Some doors aren't wide enough for ADA access and sliding doors not suitable for egress.

### **Interior**

The primary space has sliding doors facing south toward a concrete terrace.  
This is a very pleasant space suitable for many uses, with a brick BBQ grill & built-in cabinets.

On either side of main room are two changing spaces with outside entrances only. The vaulted ceiling in the main (south) portion of the structure is 11 feet high at ridge. A separate wing to the north contains a changing area with separate shower and Powder room. The toilet room is fairly easily convertible to an ADA compliant facility. The interior finishes are rustic, with the primary (south) space having higher quality materials. The electric service comes from the main house and is quite small in capacity. The structure is neither heated, n or cooled, and has an electric hot water heater. The sewer system is presumably a separate from the house's septic system (TBD).

## **The Stable**

Modern, one-story, wood- frame structure built between 1975 and 1981. It is currently in-use by the County as a maintenance building. It is in fair to good condition and is suited for its current use. The route to the primary spaces is not fully accessible, but one can be easily provided. The structure contains 825 G.S.F. of enclosed space with an additional 1,000 S.F. under roof.

### **Exterior**

The exterior walls are of vertical plywood siding in fair condition. The siding needs to be replaced along the bottom of the west façade. The exterior doors are stable doors with a separate overhead door into the tractor garage. The roof slope is quite low for asphalt shingles, which currently are in good condition. The exterior trim has been capped with metal and is it fair to good condition. The carport portion of the structure is of concrete and macadam and is in good condition. The drop off along the "stable-door" walkway, is a hazard, esp. if accessed by the public.

### **Interior**

There is a workshop accessed by a stable-type door and a tractor/equipment garage to its west. Neither space is conditioned and both are unfinished. The demising wall between the two spaces has a door connecting them. Presumably the electric service is from the house, with its capacity TBD.

## **The Fish Hatchery**

Modern, one-story, wood- frame structure built sometime after 1970. Land was gifted to Dauphin County Anglers by General Stackpole in 1950s. It is currently occupied by the Anglers' Association and is suited for the use. The current building has had various additions/ modifications. It is in fair to good condition though it is subject to flooding by Clark Creek. An accessible route to the primary entrance is under construction. There is no interior toilet room and presumably there is no on-site septic available. An outdoor covered space at grade is a primary function for the Anglers Association. The interior space is 980 G.S.F. with an additional 720 S.F. under roof.

### **Exterior**

The exterior walls are covered with recent-vintage vinyl siding.



Beneath the vinyl may be wood siding of unknown condition.

The exterior wood doors, windows and exterior trim are of wood & in fair condition

The roof is a low slope for asphalt shingles. Their condition is TBD, with no sign of leaks.

The area under roof, along the creek, with a steel structure & concrete slab is in good condition.

The main floor is raised above grade and the crawl space beneath is ventilated.

Installing current-technology flood-gates into the crawl space is recommended.

An accessible ramp and steps to the main entrance is under construction

### **Interior**

The new accessible walk/steps lead to a multi-purpose room w/ separate food-prep/utility area.

The interior spaces are suitable for their use, but have a low (7 ft. +/-) ceiling.

The utility/kitchen area has food-prep counters and refrigerator, but no stove.

A recent vintage, forced-air heater, uses gas, or propane, (verify) as fuel source.

Cooling is by way of window unit(s).

There is 100 amp overhead electric service, with an electric panel of old-style circuit breakers.

There is no interior toilet facility, as the site uses port-a-potties.

## 2. BUILDING DETAILS:

### Stone Farmhouse

This structure is a two-story, four bay, stone building with a date stone on the front elevation recording 1861 as its year of a construction. Built along Peter's Mountain Road it has served as a residence since it was built. The full lineage of family ownership is unknown. While the building is currently unoccupied, it is heated and is well maintained enough for immediate use.

It is generally original and, in appearance, is a typical historic Pennsylvania farmhouse. Its overall form is intact, though its details have been significantly altered.

Counting the Basement, but not the Attic, the house contains 2,375 GSF of space.

### The Exterior

The exterior walls are of load-bearing tan/brown-colored Pennsylvania fieldstone. It has non-historic ribbon pointing in good condition. The roof is of asphalt shingles, estimated at about halfway through their 25 year life expectancy. The windows are recent-vintage, vinyl, double hung, replacement windows with muntins between the glass. The attic windows are wood and may be original. The exterior window trim has been capped with aluminum. The exterior doors are wood, traditionally-style doors with their original transom sash intact. The front door may be original. The soffit/fascia at the eaves and the raking gable trim are of painted wood and may be original. The gutters and downspout are painted aluminum and need downspouts added and better pitch to function properly. The chimneys are of brick, with metal capping and appear to be in good condition.

The front (west) elevation of the building has a small entrance porch which is no longer accessed by a walk or path. At one time there were steps in the stone wall along Peter's Mountain Road and a path that led to the front door. The floor of the porch is of concrete and the railings are a recent vintage vinyl railing system. The posts, ceiling and trim are painted wood and are vintage. The roof and downspout match the house. The porch floor is a step above grade and most likely was of painted-wood originally. The side (south) elevation has a wood porch along its entire length which also has a roof, trim and gutter system similar to the house. The post appear original and the rest on a modern, unpainted wood, floor structure that has pressure treated, butted floor boards with a vinyl railing system. The porch is of two levels and is accessed by wide concrete steps with decorative iron railing and stone wall base. This stair leads to a concrete sidewalk in poor condition that connects to a macadam driveway.

The south porch floor and structure sits on three thick stone walls, which form two niches that are accessed by stone paved sidewalks that lead to the parking lot and driveway. These niches have concrete floors, with the western one providing low-headroom accesses to the Basement floor.

The building is not ADA accessible due to steps along the path of travel and the narrow entrance door widths.

**Peters Mountain Road Farmhouse**



Front Façade from Peter’s Mountain Road



Rear and North Facades



South Façade Showing Porches and Door to Basement Level



Non-Accessible Entrance Detail

## The Interior

### First Floor Level

The main floor is pleasant, well-maintained, though it is likely the original layout had walls that separated the main room into distinct rooms. Its “open plan” is one of the building’s defining characteristics and, because of which, it may be more suitable for modern uses, than if it were original. This large interior space is, well-maintained, with a red-toned wood floor (possibly original), deep window sills, wood trim and fireplace with historic mantel/hearth as distinctive features. The finishes are in good condition.

The kitchen, has likely been in its current location for many years, though it’s possible the original kitchen may have been in the basement, or in an attached summer kitchen, of which there is no evidence. The kitchen is in a “country style” with wood ceiling, open shelves, electric stove and appliances/counter that are 15-20 years old. It is serviceable and pleasant and not in need of repair. It has a large brick chimney on the south end that serves the basement fireplace and boiler below.

### Second Floor Level

The second floor is largely original. It consists of three bedrooms, separated by a central hallway at the top of the stairs from below. At the Southeast corner is a large bathroom with tub/shower. The finishes and two-panel doors are largely original with the hardware a mix of metal and glass knobs. The glass knobs, as well as the paired doors that access the front rooms, are likely from the first half of the twentieth century. The plaster is largely in good condition and all the floors are carpeted, likely with wood floors beneath. The bathroom has white and black tiles floor and walls, likely from the 1940s.

### Attic Level

The Attic level is one large space accessed by steep, winding stairs. It is suitable for light storage, but no real occupancy. The roof structure is modern 2x framing with plywood sheathing. The attic floor boards may be original. The end walls are stuccoed. Headroom is limited.

### The Basement

The Basement level was used most recently as an office space. It is accessed by way of an interior stair from the kitchen and a door leading outside to the parking area. The floor is carpet over concrete. The walls have a faux stone and wood paneling both of which are painted. The exposed first floor structure serves as the ceiling and is primarily of logs, which provide low, but generally code compliant headroom. A separate room has a toilet, sink and shower shared with a boiler, well tank and hot water heater. This room contains a walk in fireplace that is original to the house, which is used to vent the boiler.

The hot water boiler and radiator are functioning as is the well and apparently the septic system. The electrical panels are a modern vintage. There are no exit signs or emergency lights, which would be needed for a non-residential use. There are some smoke detectors which are needed for a residential use, but their suitability per code should be confirmed.





First Floor Overview



First Floor Kitchen



Second Floor - Typical Bedroom



Second Floor Bathroom



Stairs to Attic



Attic Level





Basement Level - Overview



Basement Level - Utility Room

## The Garage

This structure, located just off the parking area near the Stone Farm House is a one story structure with a partial basement. The building dates to the early to mid-twentieth century, perhaps the 1930s or 1940s, with contemporary repairs made to the basement. It is currently unused and, counting the Basement, offers 1,210 GFS of space. It is not heated and has a hose bib inside the first floor that is supplied from the house. It has electricity from the house.

## The Exterior

The exterior walls of the Garage are of cinder-block, topped with a field-built wood trusses covered with 5/4-board sheathing. The roof has a ridge running lengthwise and the eaves overhang the side walls with a modern aluminum k-gutter and downspouts. The downspouts need missing sections replaced. The roof is of modern 3-tab, asphalt shingles in fair condition with some in-kind patches. The exterior of the cinder block walls are painted with one coat of paint. There is some step cracking, though nothing serious and fairly easily repaired. The pointing is sound. There are six large windows which are 12-light, single pane, industrial steel sash units with 6-light pivoting hoppers at mid-height. They are painted and in good condition for their age. The first floor slab is exposed on the exterior and the construction below the slab varies from stone toward the front and CMU toward the rear. The slab edge and foundation wall could use some repairs and pointing. The basement level doors, need paint but are serviceable.

## The Interior

### Basement Floor Level

The basement level encompasses about 2/3 of the building's footprint. It has a modern concrete slab in good condition. There is a large steel beam, with steel columns that span the width of the space that support the first floor slab above. The first floor slab from below while original to the building appears to be sound, but the same slab from above is cracked in several places. A structural analysis should be performed before loading it with vehicles. The space seems dry, but has low headroom (6'-3") and is only usable for limited storage.

### First Floor Level

The First floor interior has no finishes on the walls, floor and bottom of the trusses. There is some power and lights, presumably fed from the Farmhouse. As mentioned earlier, the slab has several random cracks and while most of it sits on grade, a portion of the cracked structure is over the basement. Further analysis is needed to determine its capacity to support vehicles. There is access to the attic above the ceiling joists for light storage. The clear height is 10'-6". It is accessed by a 9' x 19' overhead door in fair condition. There is no man door, which is a modern code requirement.

**Garage**



Exterior From South-East



Exterior from North-West



Upper Level



Partial Basement

## The Barn

This is a handsome structure constructed in the mid nineteenth century. It is a classic Pennsylvania bank-barn and is visually paired with the stone farmhouse. The barn has two-stories and four bays, that are defined by the timber framing within. The upper floor is used for light duty storage, and the lower level, where the former stables are located, is all but unused. The structure contains 6,700 sq. feet of space and has not electric, or other, utilities.

## The Exterior

The exterior walls of the building are stone and masonry at the lower level. The upper level has vertical, wide-board wood siding covered with what is most likely asbestos siding. The roof is of painted steel panels, which are in fair condition. The roof material is not a long-lived material and may be getting near the end of its useful life, though currently it appears to not be leaking.

The stone foundation walls, which is on three sides of the barn, are of a medium-brown sandstone of fairly large stones with distinct pointing. It is not a rubble foundation. At the façade facing the road, the stone is laid with horizontal coursing, all of a large size, in an almost ashlar fashion. There are some step cracks at the south-east corner, which is typically caused by uneven settling of the foundation and should be repaired within the next several years. The stone walls, away from the road, are of the same material, but the sizes are not uniformly large and the pattern is more random. The long east façade has a one story “porch” for its full length, supported by wood posts with asphalt shingle roof. The masonry wall below the porch is modern concrete block which, while sound, is not visually compatible with the historic appearance of the building.

The term bank barn refers to the siting of a barn so that the upper level is accessed by way of a sloped, earthen “ramp”. This allows drive in access to the upper level and allows the lower level also be on-grade for easy access. This barn’s ramp enters on the west side between two projecting wings that are an extension of the main roof slope and shape. At the top of the ramp are several large hinged doors that are the wall’s full height. These doors are of vertical beaded wood siding and are not covered with the asbestos siding material. They have smaller “man-doors”, for quick access, and the hardware appears original. The asbestos siding is in good condition and likely has many years of useful life. It is not damaged overall, and doesn’t appear friable. The wood siding, beneath the asbestos, appears sound from within the building. The barn has several wood louvers in poor to fair condition and some multi pane wood window sash (though, at the lower level, the window frames have had the window sash replaced with plastic glazing). The louvers and windows are serviceable and need paint in the near future. The exterior walls and roof are doing an adequate job of keeping out the weather for the building’s current use.



**Barn**



Exterior from South-East



Exterior From North-West (with Garage in Foreground)



Entrance Doors at top of Bank Ramp



Stone in Need of Repair at North-East Corner

## The Interior

### Lower Floor Level

The lower has a clear height of approx. nine feet and contains the stables and features expected in a dairy barn. There are many wood posts supporting the wood frame structure above and the stables, while intact, are not suitable for reuse for farming without significant work. They may have value as artifacts, and should that be desired, perhaps it would be for a small portion of the dozen or so that remain. There are no connecting stairs between the levels, though there are some remnants from when there were. The ceiling is of wood boards. The stalls typically have dirt floors. The interior stone walls are in need of repair and pointing.

### Upper Floor Level

The upper floor is constructed of heavy timber frames, or bents, that separate the floor into four bays. Each bent is constructed with mortise and tenon connections of the original wood members that have angle struts that support purlins that in-turn support the roof rafters above. The height under the bents is approx. 14 feet and the height to the ridge is 24 feet above the wooden plank upper floor level. This level originally supported farm equipment and hay and it currently is storing canoes on trailers. This is an appropriate use and there are no obvious signs of structural deficiency for such uses in the future. On either side of the banked ramp are two wings that, to the north contained a room which may have served as the farm manager's office. It has wood partitions, some of which have interesting hex-like markings. The south wing has old equipment in it which may have been used to provide food to the stables below. Neither level has exit signs, emergency lights, or electric power,





Lower Level - Overview



Lower Level – Stable Detail



Upper Level - Overview



Hex Scribing on Upper Level Partitions

## **The Hangar**

This building formerly served the airport as a hangar and office. It is a modern (1985+/-), "Butler-type", prefabricated, steel building of approx. 6000 sq. feet of floor area on one story. There is no mezzanine or basement. It has service electric, a well for water and septic for sewer. There are no signs of oil, or propane, for heat. It is presumed to be electric heat in the areas occupied by people. The building is currently occupied by a contractor, who leases it from the County.

## **The Exterior**

The exterior walls and roof of the building are of painted steel sheets attached to metal purlins and appear original. The exterior envelope is sound and in good condition. There is a 21' wide sliding door on the road side of the building and a 44' wide overhead folding door on the east façade toward the gravel parking area. These doors and the man doors all have concrete aprons. The windows are metal clad sliding units with screens.

## **The Interior**

The interior is divided into three areas. The first is a large space formerly used for storing airplanes which has a 15' +/- drywall ceiling with surface-mounted fluorescent lights. This space is served by the two large doors and two man-doors and provide. It has a concrete floor and the walls are covered in plywood. It is likely the walls and ceiling are insulated, but what with and how much is unknown. The second area is on the corner away from the road and it is an office space with windows on two sides. The space is approx. 350 sq. feet in area with standard office finishes. The area has electric baseboard heat and is in clean and usable condition. The third area is a break room with a window, kitchenette, and two non-ADA toilet rooms. The finishes are similar to the office and this area also has electric baseboard heat. The kitchenette has an electric range/oven and is approx. 150 sq. feet in area. One bathroom has a shower and contains the well tank and the other is a sink and toilet only. Neither are adequate in size per accessibility requirements and there are no grab-bar, or other related features. There are no exit signs, or emergency lights in the building.



**Hangar**



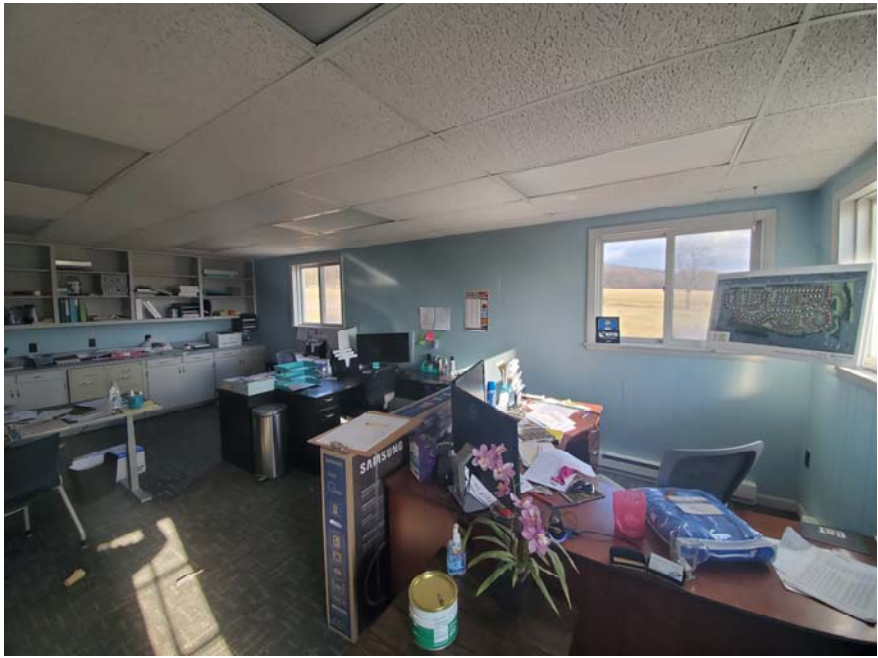
Exterior from South-East



Exterior from North-West



Overview of Hangar Former Space



Office Area



Break Room with Kitchenette



Typical Toilet Room Detail

## The Detweiler House

This is a wood frame house built in the 1940s by the Detweiler family. It is built in a traditional (neo-Georgian) style of brick, mixed with horizontal siding and with a sloping shingle roof. It had significant additions in the 1970s, some of which have been recently removed. The four bedroom, 3.5 bath house has 3,300 sq. feet of floor area (not counting the partial basement). It is currently unoccupied, though it is immediately usable as a residence and has all utilizes operating. The house has on-site septic system, a well for water and, while it may have had oil heat at one time, it appears to be heated and cooled by an electric heat pump located in the basement. Heating and cooling is distributed by forced air ducts and registers to the interior rooms.

## The Exterior

The exterior walls are primarily of brick veneer on the front and driveway side with a mix of horizontal aluminum and vinyl siding on the opposite side and rear. The two story house with white siding/trim and black shutters is a handsome structure and is in good condition. The entrance is accessed by a paved path with large, semi-circular brick terraces on the front, and a similar terrace at the rear. While traditionally styled, it is not an historic structure.

## The Interior

### First Floor Level

The main living level, while primarily traditional early American neo-Georgiaqn in style, is instead a hybrid style. Essentially a center hall house, with dining to the left of the entrance and the original living room to the right. The slightly-awkward entrance foyer is at a lower level to accommodate the sloping grade on the exterior. The original living room is a pass through room with a brick fireplace and leads to one of the 1970 additions, which is a 375 sq. foot "great room", with fireplace and flanking bookcases on the end wall. The dining room is large enough to seat 14 people and has corner cabinet built-ins. At the rear of the floor, under a one story addition is the kitchen, which is bright and modern with granite counters, new cabinets and vinyl floor. The balance of the rear addition has a mud room and powder room accessed from the rear yard under a small porch. The kitchen also has an exterior door that leads to a covered porch entrance off the rear lawn.

### Second Floor Level

The stairs off of the front entrance hall have a large window and terminate on a hallway that runs the length of the second floor. This floor has four bedrooms and three bathrooms and has solid wood floors throughout. To the west of the stair are two bedrooms, one of which, on the front of the house, has a private bathroom with a tub/shower. This bathroom is nearly original vintage in terms of finishes, which include tile floors and wainscoting. The hallway lading to the east has two bathrooms along the north wall and a single bedroom on the south. The first bathroom has a tub/shower and is meant to be shared by the two bedrooms without baths. This too is nearly original vintage in terms of finishes, which include tile floors and wainscoting. Past this bathroom and bedroom is a door that leads to a suite with a large bedroom over the first floor great room with its own bath. Its finishes are more modern and has a shower only. All the bedrooms have multiple windows, were recently painted and have closets.

### Basement Level

The original house's footprint, which does not include the kitchen, or great-room additions, has a full basement with interior stair. There is no outside access. The basement is of unfinished concrete block walls with concrete floor. It appears dry, has high windows and adequate ceiling height. It is separated into three areas by CMU walls with large openings. The stairs from the kitchen are in the center bay. To the west is the electrical service, hot water heater and well tank and a washer dryer. This side has larger windows that could be modified to provide emergency egress. To the east is the heat pump/air handler. This unit may only service the first floor, with the second floor heated and cooled by a unit in the attic, but that was not observed, as attic access was not available.



## Detweiler House



Exterior from South-West (Showing former 1970s addition prior to demolition)



Exterior from North-West (Current State)



Exterior from North-East



First Floor – View of Old Living Room into Great Room



First Floor – Dining Room



First Floor - Kitchen





Second Floor – Typical Bedroom



Second Floor – 1970s Bathroom



Second Floor – Typical “Original” Bathroom



Basement Level

## The Poolhouse

To the northeast of the main house, accessed by a brick path is a tee-shaped, one story, wood structure built in the 1970s. It contains 690 sq. feet of floor area. At one time it was adjacent to an in-ground swimming pool, which has been removed and filled in. Its electric power comes from the house and it is likely that the plumbing is drained each winter, as the only room with heat appears to be the pool filter room, which also contains an electric hot water heater. The source of the water supply is unknown and it is believed that the sewer is handled by a dedicated on-site septic system. It is in fair to good condition, but not suitable for immediate use.

## The Exterior

The exterior walls of the building are covered with stained, horizontal wood siding, It is in fair condition, with signs of carpenter bees damage to the exterior wood trim. To south of the building, overlooking, what was the pool and is now a lawn, is an at-grade, concrete deck. This is accessed by two dressing rooms and the large great-room in the center. The great room has two pairs of sliding glass doors and two skylights, all of which are in good condition. The roof is of asphalt shingles.

## The Interior

The great room is the centerpiece of the structure. It is well lit and attractive. It may have had a slate floor, but currently is a concrete slab. The side opposite the two sliding glass doors is dominated by a steel BBQ range, set within a brick surround and steel hood with chimney and exhaust fan above. It appears substantial and in good condition. It is flanked full length of the room by cabinets and countertop. The walls and ceiling are of wood boards stained in a light finish and are pleasant. This room is only accessed by the sliding doors.

On either side of the great room is a dressing room, which is more pedestrian in terms of finishes, which are plywood walls with astro-turf carpet on concrete floors. These rooms also have doors that lead to the concrete deck. Behind this main structure is a series of rooms that once contained the pool equipment and a dressing room with bathroom facilities. The dressing room is separated into a shower area and a toilet with sink area. These rooms are lit by skylights and are not heated or cooled. The floors are of slate tiles. None of the doors to any of the rooms are ADA accessible and the plumbing facilities are also not accessible. The facility has no emergency lights or exit signs and is not suitable for public occupancy.

**The Pool House**



Exterior from South-West (with Brick Path from House in Foreground)



Exterior from West





The Great Room with BBQ Built-in



Typical Changing Room Flanking Great Room





Toilet Room Detail



Shower Room Detail

## **The Stable**

To the west of the house, near the driveway is a one story, wood structure built in the late 1970s. It contains 825 sq. feet of floor area, with an additional 1,000 sq. feet under a carport roof. It is in fair to good condition and is currently used by the County for grounds maintenance.

## **The Exterior**

The exterior walls of the building are covered with stained, vertical, plywood (t-111 type) siding. On the back side this is rotted at the bottom and should be replaced before too long. The roof is of asphalt shingles and their age is unknown. The roof appears to not be leaking, but as the slope is low for shingles, they should be kept in good condition going forward. The east side of the enclosed portion of the building has three stable (dutch-type) doors. Two of which are not used due to the interior layout. The one that is used leads to a workshop space. The northern portion of the building is a carport supported by wood posts. The area under the roof is covered with a combination of concrete slab and asphalt paving. Near the workshop is an above ground diesel storage tank. In the wall abutting the carport is an overhead door that leads to an area used for tractor/equipment storage.

## **The Interior**

The workshop is a 250 sq. foot space that has an internal door to the tractor storage area. It has a concrete floor and electric heat. It is assumed that the electric power is provided by the house's service. The tractor storage roof houses equipment by way of a 10 ft. wide overhead door. It is a tall space, open to the roof trusses with a clerestory of translucent fiberglass sheets that let in light near the top of the rear wall. It too has a concrete floor slab and access to a stable door, though it is not used presently. The structure has no emergency lights, or exit sign and is suitable for its current use.

**The Stable**



Exterior View of Stable Doors from Driveway



Exterior of Carport from Driveway



Exterior View of Rear Wall

## The Fish Hatchery

To the east of the entrance to the Detweiler House, across State Route 352, at the side of Clark Creek is a structure built in the 1970s. The building is adjacent to a fish hatchery which is on land that had been gifted to an Anglers Association in the 1950s, by "General" Stackpole. The structure is a one story, wood-frame building on a concrete block foundation. It is subject to flooding and is in fair to good condition. It is currently used by the anglers, though it has no toilet facilities other than port-a-potties located in the adjacent parking area. The structure encloses 980 sq. feet of space, with an additional 720 sq. feet under roof, that is used for outdoor activities.

## The Exterior

The exterior walls of the building are covered with recent vintage vinyl siding. Presumably under that is wood siding on wood studs. The walls sit on a concrete block foundation with is well-parged with stucco with quite a few louvered vents which ventilate moisture below the main floor and offer a degree of hydro-static pressure relief during flood events. The foundation dates from around 2008 and is in good to excellent condition. The building has withstood flooding in the past, with the foundation presumably a result of such an event. The roof over the enclosed structure is a low slope asphalt shingle roof of unknown condition and vintage. It does not show sign of leaking on the interior. The roof over the outdoor "patio" is a flat roof, of unknown type and age. As it was installed after the building was built, it is most likely a single membrane type "rubber" roof. The wood trim is in good condition, as are the windows and doors. It should be noted that, at the time of the author's visit, the angler's association was constructing a new set of steps and a ramp for use by non-accessible persons at the main entrance. The front entrance is covered and the patio has a concrete slab.

There is a structure near the Angler's building which at one time contained toilet facilities. It is not known if these were plumbed with water, or if they were dry, outhouse-type facilities. They are not in use today and were not accessible to the author when visited. Our understanding is that they are to be demolished.

## The Interior

The structure has one level that is located above grade to allow it to be above flooding. It is unknown to the author what the relationship is between the floor and Clark Creek's Base Flood Elevation. The main floor is built of wood plywood flooring over wood floor joists with a ventilated crawlspace below. It is not known if the floor is insulated. The interior space is an L-shaped area with a big general purpose room that has vertical board walls and ceiling. Off of this, and adjacent to the outdoor patio, is a food-service space. There is no cooking equipment in the room. The room has a vinyl floor and a long wall of cabinets and work counter, with refrigerators. The space has a door with steps that leads to the patio and the room is used to service outdoor events in that area. This space has a modern gas fired heater. It is not know where the source of fuel is from. The electric service is 100 amps, with a not-particularly-modern circuit-breaker type panel with no spare circuits. As stated earlier, it is not known if the fuel source is propane, but presumably it is. Also as stated earlier, there is no plumbing in the building. The building is suitable for its use, but had no exit signs or emergency lights.



## The Fish Hatchery



Exterior View from Hatchery Pens



Exterior of new ADA Ramps and Steps at Main Entrance



Exterior Corner Opposite, from Entrance, along State Route 325



Outdoor Covered Patio for Hosting Events





Outdoor Toilet Rooms - No Longer in Use



Overview of Multi-Purpose Interior Space

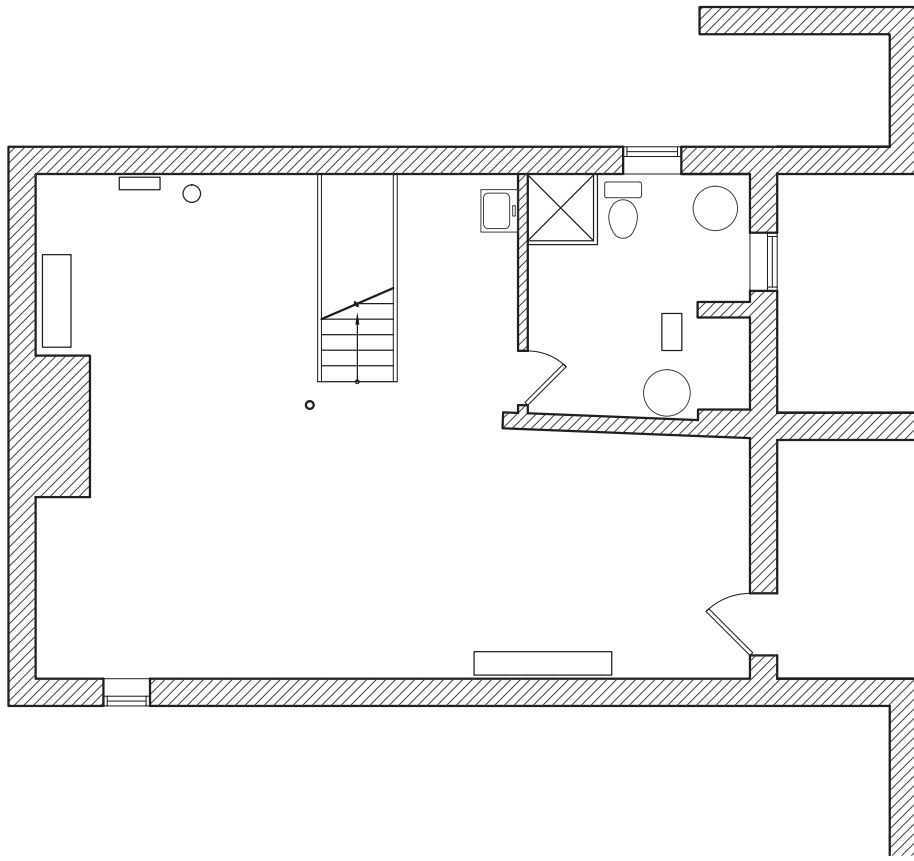




Overview of Food Preparation Space near Patio Doorway



Detail of Electrical Panel



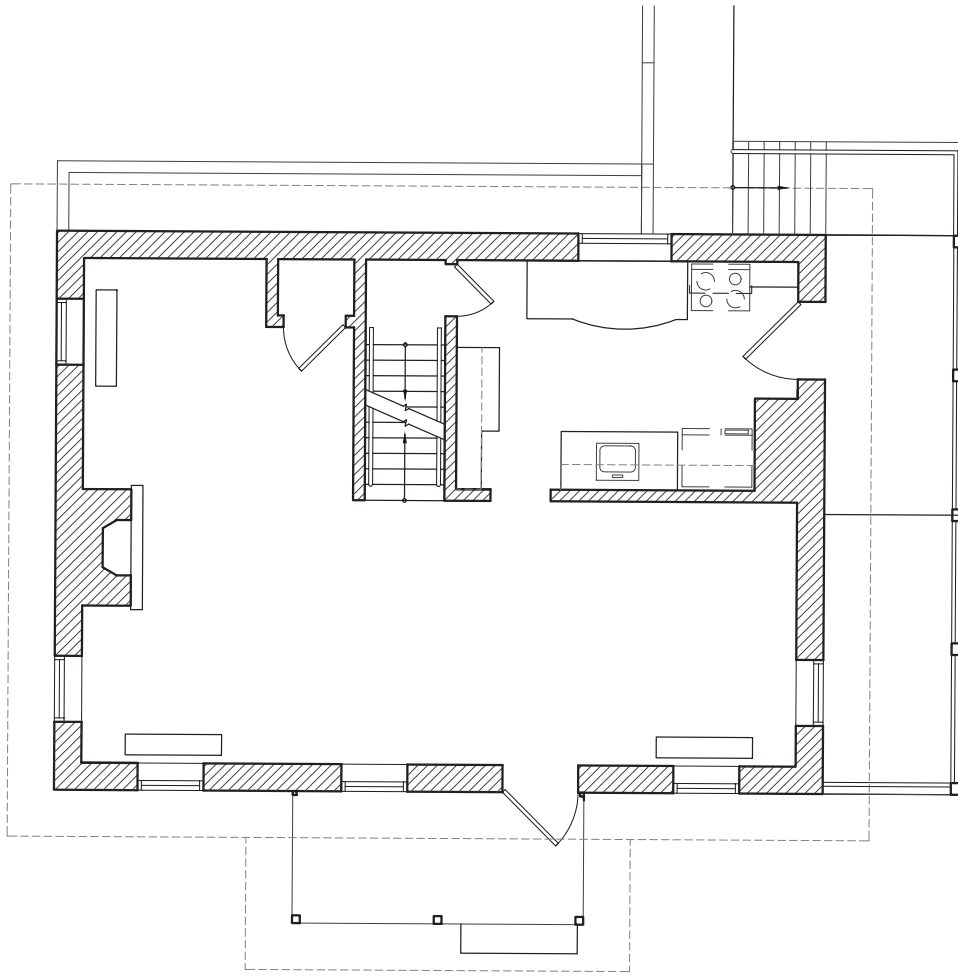
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STONE FARM HOUSE BASEMENT  
DETWEILER PARK

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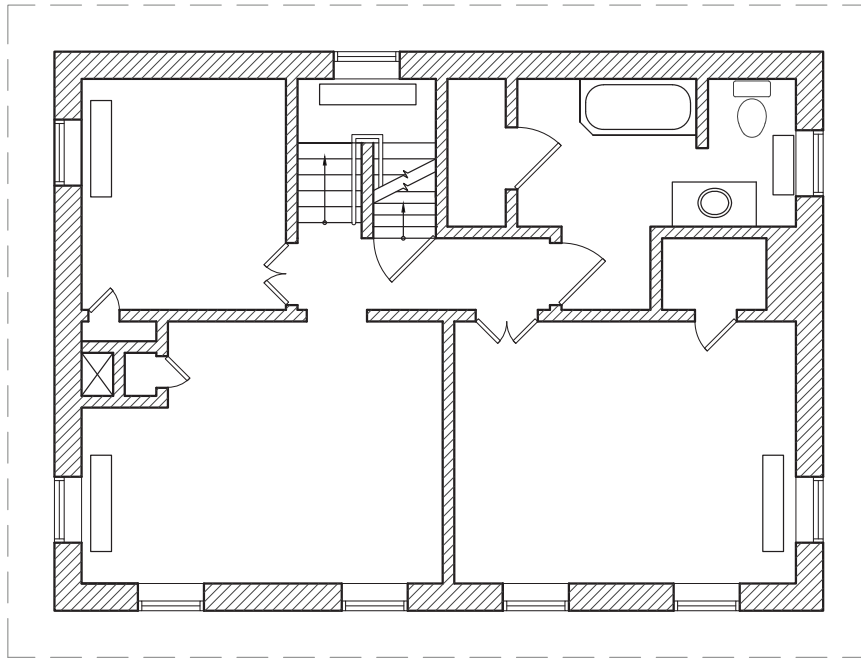


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STONE FARM HOUSE FIRST FLOOR  
 DETWEILER PARK

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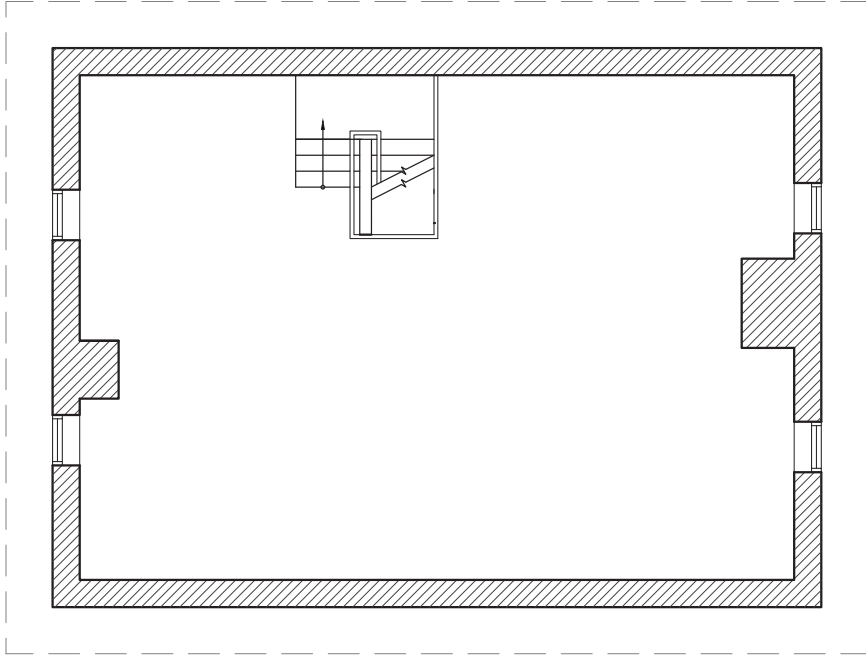
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A3.2

STONE FARM HOUSE SECOND FLOOR  
DETWEILER PARK

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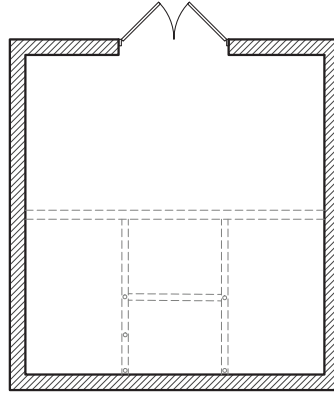
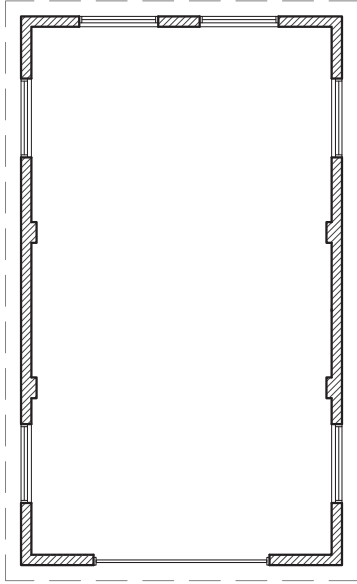
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**STONE FARM HOUSE ATTIC**  
DETWEILER PARK

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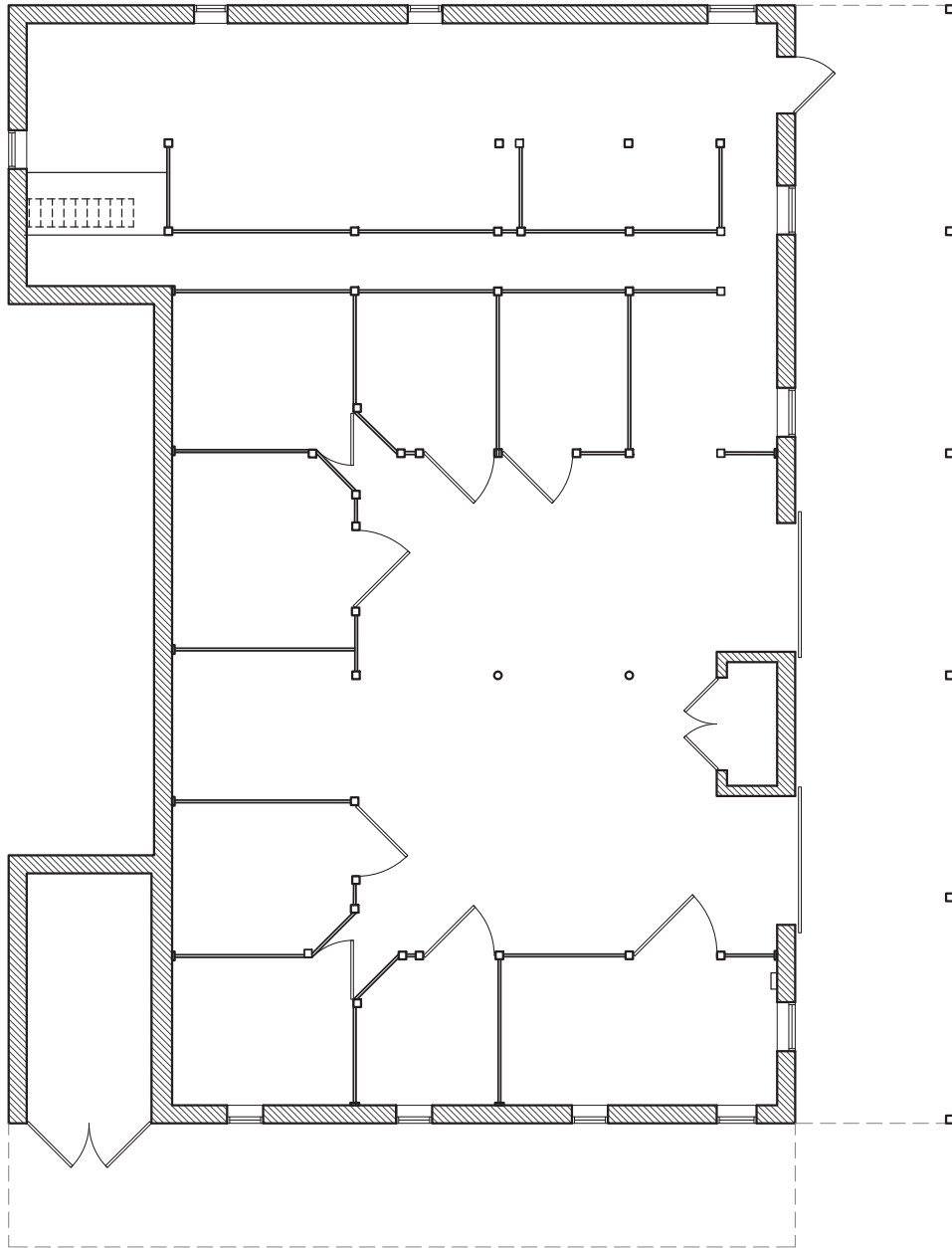
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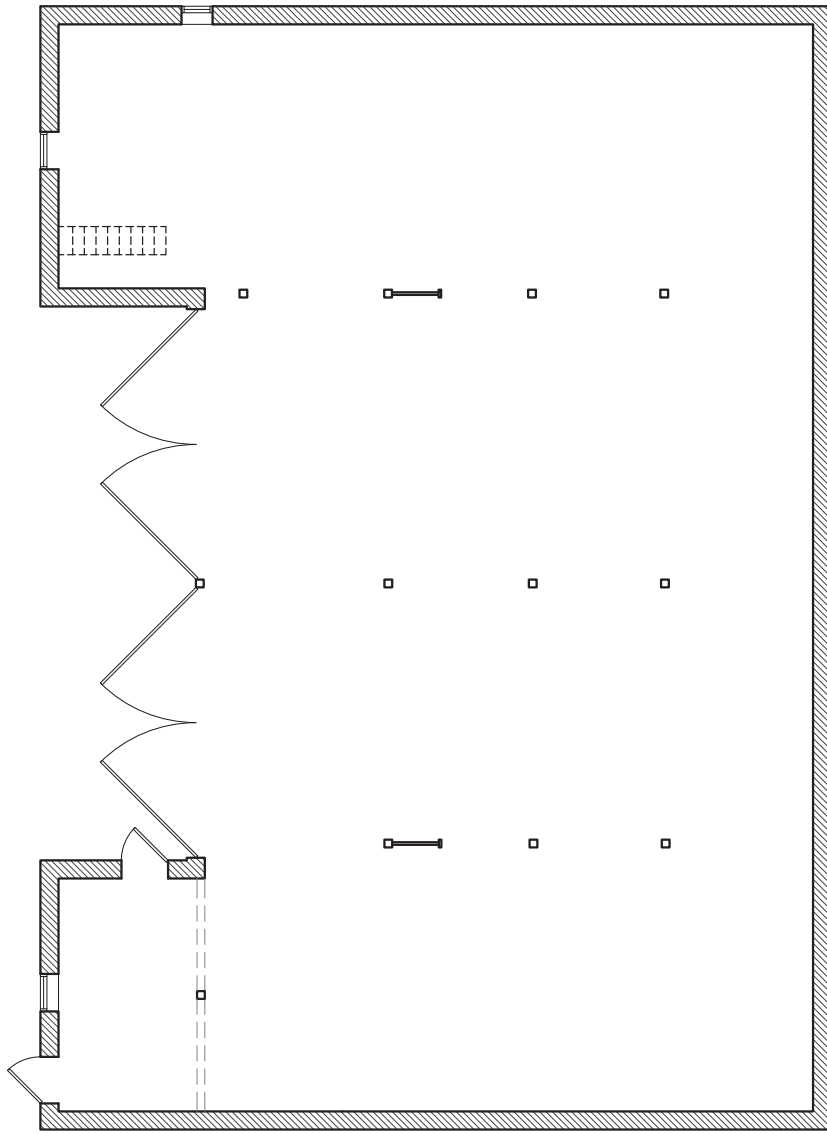
**GARAGE FIRST AND SECOND FLOOR**  
DETWEILER PARK



**A3.0**

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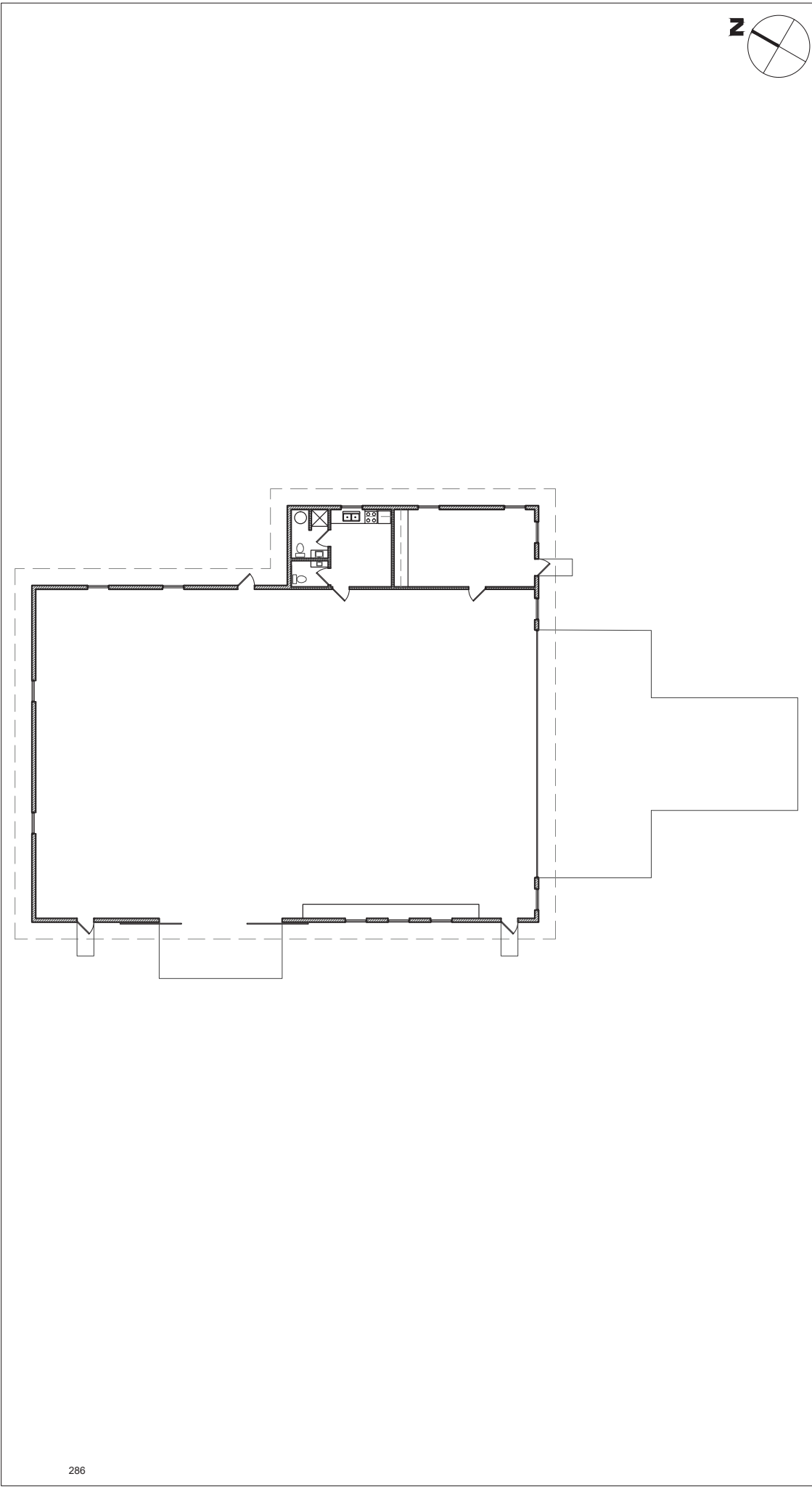
**BARN FIRST FLOOR**  
 DETWEILER PARK



A3.1

BARN SECOND FLOOR  
DETWEILER PARK





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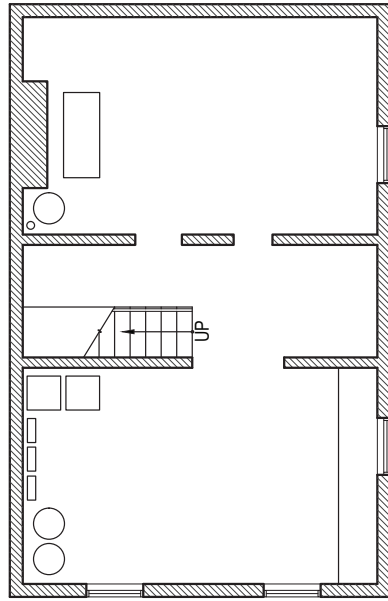


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**HANGAR**  
 DETWEILER PARK

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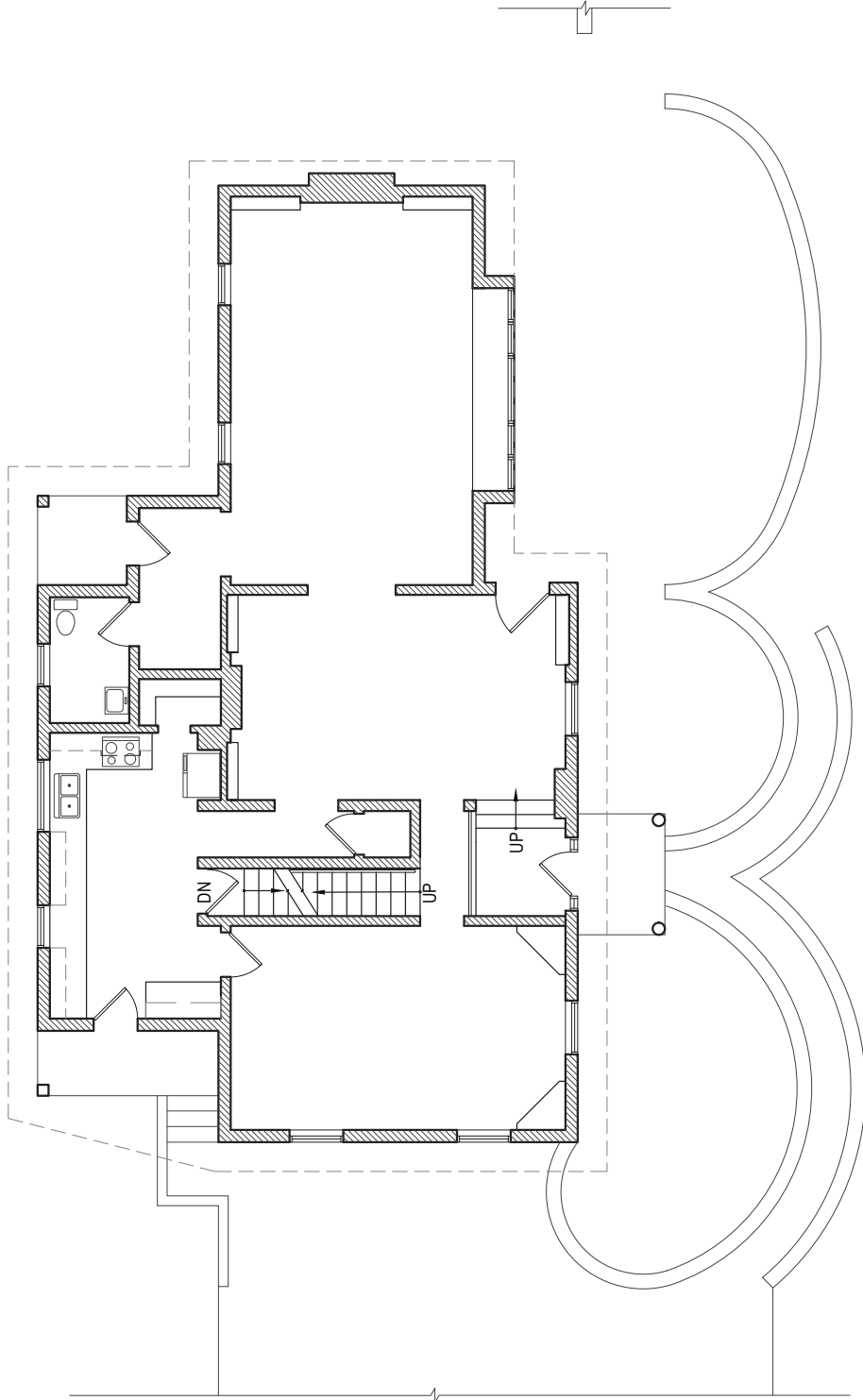
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**DETWEILER HOUSE BASEMENT**  
 DETWEILER PARK

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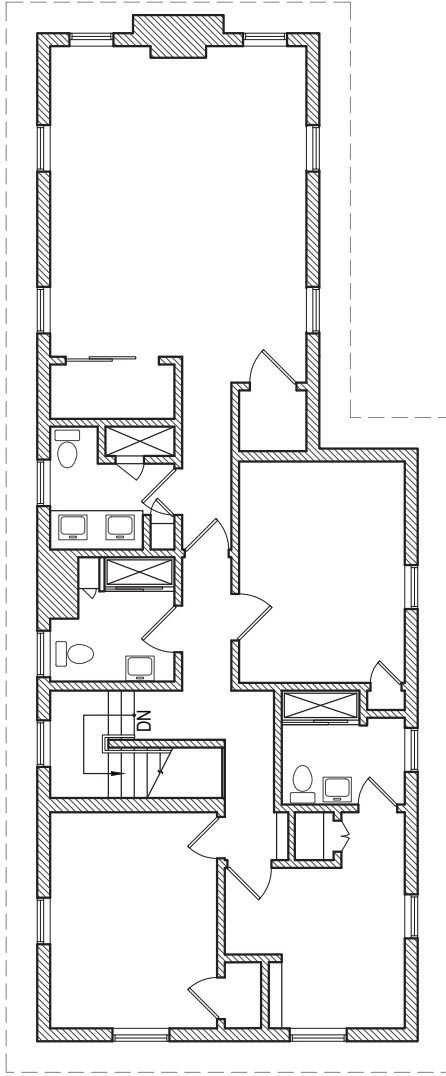
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**DETWEILER HOUSE FIRST FLOOR**  
DETWEILER PARK

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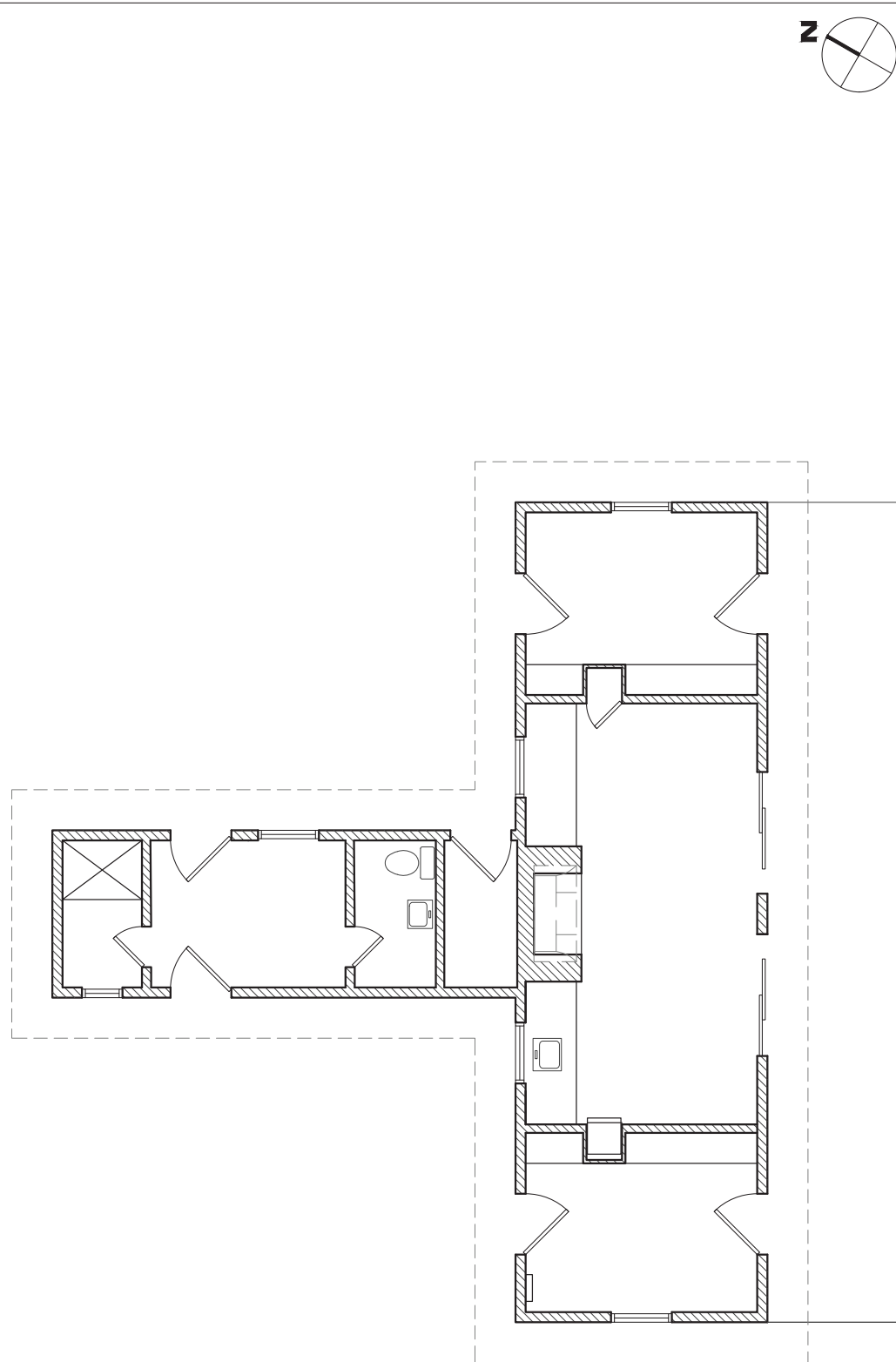
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A5.2

DETWEILER HOUSE SECOND FLOOR  
DETWEILER PARK



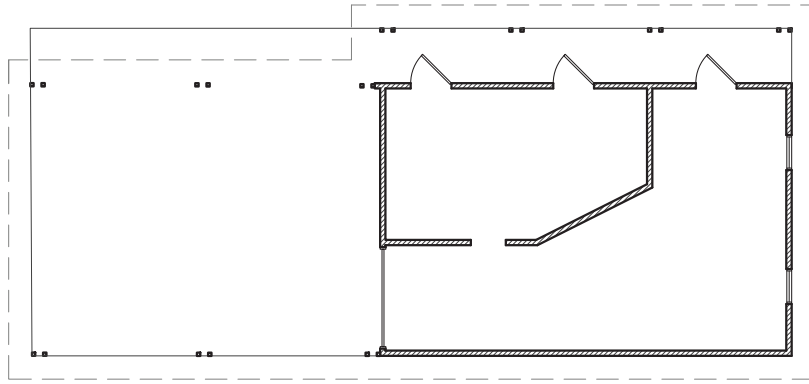
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**POOL HOUSE**  
DETWEILER PARK

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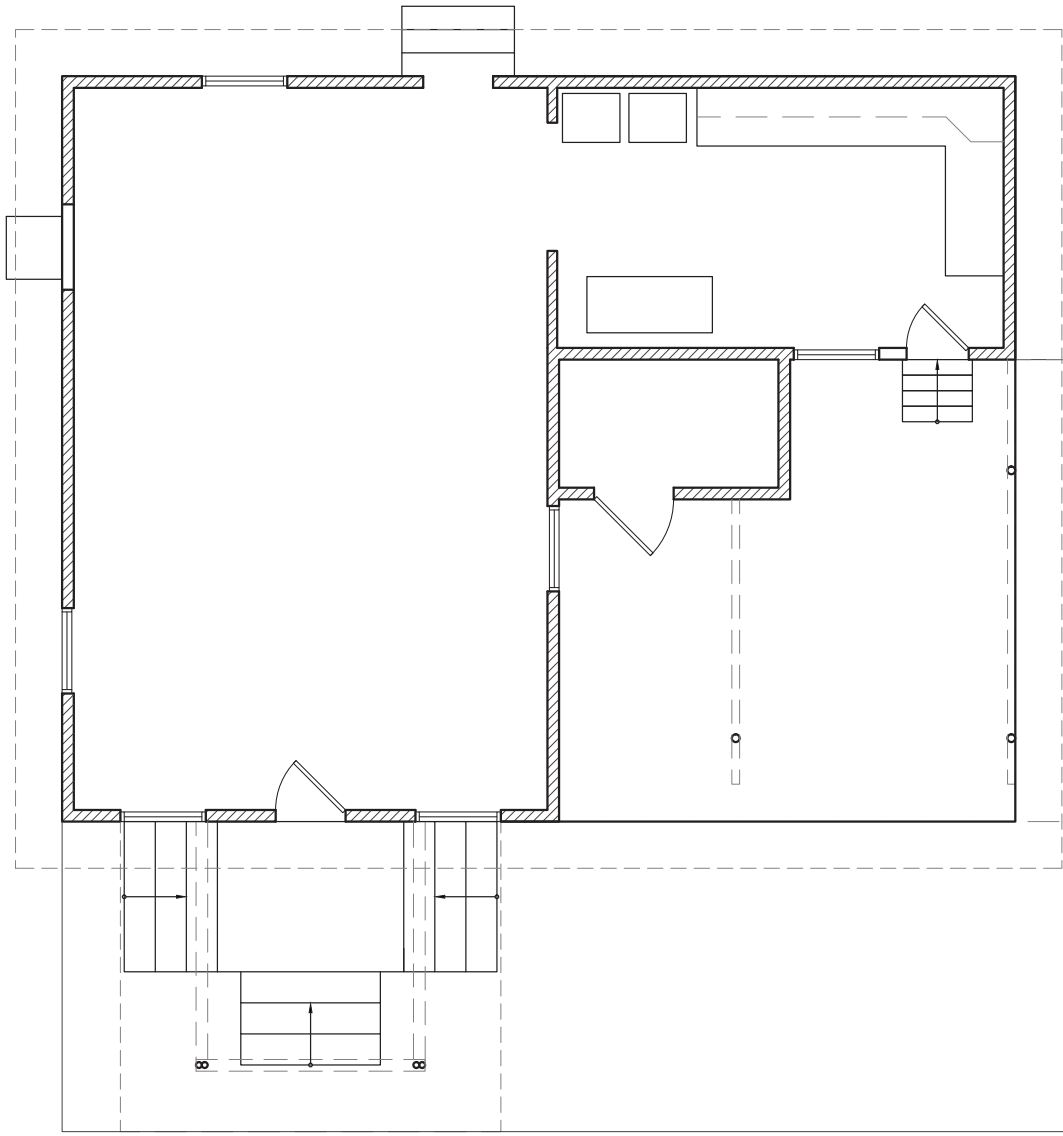
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**STABLES**  
DETWEILER PARK

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FISH HATCHERY  
 DETWEILER PARK

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# PROJECT REVIEW FORM

## Request to Initiate SHPO Consultation on State and Federal Undertakings

<b>SHPO USE ONLY</b>	Reviewers: <u>ED</u> / _____
DATE RECEIVED: <u>11/6/20</u>	DATE DUE: <u>12/5/20</u>
ER NUMBER: <u>2021-0344-043-A</u>	HRSF: <input type="checkbox"/>

REV: 07/2020

**SECTION A: PROJECT NAME & LOCATION**
 Is this a new submittal?  YES  NO OR  This is additional information for ER Number:

 Project Name Detweiler Park Master Plan County Dauphin Municipality Middle Paxton Township  
 Project Address 1451 Peters Mountain Road City/State/ Zip Dauphin PA 17018
**SECTION B: CONTACT INFORMATION & MAILING ADDRESS**
 Name Doug Seiler Phone (610) 272-4809  
 Company Seiler + Drury Architecture Fax (610) 272-4148  
 Street/PO Box 420 Dekalb Street Email dseiler@sdarc.com  
 City/State/Zip Norristown PA 19401 Email cc: sleeper@simonecollins.com
**SECTION C: PROJECT DESCRIPTION**
 This project is located on:  Federal property  State property  Municipal property  Private property  
 (check all that apply)

List all federal and state agencies and programs providing funds, permits, licenses.	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)
		State	DCNR Community Conservation Partnerships

**Proposed Work – Attach project description, scope of work, site plans, and/or drawings**
 Project includes (check all that apply):  Construction  Demolition  Rehabilitation  Disposition

 Total acres of project area: \_\_\_\_\_ Total acres of earth disturbance: none

 Are there any buildings or structures within the project area?  Yes  No Approximate age of buildings: 1861 to 1985

 Does this project involve properties listed in or eligible for the National Register of Historic Places, or locally designated? Inventory here: <https://gis.penndot.gov/crgis>  
 Yes  No  Unsure  Name \_\_\_\_\_  
 Key Number \_\_\_\_\_

**Please email this form  
and pdf attachments to:  
[RA-PH-PASHPO-ER@pa.gov](mailto:RA-PH-PASHPO-ER@pa.gov)**

Please be sure to save the Project Review Form so that it remains a digital document and retains its function as a fillable pdf. Do not print the form and scan as a pdf.

**Attachments – Please include the following information with this form**

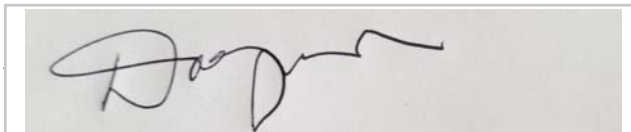
- Map** – 7.5' USGS quad, streetmap, or parcel map showing the project's Area of Potential Effect
- Description/Scope of Work** – Narrative description of the project, including any ground disturbance and previous land use, and any potential to impact historic resources
- Site Plans/Drawings** – Indicate location and age of buildings, any proposed improvements, and past and present land use
- Photographs** – Digital photographs of all buildings and structures keyed to a site plan. If demolition or exterior changes are proposed to buildings more than 50 years old, please also include Abbreviated HRSF

**SHPO RESPONSE (SHPO USE ONLY)**
 There are **NO HISTORIC PROPERTIES** in the Area of Potential Effect  **SHPO REQUESTS ADDITIONAL INFORMATION** (see attached)

 The project will have **NO EFFECT** on historic properties

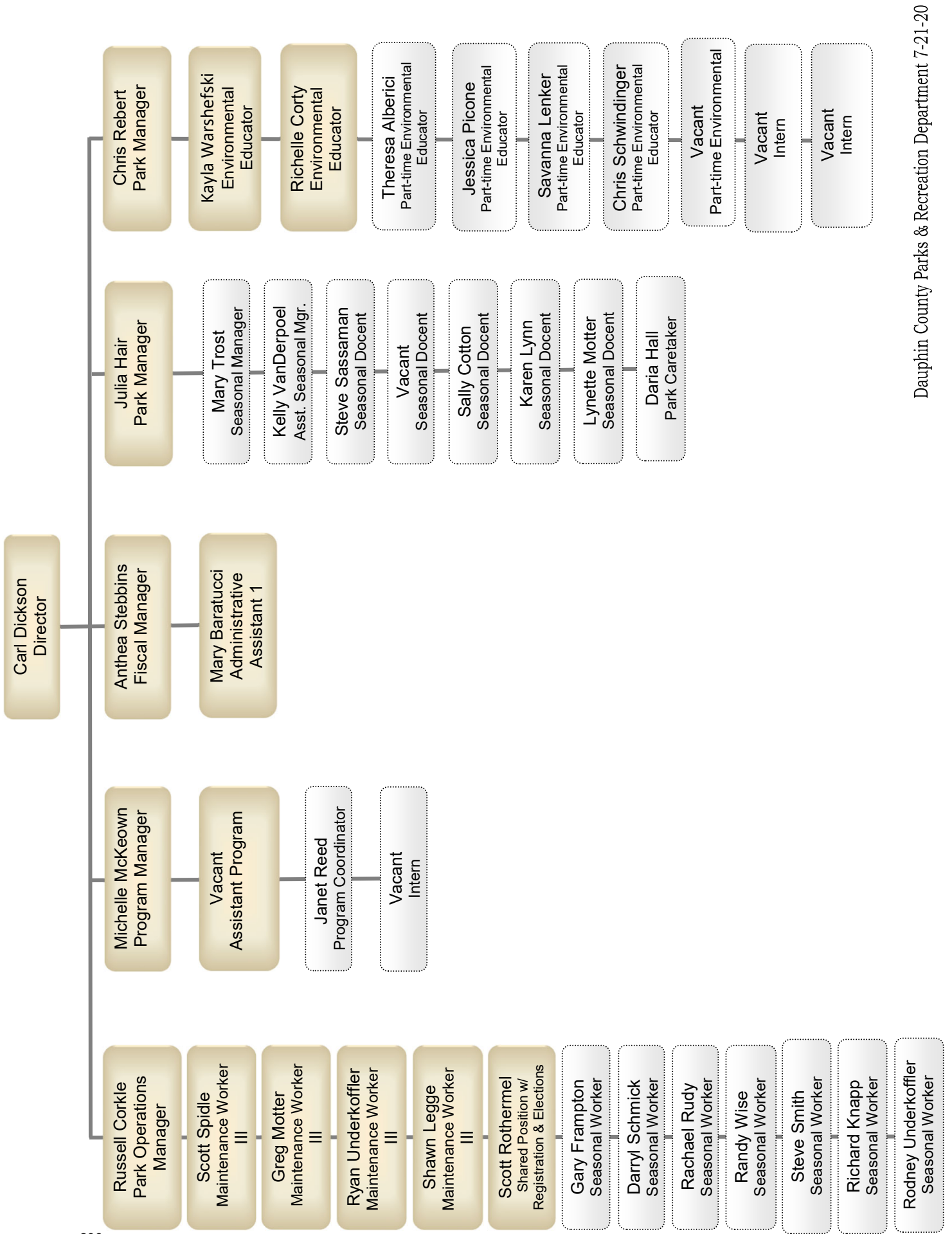
 The project will have **NO ADVERSE EFFECTS** on historic properties: \_\_\_\_\_ Key# \_\_\_\_\_

DIVISION CHIEF, ENVIRONMENTAL REVIEW:


DATE: 12/4/20SHPO REVIEWER: ed



# Dauphin County Parks & Recreation Organizational Chart



**Detweiler Park Probable Cost  
of  
Development**

## Conservation District Entrance

<b>Total Proposed Site Improvements</b>	<b>\$ 207,500</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 20,800</b>
<b>Mobilization (3%)</b>	<b>\$ 6,300</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 4,200</b>
<b>Construction Contingency (10%)</b>	<b>\$ 20,800</b>
<b>Total Estimated Project Costs</b>	<b>\$ 259,600</b>

Item No.	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b>Pedestrian Improvements</b>				<b>\$ 115,200</b>
1.	6' Wide Native Surface - Wetland Connection Switchback	456 LF	\$ 8.53	\$ 3,891
2.	Boardwalk - Wetland Restoration	642 SF	\$ 50.00	\$ 32,100
3.	6' Wide Asphalt - Stackpole Trail Switchback Realignment	495 LF	\$ 25.56	\$ 12,650
4.	6' Wide Stone dust - ADA Wetland Connector Trail	645 LF	\$ 13.19	\$ 8,505
5.	6' Wide Native Surface - Airfield Meadow Connector Trail Realignment	448 LF	\$ 8.53	\$ 3,823
6.	Disc Golf Loop Trail - 3' Earth Trail	3,257 LF	\$ 8.53	\$ 27,793
7.	Trail Markers	4 EA	\$ 200.00	\$ 800
8.	Disc Golf Loop Trail - 3' Earth Trail	3,257 LF	\$ 3.00	\$ 9,771
9.	Former Alignment Trail Rehabilitation - 8 Feet Wide	506 LF	\$ 31.19	\$ 15,780
<b>Site Amenities Improvements</b>				<b>\$ 44,200</b>
1.	Wetland Overlook Deck	640 SF	\$ 50.00	\$ 32,000
2.	Split Rail Fencing along Boundary	325 LF	\$ 25.00	\$ 8,125
3.	Disc Golf Course - Baskets	9 EA	\$ 450.00	\$ 4,050
<b>Planting &amp; Restoration Improvements</b>				<b>\$ 48,100</b>
2.	Disc Golf Course - Forest Restoration	1.4 AC	\$ 9,500.00	\$ 13,031
3.	Boulder Access / Stream Bank Restoration by Bridge	50 LF	\$ 700.00	\$ 35,000

## Frankie's Dogleg Meadow

<b>Total Proposed Site Improvements</b>	<b>\$ 424,800</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 42,500</b>
<b>Mobilization (3%)</b>	<b>\$ 12,800</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 8,500</b>
<b>Construction Contingency (10%)</b>	<b>\$ 42,500</b>
<b>Total Estimated Project Costs</b>	<b>\$ 531,100</b>

Item No.	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b>Demolition and Site Preparation</b>				
1.	Site Preparation / Select Tree Removal	1 LS	\$ 15,000.00	\$ 15,000
<b>Vehicular Improvements</b>				
1.	New Driveway Entrance	1,798 SF	\$ 5.00	\$ 8,989
2.	Parking Areas - Paving only	2,104 SF	\$ 5.00	\$ 10,522
3.	Precast Concrete Parking Bumpers	48 EA	\$ 125.00	\$ 6,000
4.	Parking Stall Striping (4" wide, white)	960 LF	\$ 2.00	\$ 1,920
<b>Pedestrian Improvements</b>				
1.	6' Wide Asphalt Trail - ADA Stackpole Connection	355 LF	\$ 30.59	\$ 10,858
2.	6' Wide Asphalt Walkway - ADA Detweiler House Connection	320 LF	\$ 30.59	\$ 9,788
3.	6' Wide Stonedust - ADA Core Activity Area	1,858 LF	\$ 13.19	\$ 24,501
4.	8' Wide Asphalt Stonedust - ADA Core Activity Area	385 LF	\$ 17.45	\$ 6,718
5.	12' Wide Stonedust Trails - Forest Exlosure Connection	640 LF	\$ 25.97	\$ 16,623
6.	Mowed Trails - Frankies Meadow Loop Expansion	936 LF	\$ 2.67	\$ 2,496
7.	3' Wide Native Surface - Clark Creek Forest Hiking Loop	2,070 LF	\$ 4.37	\$ 9,039
8.	Plank Boardwalk along Seasonally Wet Areas	250 SF	\$ 15.00	\$ 3,750
9.	Trail Markers	5 EA	\$ 350.00	\$ 1,750
<b>Site Amenities Improvements</b>				
1.	Conversion of Bathhouse to Restrooms	1,100 SF	\$ 100.00	\$ 110,000
2.	Playground Surface - Engineered Wood Fiber	5,500 SF	\$ 6.50	\$ 35,750
3.	Nature Base Playground Element - Allowance	1 LS	\$ 35,000.00	\$ 35,000
4.	Trash and Recycling Recepticles	4 EA	\$ 1,500.00	\$ 6,000
5.	Food Forest Pavilion / Gazebo	1 LS	\$ 15,000.00	\$ 15,000
6.	Picnic Pavilion (16x22)	1 EA	\$ 35,000.00	\$ 35,000
<b>Planting Improvements</b>				
1.	Nature Based Play Pollenator Meadow	0.21 SF	\$ 5,000.00	\$ 1,026
2.	Food Forest - Tree Planting	42 EA	\$ 450.00	\$ 18,900
3.	Tree Planting in Core Activity Area - 2 1/2-3" Caliper	32 EA	\$ 700.00	\$ 22,400
<b>Stormwater Infrastructure / Best Management Practices</b>				
1.	Stormwater Basin Allowance for Impervious Improvement (5%)	1 EA	\$ 17,495.00	\$ 17,495

## Clark's Creek Triangle

<b>Total Proposed Site Improvements</b>	<b>\$ 11,900</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 1,200</b>
<b>Mobilization (3%)</b>	<b>\$ 400</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 300</b>
<b>Construction Contingency (10%)</b>	<b>\$ 1,200</b>
<b>Total Estimated Project Costs</b>	<b>\$ 15,000</b>

Item No.	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b><i>Demolition and Site Preparation</i></b>				
1.	Remove Existing Blacktop	478 SY	\$ 5.00	\$ 2,389
<b><i>Site Amenities Improvements</i></b>				
1.	Park Entrance Signage	1 EA	\$ 5,000.00	\$ 5,000
<b><i>Stormwater Infrastructure / Best Management Practices</i></b>				
1.	Vegetated Swale	600 SF	\$ 7.50	\$ 4,500

<b>E.J. Stackpole Memorial Nursery</b>	
<b>Total Proposed Site Improvements</b>	<b>\$ 251,400</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 25,200</b>
<b>Mobilization (3%)</b>	<b>\$ 7,600</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 5,100</b>
<b>Construction Contingency (10%)</b>	<b>\$ 25,200</b>
<b>Total Estimated Project Costs</b>	<b>\$ 314,500</b>

<b>Item No.</b>	<b>Item Description</b>	<b>Estimated Quantity</b>	<b>Unit Price</b>	<b>Total Item Amount</b>
<b><i>Vehicular Improvements</i></b>				<b>\$ 700</b>
1.	Asphalt Driveway Apron	140 SY	\$ 5.00	\$ 700
<b><i>Pedestrian Improvements</i></b>				<b>\$ 51,100</b>
1.	Clarks Valley Road Crossing Crosswalk Stripping	1 LS	\$ 750.00	\$ 750
2.	Clarks Valley Road Crossing - Rapid Flashing Beacon	1 EA	\$ 15,000.00	\$ 15,000
3.	Trail Improvements -6' Wide Stonedust Trails	560 LF	\$ 13.19	\$ 7,385
4.	Boardwalk - ADA Trail	558 SF	\$ 50.00	\$ 27,900
<b><i>Site Amenities Improvements</i></b>				<b>\$ 129,800</b>
1.	Boardwalk / Fishing Pier - Main	1,630 SF	\$ 75.00	\$ 122,250
2.	Fish Hatchery Cover - Hoop House w/Shade Cloth	1,000 SF	\$ 2.50	\$ 2,500
3.	Entrance Signage	1 EA	\$ 5,000.00	\$ 5,000
<b><i>Stormwater Infrastructure / Best Management Practices</i></b>				<b>\$ 69,800</b>
1.	Vegetated Swale / Rain Gardens (4 Total)	9,300 SF	\$ 7.50	\$ 69,750

<b>Forest Exclosure Area</b>				
<b>Total Proposed Site Improvements</b>			<b>\$ 337,900</b>	
<b>Design &amp; Engineering (10%)</b>			<b>\$ 33,800</b>	
<b>Mobilization (3%)</b>			<b>\$ 10,200</b>	
<b>Erosion and Sedimentation Control (2%)</b>			<b>\$ 6,800</b>	
<b>Construction Contingency (10%)</b>			<b>\$ 33,800</b>	
<b>Total Estimated Project Costs</b>			<b>\$ 422,500</b>	
<b>Item No.</b>	<b>Item Description</b>	<b>Estimated Quantity</b>	<b>Unit Price</b>	<b>Total Item Amount</b>
<b><i>Pedestrian Improvements</i></b>				<b>\$ 277,900</b>
1.	12' Wide Stonedust - ADA Forest Loop Shared Use Trail	5,247 LF	\$ 25.97	\$ 136,282
2.	6' Wide Stonedust - ADA Meadow Restoration Walk	1,435 LF	\$ 13.19	\$ 18,923
3.	6' Wide Stonedust - ADA Woodland Restoration Walk	845 LF	\$ 13.19	\$ 11,143
4.	6' Wide Stonedust - ADA Secret Meadow Walk	295 LF	\$ 13.19	\$ 3,890
5.	Trail Markers	6 EA	\$ 350.00	\$ 2,100
6.	3' Wide Native Surface - Hiking Trail to Bailey's Grove	1,070 LF	\$ 4.37	\$ 4,672
7.	Former Alignment Trail Rehabilitaiton - 8 Feet Wide	3,233 LF	\$ 31.19	\$ 100,824
<b><i>Site Amenities Improvements</i></b>				<b>\$ 60,000</b>
1.	Secret Meadow Overlook Deck	400 SF	\$ 40.00	\$ 16,000
2.	Riparian Forest Overlook	400 SF	\$ 80.00	\$ 32,000
3.	Benches along Forest Loop Shared Use Trail(1 per 600LF)	8 EA	\$ 1,500.00	\$ 12,000



## David's Meadow & Streamside ADA Trail

<b>Total Proposed Site Improvements</b>	<b>\$ 433,100</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 43,400</b>
<b>Mobilization (3%)</b>	<b>\$ 13,000</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 8,700</b>
<b>Construction Contingency (10%)</b>	<b>\$ 43,400</b>
<b>Total Estimated Project Costs</b>	<b>\$ 541,600</b>

Item No.	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b>Pedestrian Improvements</b>				<b>\$ 407,100</b>
1.	Mowed - Meadow Loop Trail	4,200 LF	\$ 2.67	\$ 11,200
2.	6' Wide Stonedust Trail- ADA Forest Exclosure Connector Trail	931 LF	\$ 13.19	\$ 12,277
3.	5' Wide Asphalt - ADA Streamside Loop Trail	4,091 LF	\$ 25.56	\$ 104,548
4.	6' Wide Native Surface - Meade's Mt Connector Trail	890 LF	\$ 8.53	\$ 7,595
5.	Boardwalk - Meade's Mt Connector Trail	498 SF	\$ 50.00	\$ 24,900
6.	8' Clear Foot Bridge - Stream Crossing	400 SF	\$ 75.00	\$ 30,000
7.	Wetland Boardwalk -6' Wide	2,490 SF	\$ 75.00	\$ 186,750
8.	Former Alignment Trail Rehabilitaiton - 8 Feet Wide	955 LF	\$ 31.19	\$ 29,783
<b>Site Amenities Improvements</b>				<b>\$ 26,000</b>
1.	Meadow Overlook - Deck	400 SF	\$ 50.00	\$ 20,000
2.	Benches along Streamside Loop Trail	4 EA	\$ 1,500.00	\$ 6,000

## Meade's Mountain

<b>Total Proposed Site Improvements</b>	<b>\$ 165,900</b>
<b>Design &amp; Engineering (10%)</b>	<b>\$ 16,600</b>
<b>Mobilization (3%)</b>	<b>\$ 5,000</b>
<b>Erosion and Sedimentation Control (2%)</b>	<b>\$ 3,400</b>
<b>Construction Contingency (10%)</b>	<b>\$ 16,600</b>
<b>Total Estimated Project Costs</b>	<b>\$ 207,500</b>

Item No.	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b><i>Pedestrian Improvements</i></b>				<b>\$ 165,100</b>
1.	6' Wide Native Surface - Mead's Mtn Shared Use Trail Realignment	3,280 LF	\$ 8.53	\$ 27,989
2.	3' Clear Single Track MTB Trail - Mtn Top Skills Trails	1,260 LF	\$ 11.31	\$ 14,252
2.	3' Clear Single Track MTB Trail - EastSkills Trails	2,474 LF	\$ 12.00	\$ 29,688
3.	3' Wide Native Surface - AT Trail Hiking Trail	710 LF	\$ 4.37	\$ 3,100
4.	6' Wide Native Surface - David's Meadow Connector Shared Use Trail	300 LF	\$ 8.53	\$ 2,560
5.	Boardwalks - Stream Crossings (2)	420 SF	\$ 50.00	\$ 21,000
6.	Plank Boardwalk along Seasonally Wet Areas	800 SF	\$ 15.00	\$ 12,000
7.	Trail Markers	6 EA	\$ 350.00	\$ 2,100
8.	Former Alignment Trail Rehabilitaiton - 8 Feet Wide	1,680 LF	\$ 31.19	\$ 52,392
<b><i>Site Amenities Improvements</i></b>				<b>\$ 800</b>
1.	Log Benches / Boulder Seating	4 EA	\$ 200.00	\$ 800

<b>Airfield Meadow</b>				
<b>Total Proposed Site Improvements</b>				<b>\$ 1,559,500</b>
<b>Design &amp; Engineering (10%)</b>				<b>\$ 156,000</b>
<b>Mobilization (3%)</b>				<b>\$ 46,800</b>
<b>Erosion and Sedimentation Control (2%)</b>				<b>\$ 31,200</b>
<b>Construction Contingency (10%)</b>				<b>\$ 156,000</b>
<b>Total Estimated Project Costs</b>				<b>\$ 1,949,500</b>
<b>Item No.</b>	<b>Item Description</b>	<b>Estimated Quantity</b>	<b>Unit Price</b>	<b>Total Item Amount</b>
<b>Demolition and Site Preparation</b>				<b>\$ 230,000</b>
1.	Site Preparation / Bulk Grading Core Activity Area	1 LS	\$ 230,000.00	\$ 230,000
<b>Vehicular Improvements</b>				<b>\$ 110,500</b>
1.	Peters Mountain Intersection Improvements	1 LS	\$ 32,436.60	\$ 32,437
2.	New Driveway Entrance - Asphalt Pavement	304 SY	\$ 45.00	\$ 13,700
3.	Dropoff Loop - Asphalt Pavement	133 SY	\$ 45.00	\$ 6,000
4.	Parking Area - Asphalt Pavement	734 SY	\$ 45.00	\$ 33,033
5.	Precast Concrete Parking Bumpers	64 EA	\$ 125.00	\$ 8,000
6.	Handicap Symbols	5 EA	\$ 60.00	\$ 300
7.	Handicap Parking Sign	5 EA	\$ 285.00	\$ 1,425
8.	Handicap Stall Striping (4" wide, blue)	190 LF	\$ 2.00	\$ 380
9.	Parking Stall Striping (4" wide, white)	1,180 LF	\$ 2.00	\$ 2,360
10.	Overflow Parking with Low Mow Meadow Mix	22 LB	\$ 350.00	\$ 7,829
11.	Entrance Sign	1 LS	\$ 5,000.00	\$ 5,000
<b>Pedestrian Improvements</b>				<b>\$ 520,200</b>
1.	8' Wide Asphalt Walkways - ADA Core Activity Area	1,334 LF	\$ 40.65	\$ 54,226
2.	5' Wide Asphalt Walkways - ADA Core Activity Area	908 LF	\$ 25.56	\$ 23,204
3.	6' Wide Asphalt - ADA Meadow Loop Trail	7,481 LF	\$ 30.59	\$ 228,819
4.	5' Wide Asphalt - ADA Connection to HAFS Area	937 LF	\$ 25.56	\$ 23,946
5.	3' Clear Single Track MTB Trail - Meade's Mt Connector Trail	2,151 LF	\$ 11.31	\$ 24,330
6.	5' Wide Asphalt - ADA Streamside Loop Connector Trail	277 LF	\$ 25.56	\$ 7,079
7.	Wetland Boardwalk -8' Wide	2,536 SF	\$ 50.00	\$ 126,800
8.	8' Clear Foot Bridge - Stream Crossing	400 SF	\$ 75.00	\$ 30,000
9.	Trail Markers	5 EA	\$ 350.00	\$ 1,750
<b>Site Amenities Improvements</b>				<b>\$ 571,600</b>
1.	Restroom Pavilion - Composting Toilet	1 EA	\$ 110,383.99	\$ 110,384
2.	Picnic Pavilions (16x22)	2 EA	\$ 36,000.00	\$ 72,000
3.	Lookout Pavilion (16X16)	1 EA	\$ 25,000.00	\$ 25,000
4.	Meadow Lookout	1 EA	\$ 20,000.00	\$ 20,000
5.	Central Lawn Area	22 MSF	\$ 390.00	\$ 8,621
6.	Benches (1 per 300LF) - Meadow Walk & Core Activity Area	27 EA	\$ 1,500.00	\$ 39,810
7.	Litter and Recycling Receptacles - Restrooms & Picnic Pavilions	6 EA	\$ 1,200.00	\$ 7,200
8.	Playground Surface - Engineered Wood Fiber	5,000 SF	\$ 6.50	\$ 32,500
9.	Playground Equipment - Destination Wood Structure Theme	1 LS	\$ 250,000.00	\$ 250,000
10.	Primitive Camping Site Pad 18'x18'	3 EA	\$ 2,000.00	\$ 6,000
<b>Stormwater Infrastructure / Best Management Practices</b>				<b>\$ 60,200</b>
1.	Stormwater Basin Allowance for Impervious Improvement (5%)	1 EA	\$ 60,115.00	\$ 60,115

<b>Utility Improvements</b>				<b>\$ 39,000</b>
1.	Waterline	300 LF	\$ 66.00	\$ 19,800
2.	Underground Electric	300 LF	\$ 64.00	\$ 19,200
<b>Planting Improvements</b>				<b>\$ 28,000</b>
1.	Tree Planting in Core Activity Area - 2 1/2-3" Caliper	40 EA	\$ 700.00	\$ 28,000

## Estimated Costs of Development Summary

<b>Conservation District Entrance</b>	<b>\$ 259,600</b>
Total Proposed Site Improvements	\$ 207,500
Design and Engineering	\$ 20,800
Construction Cost Total	\$ 31,300
<b>Frankie's Dogleg Meadow</b>	<b>\$ 531,100</b>
Total Proposed Site Improvements	\$ 424,800
Design and Engineering	\$ 42,500
Construction Cost Total	\$ 63,800
<b>Clark's Creek Triangle</b>	<b>\$ 15,000</b>
Total Proposed Site Improvements	\$ 11,900
Design and Engineering	\$ 1,200
Construction Cost Total	\$ 1,900
<b>E.J. Stackpole Memorial Nursery</b>	<b>\$ 314,500</b>
Total Proposed Site Improvements	\$ 251,400
Design and Engineering	\$ 25,200
Construction Cost Total	\$ 37,900
<b>Forest Enclosure Area</b>	<b>\$ 422,500</b>
Total Proposed Site Improvements	\$ 337,900
Design and Engineering	\$ 33,800
Construction Cost Total	\$ 50,800
<b>David's Meadow &amp; Streamside ADA Trail</b>	<b>\$ 541,600</b>
Total Proposed Site Improvements	\$ 433,100
Design and Engineering	\$ 43,400
Construction Cost Total	\$ 65,100
<b>Meade's Mountain</b>	<b>\$ 207,500</b>
Total Proposed Site Improvements	\$ 165,900
Design and Engineering	\$ 16,600
Construction Cost Total	\$ 25,000
<b>Airfield Meadow</b>	<b>\$ 1,949,500</b>
Total Proposed Site Improvements	\$ 1,559,500
Design and Engineering	\$ 156,000
Construction Cost Total	\$ 234,000
<b>Park Wide Improvements Total:</b>	<b>\$ 4,241,300</b>
Total Proposed Site Improvements	\$ 3,392,000
Design and Engineering	\$ 339,500
Construction Cost Total	\$ 509,800

\*Construction Cost Include are estimated as a percentage of the total improvement cost.

They include: Mobilization 3%, Erosion & Sedimentation Control 2%, and Construction Contingency 10%

## Phasing Summary

<b>Phase 1 - Frankies Dogleg Meadow Access Improvments</b>	<b>\$ 463,000</b>
<b>Phase 2 - Forest Restoration Trail Improvements</b>	<b>\$ 422,500</b>
<b>Phase 3 - Airfield Meadow Access and Trail</b>	<b>\$ 909,200</b>
<b>Phase 4 - Airfield Core Activity Area</b>	<b>\$ 558,200</b>
<b>Phase 5 - David's Meadow &amp; Streamside ADA Trail</b>	<b>\$ 533,600</b>
<b>Phase 6 - Airfield Playground</b>	<b>\$ 398,300</b>
<b>Phase 7 - Meade's Moutian Trails</b>	<b>\$ 293,000</b>
<b>Phase 8 - Coservation District Trail Improvements &amp; Food</b>	<b>\$ 335,500</b>
<b>Phase 9 - E.J. Stackpole Memorial Nursery</b>	<b>\$ 295,700</b>

<b>Unit Cost Backup</b>				
<b>Peter Mountain Road Intersection</b>		<b>4,140 SF</b>	<b>Sub Total</b>	
	Decel Lane 9 -12' wide - 225 long	2,700 SF		
	Turnign Lane	1,440 SF		
	Embankment Grading / cut on steep slope	125.00 CY	\$ 60.00	\$ 7,500.00
a.	Excavation	153.33 CY	\$ 45.00	\$ 6,900.00
b.	Grade Subbase	460 SY	\$ 1.18	\$ 542.80
c.	PADOT 2A Aggregate Subbase - 6" depth	76.67 CY	\$ 45.00	\$ 3,450.00
d.	Grade and Compact Aggregate Subbase	460 SY	\$ 0.93	\$ 427.80
e.	Asphalt Base Course - 4" depth	460 SY	\$ 18.50	\$ 8,510.00
	1.5" Wearing Course	460 SY	\$8.10	\$3,726
	Lane stripign includes sholders	1380 LF	\$ 1.00	\$ 1,380.00
			Total	\$ 32,436.60
			<b>Round LS</b>	<b>\$ 33,000.00</b>

<b>Driveway pavement</b>		<b>1 SF</b>		
a.	Excavation	0.037 CY	\$ 45.00	\$ 1.67
b.	Grade Subbase	0.111 SY	\$ 1.18	\$ 0.13
c.	PADOT 2A Aggregate Subbase - 6" depth	0.019 CY	\$ 45.00	\$ 0.83
e.	Asphalt Base Course - 4" depth	0.111 SY	\$ 18.50	\$ 2.06
			Total	\$ 4.69
			<b>Cost / SF</b>	<b>\$ 5.00</b>
			<b>Cost / SY</b>	<b>\$ 45.00</b>
			<b>Cost / SY</b>	<b>\$ 45.00</b>

<b>Mown Trail - 6' wide 1' shoulder</b>		<b>1 LF</b>	<b>Sub Total</b>	
b.	Grade crosslope - 2 inch average	0.89 SY	\$ 3.00	\$ 2.67
	seed and stabilize - trail	0.00 SF	\$ 0.25	\$ -
			Total	\$ 2.67
			<b>Cost / LF</b>	<b>\$ 3.00</b>
			<b>Cost / SY</b>	<b>\$ 3.00</b>

<b>Native Hiking Trail - 3' wide 1' shoulder</b>		<b>1 LF</b>	<b>Sub Total</b>	
a.	grub and clear trail	0.33 SY	\$ 5.00	\$ 1.67
b.	Hand Grade trail	0.33 SY	\$5.00	\$2
c.	2" native Soil surface	0.02 CY	\$45.00	\$1
	seed and stabilize - 1 foot shoulders both sides	2.00 SF	\$ 0.10	\$ 0.20
			Total	\$ 4.37
			<b>Cost / LF</b>	<b>\$ 5.00</b>
			<b>Cost / SY</b>	<b>\$ 13.10</b>

<b>Native Hiking Trail - 6' wide 2' shoulder</b>		<b>1 LF</b>	<b>Sub Total</b>	
a.	grub and clear trail	0.67 SY	\$ 5.00	\$ 3.33
b.	Hand Grade trail	0.67 SY	\$5.00	\$3
c.	2" native Soil surface	0.04 CY	\$45.00	\$2
	seed and stabilize - 1 foot shoulders both sides	2.00 SF	\$ 0.10	\$ 0.20
			Total	\$ 8.53
			<b>Cost / LF</b>	<b>\$ 9.00</b>
			<b>Cost / SY</b>	<b>\$ 12.80</b>

<b>Native Mt. Bike Trail - 1' wide 1' shoulder</b>		<b>1 LF</b>	<b>Sub Total</b>	
a.	Hand Excavation - 4 inch depth	0.13 CY	\$ 60.00	\$ 7.78
b.	Hand Grade Subgrade	0.33 SY	\$5.00	\$2
c.	4" native Soil Subbase	0.04 CY	\$45.00	\$2
	seed and stabilize - 1 foot shoulders both sides	2.00 SF	\$ 0.10	\$ 0.20
			Total	\$ 11.31
			<b>Cost / LF</b>	<b>\$ 12.00</b>
			<b>Cost / SY</b>	<b>\$ 33.93</b>

<b>Stone Dust - 6 Feet Wide</b>		<b>1.00 LF</b>		
a.	Excavation - 6 inch depth	0.11 CY	\$ 45.00	\$ 5.00
b.	Grade Subbase - 6 inch depth	0.67 SY	\$ 1.18	\$ 0.79
c.	4" PADOT 2A Aggregate Subbase	0.07 CY	\$ 45.00	\$ 3.33
d.	Goetextile	0.67 SY	\$ 3.00	\$ 2.00
e.	Stone dust - 2 inch depth	0.04 CY	\$ 45.00	\$ 1.67
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 13.19
			<b>Cost / LF</b>	<b>\$ 14.00</b>
			<b>Cost / SY</b>	<b>\$ 7.78</b>

<b>Stone Dust -8Feet Wide</b>		<b>1.00 LF</b>		
a.	Excavation - 6 inch depth	0.15 CY	\$ 45.00	\$ 6.67
b.	Grade Subbase - 6 inch depth	0.89 SY	\$ 1.18	\$ 1.05
c.	4" PADOT 2A Aggregate Subbase	0.10 CY	\$ 45.00	\$ 4.44
d.	Goetextile	0.89 SY	\$ 3.00	\$ 2.67
e.	Stone dust - 2 inch depth	0.05 CY	\$ 45.00	\$ 2.22
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 17.45
			<b>Cost / LF</b>	<b>\$ 18.00</b>
			<b>Cost / SY</b>	<b>\$ 19.63</b>

<b>Stone Dust - 12 Feet Wide</b>		<b>1.00 LF</b>		
a.	Excavation - 6 inch depth	0.22 CY	\$ 45.00	\$ 10.00
b.	Grade Subbase - 6 inch depth	1.33 SY	\$ 1.18	\$ 1.57
c.	4" PADOT 2A Aggregate Subbase	0.15 CY	\$ 45.00	\$ 6.67
d.	Goetextile	1.33 SY	\$ 3.00	\$ 4.00
e.	Stone dust - 2 inch depth	0.07 CY	\$ 45.00	\$ 3.33
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 25.97
			<b>Cost / LF</b>	<b>\$ 26.00</b>
			<b>Cost / SY</b>	<b>\$ 19.48</b>

<b>Asphalt Walkways 5</b>		<b>1.00 LF</b>	<b>Sub Total</b>	
a.	Excavation - 10 inch depth	0.15 CY	\$ 45.00	\$ 6.94
	Grade Subgrade	0.56 SY	\$1.18	\$1
	6" PADOT 2A Aggregate Subbase	0.09 CY	\$45.00	\$4
	2.5" Asphalt Base Course	0.56 SY	\$16.00	\$9
	1.5" Wearing Course	0.56 SY	\$8.10	\$5
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 25.56



<b>Cost / LF</b>	<b>\$</b>	<b>26.00</b>
<b>Cost / SY</b>	<b>\$</b>	<b>46.00</b>

<b>Asphalt Walkways 6'</b>		<b>1.00 SF</b>	<b>Sub Total</b>	
a.	Excavation - 10 inch depth	0.19 CY	\$ 45.00	\$ 8.33
	Grade Subgrade	0.67 SY	\$1.18	\$1
	6" PADOT 2A Aggregate Subbase	0.11 CY	\$45.00	\$5
	2.5" Asphalt Base Course	0.67 SY	\$16.00	\$11
	1.5" Wearing Course	0.67 SY	\$8.10	\$5
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 30.59
			<b>Cost / LF</b>	<b>\$ 31.00</b>
			<b>Cost / SY</b>	<b>\$ 45.88</b>

<b>Asphalt Walkways 8' per linear foot</b>		<b>1.00 SF</b>	<b>Sub Total</b>	
a.	Excavation - 10 inch depth	0.25 CY	\$ 45.00	\$ 11.11
	Grade Subgrade	0.89 SY	\$1.18	\$1
	6" PADOT 2A Aggregate Subbase	0.15 CY	\$45.00	\$7
	2.5" Asphalt Base Course	0.89 SY	\$16.00	\$14
	1.5" Wearing Course	0.89 SY	\$8.10	\$7
f.	seed and stabilize - 2 foot shoulders both sides	4.00 SF	\$ 0.10	\$ 0.40
			Total	\$ 40.65
			<b>Cost / LF</b>	<b>\$ 41.00</b>
			<b>Cost / SY</b>	<b>\$ 45.73</b>

<b>Former Alignment Trail Rehabilitaiton - 8 Feet Wide</b>		<b>1.00 LF</b>			<b>8</b>
b.	Grade Subbase	0.89 SY	\$ 1.18	\$ 1.05	
a.	Soil Admements - 6 inch depth	0.15 CY	\$ 45.00	\$ 6.67	
b.	Plugs	8.00 SF	\$ 2.50	\$ 20.00	
	Mulch - 3" leaf litter	0.07 SY	\$ 45.00	\$ 3.33	
b.	Jute stabilizaton mat	0.07 SY	\$ 1.85	\$ 0.14	
			Total	\$ 31.19	
			<b>Cost / LF</b>	<b>\$ 32.00</b>	
			<b>Cost / SY</b>	<b>\$ 4.74</b>	

## Stewardship Cost

Year	1	\$	671,200
Year	2	\$	610,500
Year	3	\$	169,600
Year	4	\$	197,500
Year	5	\$	69,200
Year	6	\$	889,200
Year	7	\$	432,100
Year	8	\$	418,100
Year	9	\$	26,100
Year	10	\$	39,700
<b>Total Est</b>			<b>\$ 3,523,200</b>

Year	Item Description	Estimated Quantity	Unit Price	Total Item Amount
<b>Forestry Management Unit 1 Stewardship</b>		<b>5.80 AC</b>		<b>\$ 44,400</b>
1	Targeted Invasive Removal*	6 AC	\$ 1,000	\$ 5,800
1	Restoration Forest Shade Meadow Mix (after first invasive removal)	6 AC	\$ 1,500	\$ 8,700
2	Targeted Invasive Removal*	6 AC	\$ 1,000	\$ 5,800
3	Targeted Invasive Removal*	6 AC	\$ 750	\$ 4,350
4	Targeted Invasive Removal*	6 AC	\$ 500	\$ 2,900
5	Targeted Invasive Removal*	6 AC	\$ 500	\$ 2,900
6	Restoration Forest Shade Meadow Mix (after timber harvest)	1 AC	\$ 3,500	\$ 3,500
6	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
9	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
<b>Forestry Management Unit 2 Stewardship</b>		<b>8.02 AC</b>		<b>\$ 99,600</b>
1	Targeted Invasive Removal*	8 AC	\$ 2,000	\$ 16,040
1	Restoration Forest Shade Meadow Mix (after first invasive removal)	8 AC	\$ 3,500	\$ 28,070
2	Targeted Invasive Removal*	8 AC	\$ 1,000	\$ 8,020
3	Targeted Invasive Removal*	8 AC	\$ 750	\$ 6,015
4	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
5	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
6	Tree Harvest Light thinning, Timber Stand Improvement Year 6	8 AC	\$ 700	\$ 5,614
6	Restoration Forest Shade Meadow Mix (after timber harvest in open areas)	2 AC	\$ 3,500	\$ 7,000
7	Restoration Understory & Tree Planting in Shelters	2 AC	\$ 5,202	\$ 10,404
9	Restoration Understory & Tree Planting in Shelters	2 AC	\$ 5,202	\$ 10,404

<b>Forestry Management Unit 3 Stewardship</b>		<b>19.97 AC</b>		<b>\$ 124,100</b>
1	Targeted Invasive Removal*	20 AC	\$ 1,000	\$ 19,970
1	Planting Native Shrubs and Trees in Clusters	500 UN	\$ 60	\$ 30,000
2	Targeted Invasive Removal*	20 AC	\$ 1,000	\$ 19,970
3	Targeted Invasive Removal*	20 AC	\$ 750	\$ 14,978
4	Targeted Invasive Removal*	20 AC	\$ 500	\$ 9,985
5	Targeted Invasive Removal*	20 AC	\$ 500	\$ 9,985
6	Tree Harvest Light thinning, Timber Stand Improvement	20 AC	\$ 700	\$ 13,979
7	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
<b>Forestry Management Unit 3a Stewardship</b>		<b>0.60 AC</b>		<b>\$ 2,000</b>
1	Targeted Invasive Removal*	1 AC	\$ 1,000	\$ 600
2	Targeted Invasive Removal*	1 AC	\$ 750	\$ 450
3	Targeted Invasive Removal*	1 AC	\$ 500	\$ 300
4	Targeted Invasive Removal*	1 AC	\$ 500	\$ 300
5	Targeted Invasive Removal*	1 AC	\$ 500	\$ 300
<b>Forestry Management Unit 4 Stewardship</b>		<b>49.21 AC</b>		<b>\$ 694,000</b>
1	Targeted Invasive Removal*	49 AC	\$ 1,000	\$ 49,210
1	Restoration Tree Planting (areas of lg clusters of invasives removed)	2,000 UN	\$ 30	\$ 60,000
1	Restoration Seeding (disturbed areas and spots with no groundstory)	20 AC	\$ 2,000	\$ 40,000
2	Targeted Invasive Removal*	49 AC	\$ 750	\$ 36,908
2	Deer Exclosure Fencing	6,900 LF	\$ 55	\$ 379,500
2	Deer Exclosure Gates- Self Closing	5 EA	\$ 1,000	\$ 5,000
3	Targeted Invasive Removal*	49 AC	\$ 500	\$ 24,605
4	Targeted Invasive Removal*	49 AC	\$ 250	\$ 12,303
5	Targeted Invasive Removal*	49 AC	\$ 250	\$ 12,303
6	Tree Harvest Light thinning, Timber Stand Improvement	49 AC	\$ 700	\$ 34,447
7	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
10	Tree Harvest Light thinning, Timber Stand Improvement	49 AC	\$ 700	\$ 34,447
<b>Forestry Management Unit 5 Stewardship</b>		<b>22.72 AC</b>		<b>\$ 62,500</b>
1	Targeted Invasive Removal*	23 AC	\$ 1,000	\$ 22,720
2	Targeted Invasive Removal*	23 AC	\$ 750	\$ 17,040
3	Targeted Invasive Removal*	23 AC	\$ 500	\$ 11,360
4	Targeted Invasive Removal*	23 AC	\$ 250	\$ 5,680
5	Targeted Invasive Removal*	23 AC	\$ 250	\$ 5,680
<b>Forestry Management Unit 6 Stewardship</b>		<b>8.41 AC</b>		<b>\$ 34,300</b>
1	Targeted Invasive Removal*	8 AC	\$ 1,000	\$ 8,410
2	Targeted Invasive Removal*	8 AC	\$ 750	\$ 6,308
3	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,205
4	Targeted Invasive Removal*	8 AC	\$ 250	\$ 2,103
5	Targeted Invasive Removal*	8 AC	\$ 250	\$ 2,103
6	Tree Harvest Light thinning, Timber Stand Improvement	8 AC	\$ 700	\$ 5,887
8	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202

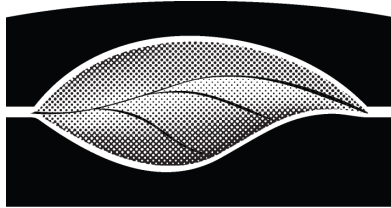
<b>Forestry Management Unit 7 Stewardship</b>		<b>11.44 AC</b>		<b>\$ 75,700</b>
1	Targeted Invasive Removal*	11 AC	\$ 1,000	\$ 11,440
2	Targeted Invasive Removal*	11 AC	\$ 1,000	\$ 11,440
3	Targeted Invasive Removal*	11 AC	\$ 1,000	\$ 11,440
4	Targeted Invasive Removal*	11 AC	\$ 1,000	\$ 11,440
5	Targeted Invasive Removal*	11 AC	\$ 1,000	\$ 11,440
6	Tree Harvest Light thinning, Timber Stand Improvement	11 AC	\$ 700	\$ 8,008
7	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
9	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
<b>Forestry Management Unit 8 Stewardship</b>		<b>144.65 AC</b>		<b>\$ 231,000</b>
1	Targeted Invasive Removal*	145 AC	\$ 500	\$ 72,325
2	Targeted Invasive Removal*	145 AC	\$ 300	\$ 43,395
3	Targeted Invasive Removal*	145 AC	\$ 300	\$ 43,395
4	Targeted Invasive Removal*	145 AC	\$ 200	\$ 28,930
5	Targeted Invasive Removal*	145 AC	\$ 100	\$ 14,465
6	Tree Harvest Light thinning, Timber Stand Improvement	5 AC	\$ 700	\$ 3,500
6	Invasives control after Timber Harvest	5 AC	\$ 500	\$ 2,500
7	Tree Harvest Light thinning, Timber Stand Improvement	5 AC	\$ 700	\$ 3,500
7	Invasives control after Timber Harvest	5 AC	\$ 500	\$ 2,500
8	Tree Harvest Light thinning, Timber Stand Improvement	5 AC	\$ 700	\$ 3,500
8	Invasives control after Timber Harvest	5 AC	\$ 500	\$ 2,500
9	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202
10	Restoration Tree Planting in Shelters	1 AC	\$ 5,202	\$ 5,202

<b>Forestry Management Unit 8a Stewardship</b>		<b>17.66 AC</b>		<b>\$ 540,100</b>
1	Targeted Invasive Removal*	8 AC	\$ 1,000	\$ 8,020
2	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
3	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
4	Targeted Invasive Removal*	8 AC	\$ 250	\$ 2,005
5	Targeted Invasive Removal*	8 AC	\$ 250	\$ 2,005
6	Remove Stream Culverts & Restore Stream Channel	2 LS	\$ 50,000	\$ 100,000
6	Steambank Restoration	600 LF	\$ 700	\$ 420,000
<b>Forestry Management Unit 9 Stewardship</b>		<b>5.22 AC</b>		<b>\$ 45,100</b>
1	Targeted Invasive Removal*	8 AC	\$ 1,000	\$ 8,020
2	Targeted Invasive Removal*	8 AC	\$ 1,000	\$ 8,020
2	Restoration Plantings (trees and shrubs with cages)	250 UN	\$ 60	\$ 15,000
3	Targeted Invasive Removal*	8 AC	\$ 750	\$ 6,015
4	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
5	Targeted Invasive Removal*	8 AC	\$ 500	\$ 4,010
<b>Management Unit 10 Clark's Creek Riparian Forest South Stewardship</b>				<b>\$ 808,200</b>
1	Targeted Invasive Removal-Bamboo*	1 AC	\$ 1,000	\$ 500
1	Restoration Forest Shade Meadow Mix (after first invasive removal)	1 AC	\$ 1,500	\$ 750
7	Stream Bank Restoration	400 LF	\$ 1,000	\$ 400,000
8	Stream Bank Restoration	400 LF	\$ 1,000	\$ 400,000
8	Forest Restoration of Former Parkign Area	1 AC	\$ 9,500	\$ 6,889
<b>Management Unit 11a Airfield Meadow Stewardship</b>		<b>65.59 AC</b>		<b>\$ 356,900</b>
1	Meadow Establishment	66 AC	\$ 3,500	\$ 229,567
2	Meadow Establishment	66 AC	\$ 500	\$ 32,795
3	Meadow Establishment	66 AC	\$ 250	\$ 16,398
4	Forest Restoration / Shrubland Transition Planting	17 AC	\$ 4,500	\$ 78,095
<b>Management Unit 11b Palustrine Emergent Wetland East Stewardship</b>		<b>3.00 AC</b>		<b>\$ 20,500</b>
6	Wetland Enhancement Area Restoration	3 AC	\$ 7,000	\$ 20,443
<b>Management Unit 11c Palustrine Emergent Wetland Central Stewardship</b>		<b>0.41 AC</b>		<b>\$ 259,100</b>
6	Engineered Dam Breach Allowance	1 LS	\$ 30,000	\$ 30,000
6	Stream alignment and restoration	300 LF	\$ 750	\$ 225,000
6	Wetland Restoration	0.41 AC	\$ 10,000	\$ 4,054
<b>Management Unit 11d David's Meadow Stewardship</b>		<b>30.00 AC</b>		<b>\$ 109,300</b>
1	Meadow Establishment	30 AC	\$ 1,650	\$ 49,500
2	Meadow Establishment	30 AC	\$ 500	\$ 15,000
3	Meadow Establishment	30 AC	\$ 300	\$ 9,000
4	Forest Restoration / Shrubland Transition Planting	8 AC	\$ 4,500	\$ 35,708
<b>Management Unit 12 Frankie's Dogleg Loop Meadow Stewardship</b>		<b>AC</b>		<b>\$ 4,500</b>
1	Routine Stewardship	3 AC	\$ 500	\$ 1,500
2	Routine Stewardship	3 AC	\$ 500	\$ 1,500
3	Routine Stewardship	3 AC	\$ 500	\$ 1,500
<b>Management Unit 13 Homestead Stewardship</b>		<b>AC</b>		<b>\$ -</b>
	Routine Stewardship			\$ -

\*Note Invasive Control management will need to continue past year five, but the level of effort should decrease and be managed through routine park stewardship

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# Key Person Interviews



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **05/26/2020  
1:00 PM – 1:30 PM**

Re: **Key Persons Interviews  
Brain Hoover**

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## ATTENDEES

Brain Hoover – Harrisburg Area Flying Society  
Sarah Leeper -Simone Collins (SC)

## NOTES:

1. The phone interview was held in follow up to the public meeting, and concern from HAFS that the airfield was not discussed during the meeting.
2. Sarah requested that Brian provide the SC team with the requirements for field size of the HAFS
3. Brain noted that the current layout of the field meets their needs and was positioned to create a flight zone with adequate buffers from trails, roads, and powerlines.
4. Brain noted that he would follow up via email with the standards to which the current field layout was designed.

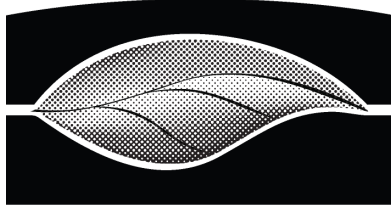
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Sincerely,

SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE

Sarah Leeper





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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **On Site**

Meeting Date/  
Time: **06/09/2020  
9:00 am**

Re: **Key Persons Interviews  
Russ Corkle**

---

### ATTENDEES:

Russ Corkle – Parks Operations Manager, Dauphin County Parks and Recreation Department  
Carl Dickson – Director, Dauphin County Parks and Recreation Department  
Pat Stasio – Simone Collins Team Member

### NOTES:

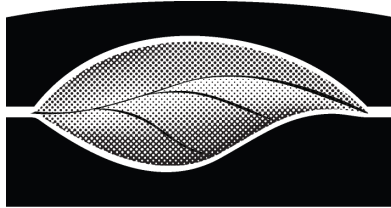
1. Russ reviewed the maintenance operations for all the parks and then discussed Detweiler Park specifically.
2. Russ noted that the staff for all the parks includes: 5 full time, 5 seasonal, and 2 seasonal that work weekends only
3. Noted for Detweiler Park maintenance operations includes: 1 seasonal worker who works non-traditional hours. The full-time staff assists when necessary.
4. Maintenance includes: trail work, tree removal and care, facilities including the Detweiler house in and out care, all other structures, trash removal / litter patrols, preparing for special events and programs, rest room care, and all other work associated with maintenance.
5. Contracted work is also used when the staff cannot perform the work required due to staff house or skill required for the task.
6. Maintenance needs additional equipment to perform at the level expects. A list of equipment will be provided by Russ to Pat via email.
7. Tasks are recorded via work sheets daily
8. Russ has a concern for the level of maintenance service that will be required. Additional staff will be required to perform the work.
9. We visited the hanger to review the structure and possible modifications to all for maintenance equipment or program offerings. We were unable to enter the structure, it is currently leased and was locked.
10. Russ commented on the maintenance needs all are dependent on what services will be required (programs, park visitations and uses, etc.)

Immediately after my interview, I reviewed the comments and the park to determine my initial recommendations for Detweiler Park as they relate to maintenance.

It is apparent to me that the following should be considered:

1. The addition of a Full Time Park Manager
2. Consideration should also be given to add a horticulturalist
3. Increased program opportunities exist
4. Two seasonal workers may be required to maintain Detweiler Park
5. Consider the addition of a full-time worker for the park
6. Additional equipment is required for the maintenance staff and the park specifically
  - Two Zero Turn Mowers
  - Loader / skid steer
  - Stump chipper
  - Small dump truck
  - Possibly a bucket truck for tree care and maintenance
  - Bush chipper
  - Forest maintenance / timber plan should be created for the health of the forest and specifically for the pine tree area
  - Volunteer assistance will be required to remove invasive plants and plant native species

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## MEETING NOTES

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Project: **Detweiler Park Master Plan** Project No.: **19060.10**

Location: **Virtual – Teams** Meeting Date/Time: **07/15/2020  
2:00PM – 2:30 PM**

Re: **Key Persons Interviews  
Esme and Bart Freedman,  
Detweiler Family Members**

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### ATTENDEES:

Esme Freedman  
Bart Freedman

Sarah Leeper -  
Simone Collins (SC)

Rob Gladfelter – SC

### NOTES:

1. Esme Freedman started the conversation by describing her memories of growing up, playing outdoors, and walking the trails that still exist on the property.
2. Sarah L. asked if they had an opportunity to review the concept plan. Both Esme and Bart stated that they had reviewed the plan. Esme discussed how she loved the plan. She commented that she liked the mountain bike trails and educational opportunities presented in the plan. She added that the unprogrammed open space and restoration areas resonates with the family's ideas for how the space should be used. Esme noted that she shared the plan with her sister and she too liked the plan. Esme continue to explain other parts of the plan that she liked such as the boardwalk connection between the two meadows, converting the pond back to a wetland, frisbee golf, and the potential programming ideas for the hanger. Bart added that bringing art programming into the site is a great idea. They both mentioned that they liked nature-based playgrounds and were familiar with them and where excited to see one incorporated here.
3. Esme explained that the family originally pursued conserving the property with Manada, but Manada could not pursue purchasing the property outright. Bart added that Manada did do a broad scoping of the property when there was interest for purchasing. He noted that Manada may still have a copy of the review.
4. Bart noted that connecting to the Appalachian Trail was a good idea and that the Susquehanna Appalachian Trail Club would be a good contact to follow up with in this regard, and that they should already be aware of the plan. He added that the park could also provide business opportunities for outdoor recreation.

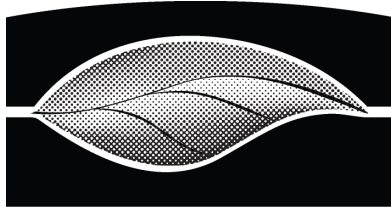
5. Esme and Bart stated that the site is was an important flyway for birds and that birder was a key aspect of the families use of the property.
6. Esme explained the names of the areas were after family members. She added that she would be interested in assisting with names of the new trails.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **07/15/2020  
3:30PM – 4:00PM**

Re: **Key Persons Interviews  
Guy Gibeau  
Permaculture/Food Forest**

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### ATTENDEES:

Guy Gibeau

Sarah Leeper -  
Simone Collins (SC)

Rob Gladfelter – SC

### NOTES:

1. Guy started the conversation by noting that he had walked the site with the concept plans and was really excited at what SC was proposing. He added that he liked the having disc golf included on the site. He was upfront that he was involved with political groups within Harrisburg but that his interest in the project and food forest are free of any political agenda.
2. Sarah noted that the implementation of a Food Forest on site would require a partner to work with the County to manage it. She asked what Guy's thoughts were for managing the food forest. Guy stated that he was reaching out to a local urban farming group to be the head organizational group and added that others are excited for the possibility of having a food forest and has mentioned their willingness to assist with the project. Guy explained that the food forest located within Falmouth Forest Garden at Conoy Wetlands Nature Preserve can serve as a model for the project.
3. Guy noted that ideally the food forest would expand approx. 100 ft from the woodland edge with expansion into the woods in the future. He stated that there would be need for perimeter deer fencing to protect the food forest as it gets established.
4. He noted the goal of incorporating native nut and fruit trees such as Chestnut, Hickory, and Pawpaw with the idea of a community events focused on the various harvest time as a way to educate about both local food and native habitats. He noted that he is actively propagating various native trees and would potentially be interested in donating tree stock to the nursery.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE

A handwritten signature in blue ink, appearing to read "Rob Gladfelter", with a long horizontal flourish extending to the right.

Rob Gladfelter



5. Sarah L. asked how the fire company and EMS coordinate emergency responses. Bob R. explained that many on his staff are capable of handling most emergencies, and if EMS does show up to the site at the same time, they will typically bring EMS personnel with them to the emergency.
6. Sarah L. asked if there were anything that should be noted for emergency response that has not been discussed. Bob R. noted that the site is important as a helicopter LIZ for emergencies and that there should be an area that is cleared to allow for helicopter access. He stated that the site currently can be used for emergencies on the AT trail. He requested that Knox key boxes be provided at central locations to allow access into park and houses where locks and gates would slow down emergency response time.
7. Sarah L. asked if there has been issues with vandalism or forest fires in the park and surrounding area. Bob R stated that this was not an issue.
8. Sarah L. noted that with the size of the meadow, one management technique that would be considered is controlled burns and if his staff would be able to offer support on these. He commented that controlled burns are usually planned and operated by DCNR and will typically notify the Fire Co. He added that his company does have personnel to handle controlled burns.
9. Bob R. finished the interview with noting that the plan looks nice and that he knows many in the company have and will continue to use the park.

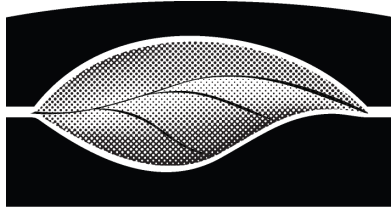
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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter





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## MEETING NOTES

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Project: **Detweiler Park Master Plan** Project No.: **19060.10**

Location: **Virtual – Teams** Meeting Date/ Time: **07/16/2020 9:30AM – 10:00AM**

Re: **Key Persons Interviews**  
**Dan Iacovone – Middle Paxton Elementary School Principal**  
**Howard Kresli -**

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### ATTENDEES:

Dan Iacovone  
Howard Kresli

Sarah Leeper -Simone  
Collins (SC)

Rob Gladfelter – SC

### NOTES:

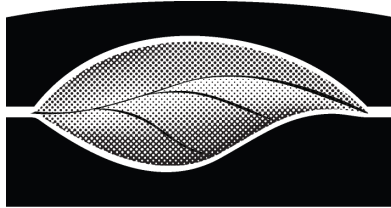
1. Dan started the conversation by apologizing that Dr. Norman Miller could not attend the meeting due to pressing issues.
2. Both Dan and Howard stated that they have reviewed the plan. Howard explained that he often visits the park and liked the proposed plan. Howard liked the idea that the park would not be geared towards active recreation and that the park could be used for unique programming such as a kite flying club.
3. Rob asked Dan for his thoughts on a relationship between schools and the park for educational purposes. Dan answered that there is a symbiotic connection between schools and local parks. Since the park is close to schools, the park could be used by teachers for educational purposes as well as school clubs.
4. Both noted that there currently was not a nature science club within the school district, but there was a Green Club at the high school and the Boy Scouts are active in the area. Both could be potential partners moving forward.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE

Rob Gladfelter





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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **07/21/2020  
11:00 AM – 11:15 AM**

Re: **Key Persons Interviews  
PennDOT - Michelle Tarquino**

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### ATTENDEES:

Michelle Tarquino - PennDOT District 8-0 Planner  
Sarah Leeper - Simone Collins (SC)  
Peter Simone – SC

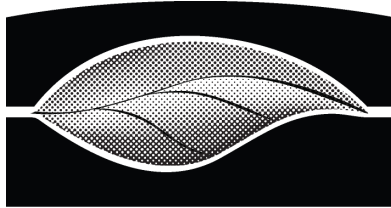
### NOTES:

PennDOT District 8-0 Planner Michelle Tarquino was contacted by the Simone Collins Team. The Master Plan team expressed the desire to meet with PennDOT to discuss possible driveway improvements on Peters Mountain Road and Clarks Valley Road (both PennDOT roads) that will facilitate master plan improvements. Ms. Tarquino declined to have a meeting at this time.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE

Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **07/23/2020  
9:30AM – 10:30AM**

Re: **Key Persons Interviews  
Jonathan Crisp - Neighbor**

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### ATTENDEES:

Jonathan Crisp	Sarah Leeper - Simone Collins (SC)	Rob Gladfelter – SC
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### NOTES:

1. Jonathan noted that he had bought his home (neighboring the park along Clarks Valley Road) in 2018. He has noticed since he has lived on the property, visitors would occasionally enter onto his property, especially from the northwest where the park trail is close to his property. Sarah stated that more signage and possibly a fence could be added to alleviate this issue.
2. Jonathan expressed concern about events that could happen on site, especially if it comes with more noise, but overall he liked the plan.
3. Jonathan asked about the idea of the dam removal and how it would affect the stream as it runs through his property. He explained that with in his property the stream runs through constructed walls and that there are two check dam structures to diverted flood water away from his home into the adjacent pasture. He added past flood events have left sediment deposits behind the dams. He was concerned about the timeline of the dam removal. He noted that he had observed water in the area below the dam with his yard. Sarah explained that the dam removal would be an engineered and permitted process. Permitting would require that there is no change in downstream conditions and that one goal of the wetland restoration would be to create a habitat that is better able to handle stormwater during rain events. She noted that there may be need for an construction access easement on the property dependent on the dam's proximity to the property line (*after further field review this would be unlikely*).
4. Jonathan explained that he was not against any deer culling or other deer control measures as he has seen herds in numbers of 70-90 pass through his property.

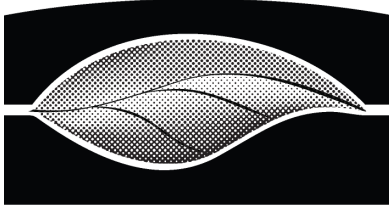
- Jonathan asked if there were any covenant on the property to prevent any future sale or development of the property. Sarah noted that there was no conservation easement on the land via Manda, but that the County is committed to being good stewards of the land. She noted that she was uncertain of the funding that the County had used to secure the property, but that the master plan is funded by Pennsylvania Department of Natural Resources (DCNR) and they would most likely serve as a funding source for improvements. Once DCNR funds are committed to improvements they require that the land be maintained as a park.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



**SIMONE COLLINS**  
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## MEETING NOTES

Project:	<b>Detweiler Park Master Site Plan</b>	Project No.:	<b>19060.10</b>
Location:	Virtual – Teams	Meeting Date/Time:	<b>08/04/2020 10:00AM– 11:00AM</b>
Re:	<b>Key Persons Interviews Commissioner Jeff Haste</b>		

### ATTENDEES:

Jeff Haste	Sarah Leeper - Simone Collins (SC)	Rob Gladfelter – SC
------------	---------------------------------------	---------------------

### NOTES:

- 1) Commissioner Jeff Haste explained that he had not reviewed the concept plan prior to the meeting. Sarah L. provided a broad overview the plan and then gave more details of each section to allow Commissioner Haste time to comment on each section. Below is a brief overview per sections.

*Conservation area:* Commissioner Haste asked about the trails and surfaces. Sarah L. noted that surface types would be dependent upon slope and intended usage. She explained some bituminous surface material may be required in areas of the park where trails may see heavy use, steep trail slopes will create erosion issue, or accessibility is a goal. Other park trails would maintain a native dirt surface indicative of more primitive or natural hiking trails.

*Fish Hatchery:* Commissioner Haste noted that the County has a good working relationship with the Conservation District and that they could be a potential partner with stream restoration in this area. He also stated the area is prone to flooding and this should be considered when thinking of material and future maintenance. Commissioner Haste asked if the intersection of Peters Mountain and Clarks Valley Road is the end of the ADA access for fishing. Sarah explained that this the end, but because of the overgrowth of the area, it shows signs of little use and is more likely being used by fisherman to park and fish the area west of the bridge.

*Frankie’s Dogleg:* Commissioner Haste had no comment for this section

*Pine Plantation (forest restoration area):* Commissioner Haste asked for more details on the deer enclosure areas. Sarah L. explained that the keeping deer out of the area would give the restoration better success and that such fences should remain in place a

minimum of five years to allow plants to get established. Commissioner Haste asked if hunting was being considered, such as shotgun or archery? Sarah L. explained that if hunting were to be considered, it would likely be a system implemented for deer management. Commissioner Haste noted that implementation of gate closures could be used to close off certain trails during times of deer culling. He added that Boyd's allows rifle hunting and that Flemish Down Trust allows permit hunting.

*David's Meadow and Meade's Mountain:* Commissioner Haste had no comment for these areas.

*Airstrip Meadow:* Commissioner Haste stated that Pennsylvania State Police has approached the County about using the airstrip for drone training and certification. He noted that this was currently being done at Hospital grounds, but there has been a conversation started with HAFS for shared use. He noted that he could provide the team with a contact.

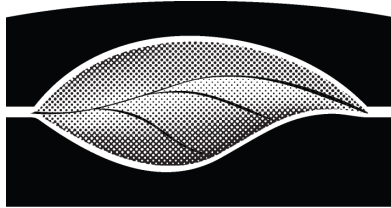
- 2) Commissioner Haste noted that Dauphin County did have an MS4 plan that is managed by the Conservation District and HRG (County Engineers).
- 3) Commissioner Haste explained that some of the events that the County holds such as the Wine and Jazz Festival at Hunter Park are outgrowing Fort Hunter and the configuration of the airfield meadow and other site parking areas could allow for Detweiler Park to host some of these events. He noted that there should be electric service to areas where the events would be held.
- 4) Commissioner Haste finished the conversation by adding that he liked the plan. He explained that the concept for Detweiler Park would provide activities that are not found in other Dauphin County Parks, such as mountain biking and access to new habitats.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



**SIMONE COLLINS**  
**LANDSCAPE ARCHITECTURE**  
119 EAST LAFAYETTE STREET NORRISTOWN, PA 19401  
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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/Time: **09/18/2020  
11:30 AM – 12:00 PM**

Re: **Key Persons Interviews  
Nick Loftus**

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## ATTENDEES

Nick Loftus - Susquehanna Area Mountain Bike Association-President  
Sarah Leeper -Simone Collins (SC)  
Peter Simone – SC

## NOTES:

1. Sarah reviewed the current plan revisions that had been made since the last public meeting summarizing the nature of biking proposed on the site.
2. It was noted that the central portion of Mead Mountain contains wetlands and under boulder hydrology. For this reason interior hiking trails were removed from the mountain trail system.
3. Nick discussed the need for mountain biking within the region and noted that Detweiler could help to fill the need for beginner and young mountain bikers.
4. Nick stressed that for SAMBA to be involved as a partner the trail system there would need to be at a level of service that makes sense for SAMBA to devote resources to the facility.
5. Sarah stated that SC would provide an updated concept plan to SAMBA for review. Nick noted that they would follow up with feedback.

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Sincerely,

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Sarah Leeper




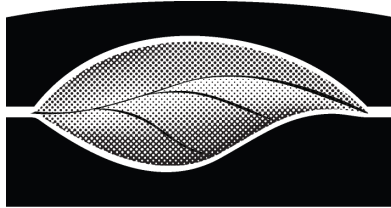


- With the establishment of the 1960 National Scenic Trail designation the entire trail is administered by the NPS. Their central office is located in Harper's Ferry, VA and is staffed by 8 employees.
  - NPS is not the sole landowner they manage the entire trail through a corporative Management Agreement
  - The majority of the trail is on public lands. In areas such as Pa State Game lands there is a defined trail corridor width / easement and the regulatory policies default to the PA Game Commission.
5. Bob reviewed the process for creating footpath connections to the AT.
- He noted that typically the proposed trail connection is proposed by the host club and they would take responsibility of the construction and maintenance of the trail.
  - However, in the past years there has been a raising trend with municipalities and other organizes looking to propose connections.
  - The first step in the case such as the Detweiler Park proposal would be coordination with the local club. The Local Club and the ATC would meet and determine if the connection is appropriate.
  - If so the proposal goes to the regional committee (comprised of members of other regional hiking clubs) for review. This is more of a curtesy and the regional clubs often have little say on what a local club is proposing.
  - Next the proposal needs to be signed off on by the land management for that area (NPS, PA State Game Lands, etc..). In the case of Detweiler Park the National Parks Service would need to sign off on the proposal.
6. Bob noted that for the portion of the foot trail that existing within the NPS lands that there would be additional considerations prior to them signing off on a proposal.
- Who is constructing the trail
  - Who is going to maintain the trail long term? If volunteers how will they be coverage from liability. He noted that one should not assume that the local clubs have the volunteer power to take on new trail in their areas. He noted that in our case we should keep in mind that many of our volunteers would be traveling from an hour away to maintain this area of trail.
  - Due to the AT's designation as a scenic trail, work will need to comply with the National Historic Preservation Compliance Act and historical and environmental clearances will need to be completed prior to construction of the trail. Current NPS review and approval of compliance documentation is a multi-year process.
7. Bob noted that he would provide us with the contact for the York Hiking Club.

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Sincerely,  
 SIMONE COLLINS, INC.  
 LANDSCAPE ARCHITECTURE

  
 Sarah Leeper, RLA  
 Project Manager



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **11/12/2020**  
**9:30 AM – 10:30AM**

Re: **Key Persons Interviews**  
**Steven Bernardi**

---

### ATTENDEES:

Steven Bernardi – PA Game Commission,  
Regional Land Manager (SE Region)

Sarah Leeper -Simone Collins (SC)

Rob Gladfelter – SC

### NOTES:

- 1) Steven Bernardi noted that he did not review the Master Plan prior to the meeting. Sarah L. reviewed the Master Plan and provided details to each section of the park. Mr. Bernardi expressed that he thought the plan was very comprehensive and well thought out. He noted that he liked the idea of having larger regional connections.
- 2) Mr. Bernardi provided suggestions to two main areas for planning: hunting and native plant restoration and management.
  - **Hunting:** Mr. Bernardi noted that many state parks have hunting and will at times close access to areas for safety. He noted that they typically correlate with hunting season. He explained that some parks will limit what type of hunting is allowed and mentioned as an example that Longwood Gardens only allow archery only after proving proficiency with a bow. Mr. Bernardi stated that if hunting is allowed on the site, it would provide opportunities for a partnership with the Game Commission for assistance in implementation and management with hunting and restoration efforts. He explained that with restrictions such as species, type of hunting, or limits to time periods may affect the County's ability for a partnership with the Game Commission, but this would have to be researched further.

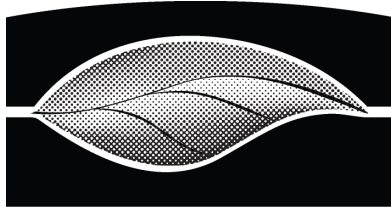
- Native plant restoration: Mr. Bernardi noted that the PA Game Commission has provided invasive plant management for state parks with use of controlled burns and use of herbicides. He explained that typically for restoration of a mowed field into a meadow, the Game Commission would control invasive plants in the field with burns, herbicides and pre-emergence for approximately 3 years before implementing a meadow planting. He noted that since 2009, PA Game Commission has done controlled burns in forested areas as well. Mr. Bernardi asked about the pine plantation area plans. He noted that the area was too small to do a timber sale. He explained that due to the loss of the Hemlock, Spruce trees will often be used due to the similar structure and thermal cover properties that provide important habitat for species including the Long-eared Owl. He suggested as restoration is started in the area, Spruce trees should still be allowed in the area and that using an extended rotation for removal and planting will provide more old growth habitat.

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Sincerely,  
SIMONE COLLINS, INC.  
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Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **11/12/2020**  
**10:45 AM – 11:45 AM**

Re: **Key Persons Interviews**  
**John Booth**

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### ATTENDEES:

John Booth – Director, Ned Smith Center for Nature and Art

Sarah Leeper -Simone Collins (SC)

Rob Gladfelter – SC

### NOTES:

1. John Booth noted that he had reviewed the Master Plan and stated that he thought it was a wonderful plan that would possibly create competition with Ned Smith Center (NSC). He noted that the regional connections could offer a larger draw for visitors into the area.
2. Mr. Booth explained that with this type of plan, maintenance has to be addressed. NSC has 9 ½ miles of groomed trails and other trails that are not managed. Some amenities that were built when as the park was being implemented have developed maintenance issues that are more difficult to address. NSC manages the site by committee which includes the 5 full-time personnel (director, grant writer, administrator, and two educators). The site consists mostly of forest and NSC has a partnership with DCNR and the PA Game Commission that includes a biologist and land manager to assist in management of the forested areas. Other maintenance is done through volunteers, a land and trail committee, and a partnership with Troegs Brewery. A part-time employee is used for any lawn mowing.
3. Mr. Booth explained that hunting is allowed on 300 of the 500-acre site. This is mostly located below the rail trail that runs through the park. He mentioned that all hunting is allowed during hunting season and that most hunting is done by archery for deer. He noted at one time there was an issue with hunters encroaching into the north area, but the partnership with the PA Game Commission has helped resolve this problem. He

explained the Game Commission Deer Management Assistance Program (DMAP) that provides a limited number of permits for hunters to take antlerless deer from participating sites. He mentioned that the Detweiler site could be a great space for mentored youth hunting and could assist with the deer management. He noted that there would probably be a waiting list for hunters who would like access to the Detweiler site.

4. Mr. Booth explained that NSC has a lot of programming to bring visitors to their park including educational programming, an amphitheater for arts programming, and trail runs. Sarah L. asked if mountain biking was allowed on site. Mr. Booth answered that some trails allow for mountain biking, particularly the rail trail, and some trails are discouraged from mountain bike use. He has also observed horseback riding. He noted that he has yet to have any incidents between the user groups but added that the site does not see many mountain bike users.
5. Mr. Booth stated his desire for a partnership with the County for marketing purposes. He explained that Peters Mountain acts as an obstacle and getting people from Harrisburg to visit NSC has proven difficult. He noted that the County has many amazing places to visit and that a partnership between the County and other site managers could provide for better marketing opportunities. He mentioned that due to Detweiler's open flat areas, programming opportunities should include bird watching and night sky viewing which are things that cannot be done at NSC.

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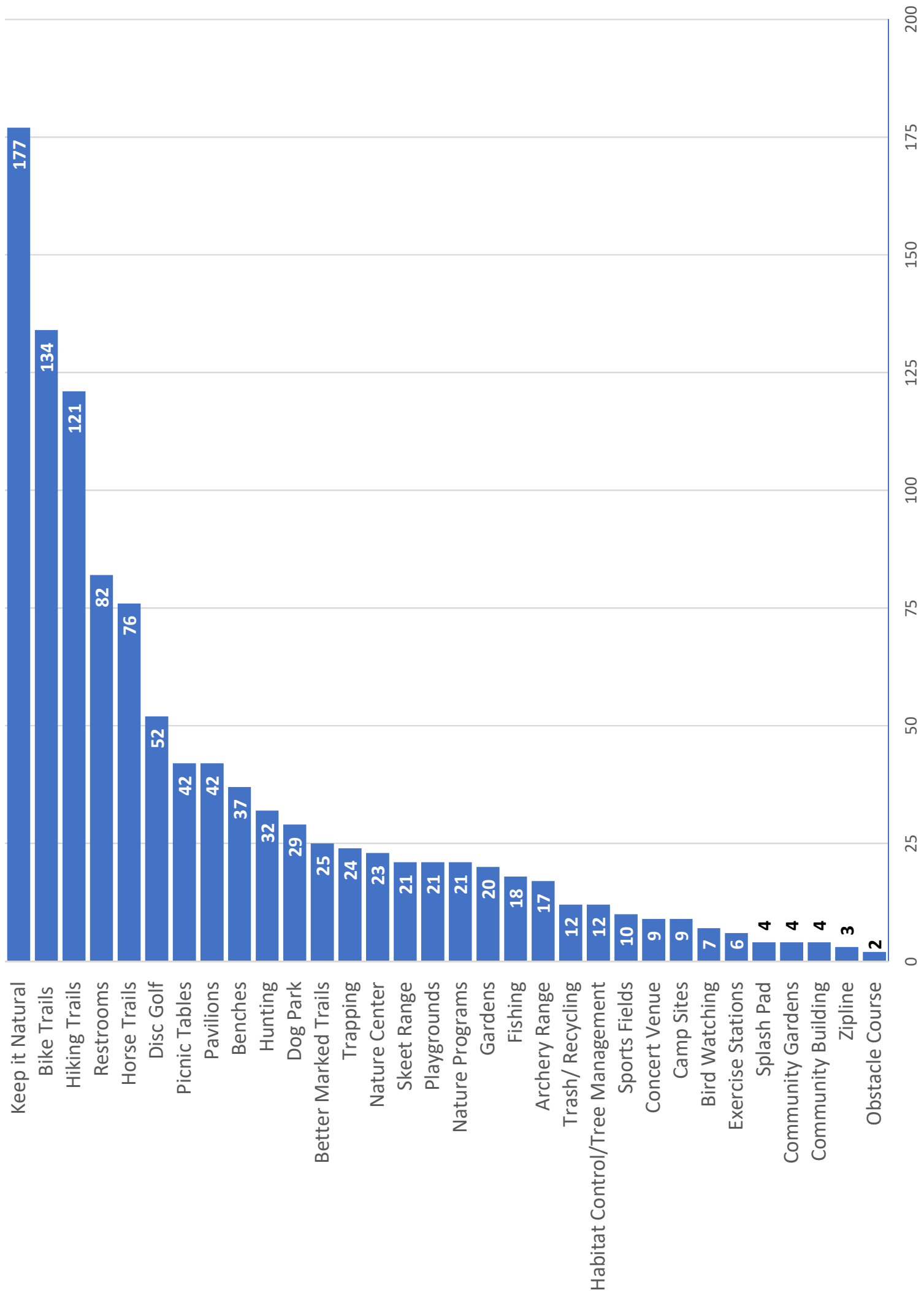
Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter

# Public Opinion Survey Results

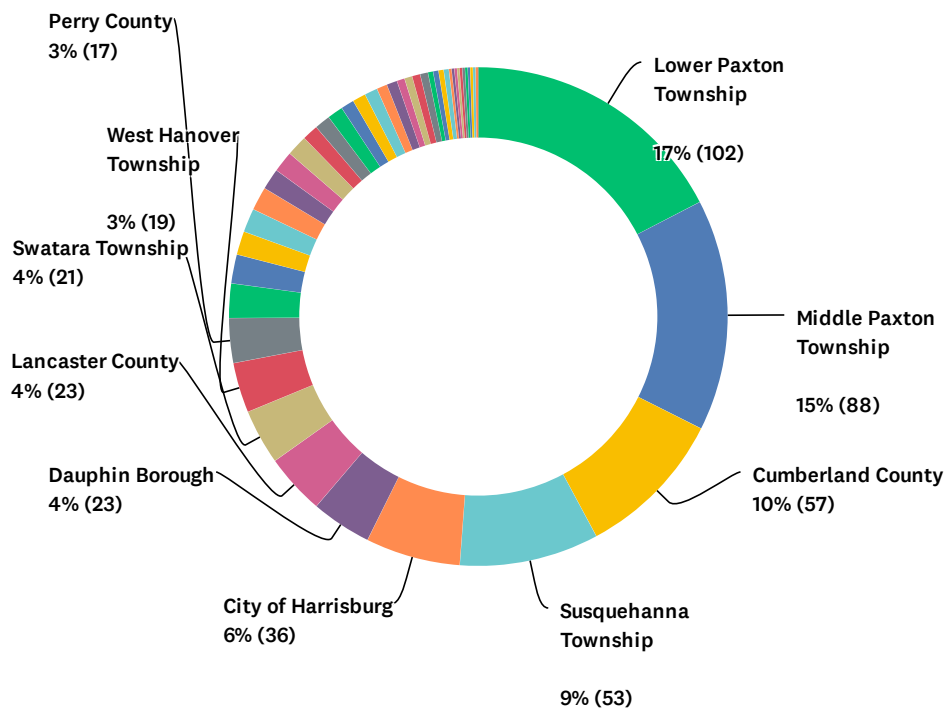
Detweiler Park Survey - Pre-Master Plan 2019





# Q1 What is the name of the municipality you live in?

Answered: 586 Skipped: 17



## Detweiler Park Public Opinion Survey

ANSWER CHOICES	RESPONSES	
Lower Paxton Township	17%	102
Middle Paxton Township	15%	88
Cumberland County	10%	57
Susquehanna Township	9%	53
City of Harrisburg	6%	36
Dauphin Borough	4%	23
Lancaster County	4%	23
Swatara Township	4%	21
West Hanover Township	3%	19
Perry County	3%	17
Derry Township	2%	13
York County	2%	11
Paxtang Borough	2%	9
Lebanon County	2%	9
Other (please specify):	2%	9
Halifax Township	1%	8
Hummelstown Borough	1%	8
South Hanover Township	1%	8
Jefferson Township	1%	6
Wayne Township	1%	6
Schuylkill County	1%	6
East Hanover Township	1%	5
Lower Swatara Township	1%	5
Steelton Borough	1%	5
Jackson Township	1%	4
Lykens Township	1%	4
Conewago Township	1%	3
Middletown Borough	1%	3
Upper Paxton Township	1%	3
Williamstown Borough	1%	3
Elizabethville Borough	0%	2
Millersburg Borough	0%	2
Washington Township	0%	2
Williams Township	0%	2
Gratz Borough	0%	1
Halifax Borough	0%	1

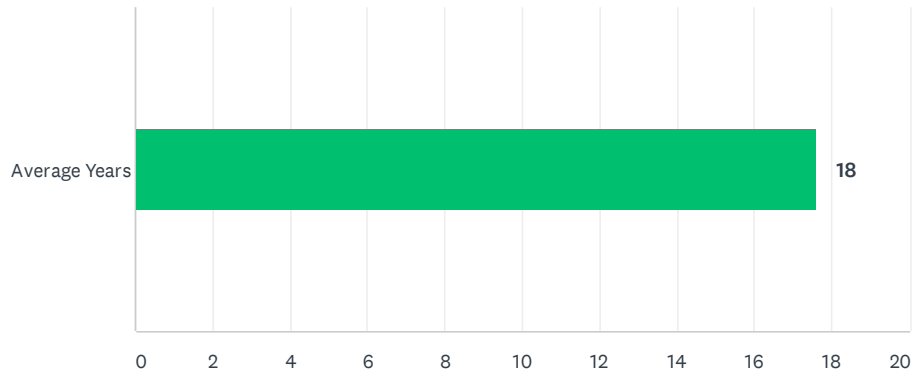
## Detweiler Park Public Opinion Survey

Highspire Borough	0%	1
Londonderry Township	0%	1
Lykens Borough	0%	1
Mifflin Township	0%	1
Penbrook Borough	0%	1
Pillow Borough	0%	1
Reed Township	0%	1
Wiconisco Township	0%	1
Northumberland County	0%	1
Berrysburg Borough	0%	0
Royalton Borough	0%	0
Rush Township	0%	0
<b>TOTAL</b>		<b>586</b>

#	OTHER (PLEASE SPECIFY):	DATE
1	Fairview Township	8/21/2020 4:09 PM
2	Huntingdon County	7/12/2020 9:12 PM
3	Harrisburg	7/3/2020 8:03 PM
4	New Cumberland	6/26/2020 3:27 PM
5	Moved to Union County	6/25/2020 1:36 PM
6	Fairview Township	2/14/2020 2:40 PM
7	Camp Hill Borough	2/12/2020 5:48 PM
8	Hampton twp	2/9/2020 6:36 PM
9	East Pennsboro Township	2/4/2020 12:30 PM

## Q2 How many years have you lived in your current municipality?

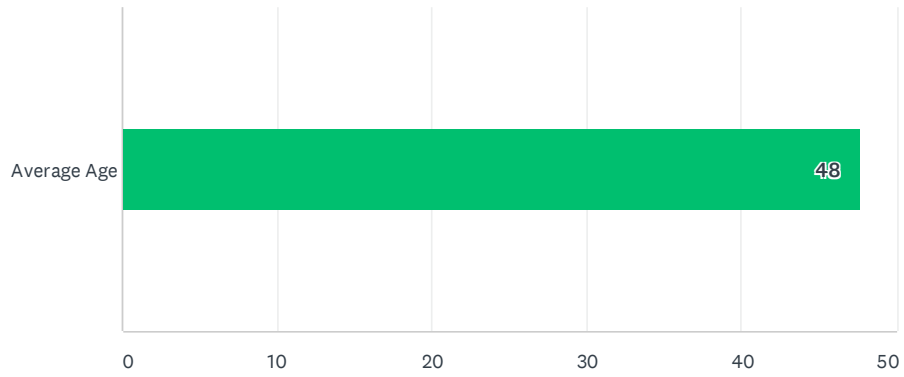
Answered: 596 Skipped: 7



	0-5	6-10	11-29	30+	TOTAL	WEIGHTED AVERAGE
Average Years	20.13%	13.42%	39.77%	26.68%		
	120	80	237	159	596	17.63

### Q3 What is your age?

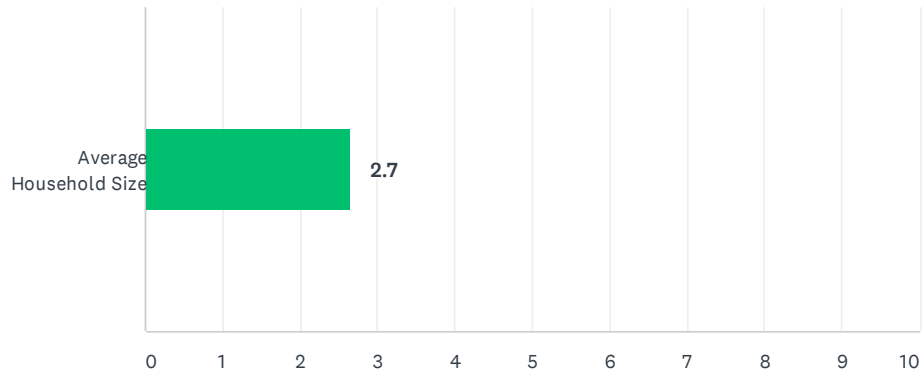
Answered: 596 Skipped: 7



	<12	13-18	19-24	25-44	45-65	65+	TOTAL	WEIGHTED AVERAGE
Average Age	0.00% 0	0.17% 1	1.51% 9	36.07% 215	44.13% 263	18.12% 108	596	47.72

### Q4 How many people currently live in your household?

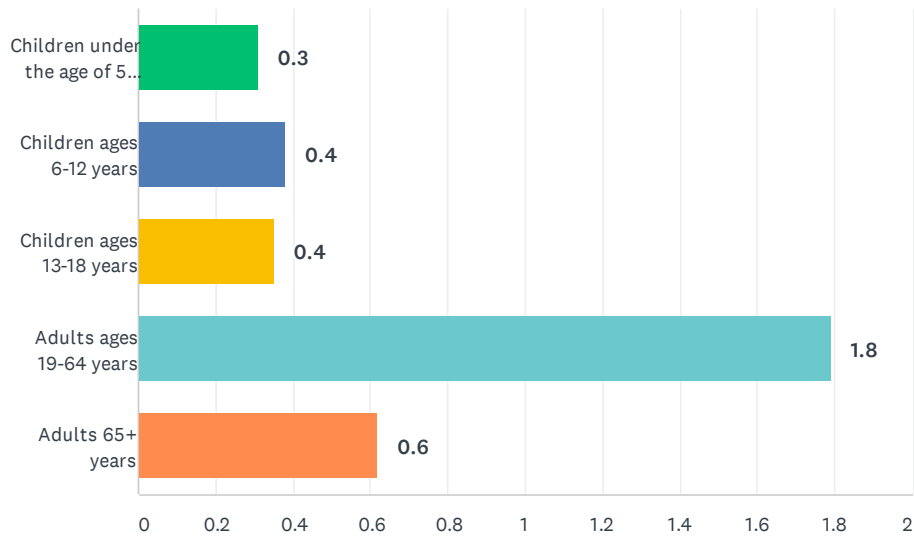
Answered: 595 Skipped: 8



	1	2	3	4	5	6+	TOTAL	WEIGHTED AVERAGE
Average Household Size	12.77%	44.87%	15.46%	18.99%	6.22%	1.68%	595	2.66
	76	267	92	113	37	10		

### Q5 Please indicate how many people of each age group currently live in your household?

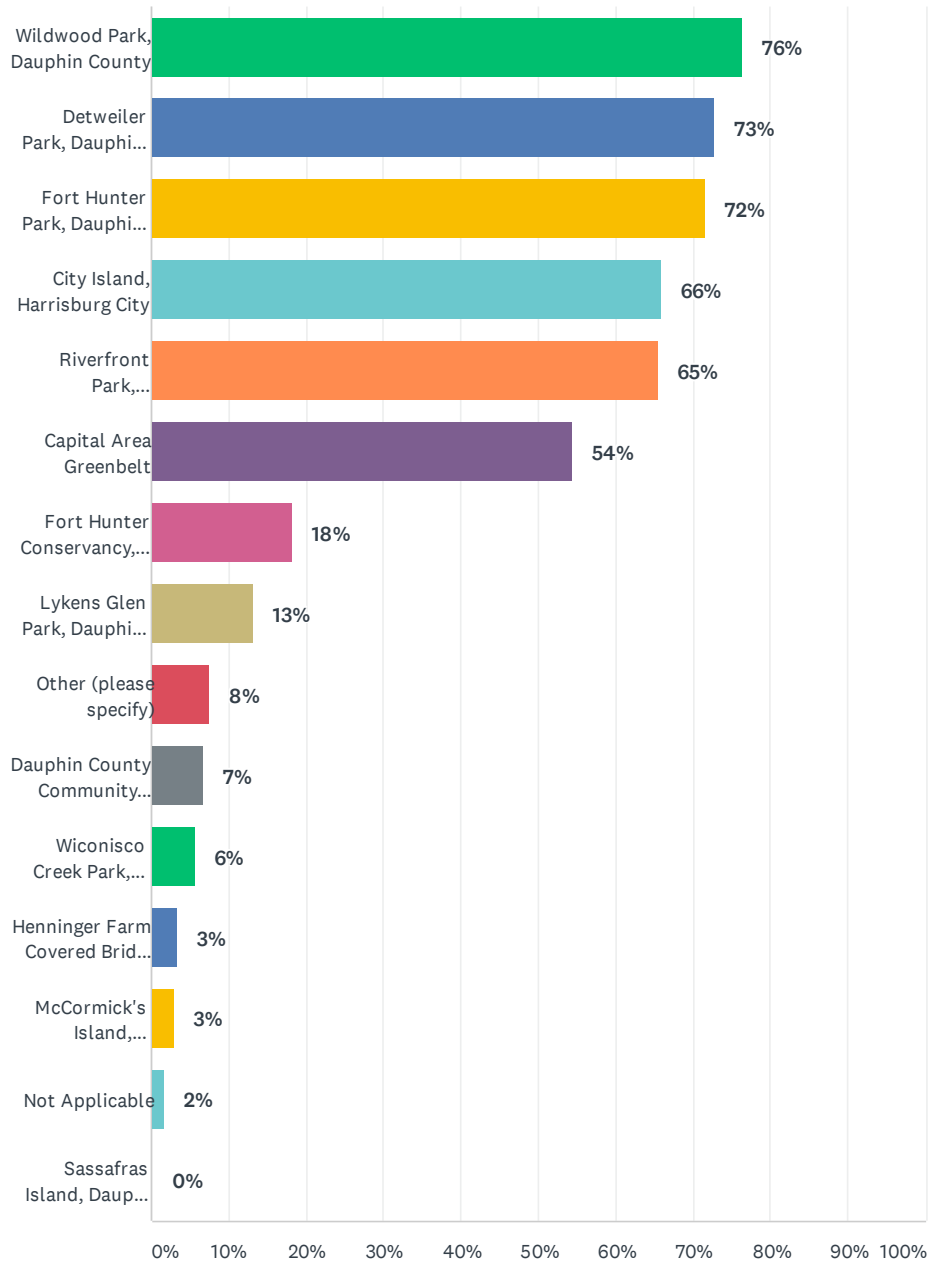
Answered: 593 Skipped: 10



	1	2	3	4+	NA	TOTAL	WEIGHTED AVERAGE
Children under the age of 5 years	11.64% 44	6.88% 26	1.06% 4	0.53% 2	79.89% 302	378	0.31
Children ages 6-12 years	17.51% 66	7.96% 30	1.59% 6	0.00% 0	72.94% 275	377	0.38
Children ages 13-18 years	17.39% 64	7.61% 28	0.82% 3	0.00% 0	74.18% 273	368	0.35
Adults ages 19-64 years	17.38% 94	61.18% 331	8.69% 47	3.33% 18	9.43% 51	541	1.79
Adults 65+ years	20.50% 74	20.22% 73	0.00% 0	0.28% 1	59.00% 213	361	0.62

Q6 In the past 12 months have you or a member of your household visited any of the following County or regional parks? (Check all that apply.)

Answered: 500 Skipped: 103





## Detweiler Park Public Opinion Survey

ANSWER CHOICES	RESPONSES	
Wildwood Park, Dauphin County	76%	382
Detweiler Park, Dauphin County	73%	364
Fort Hunter Park, Dauphin County	72%	358
City Island, Harrisburg City	66%	330
Riverfront Park, Harrisburg City	65%	327
Capital Area Greenbelt	54%	272
Fort Hunter Conservancy, Dauphin County	18%	91
Lykens Glen Park, Dauphin County	13%	66
Other (please specify)	8%	38
Dauphin County Community Gardens, Dauphin County	7%	33
Wiconisco Creek Park, Dauphin County	6%	28
Henninger Farm Covered Bridge, Dauphin County	3%	17
McCormick's Island, Harrisburg City	3%	15
Not Applicable	2%	8
Sassafras Island, Dauphin County	0%	1
Total Respondents: 500		

## Detweiler Park Public Opinion Survey

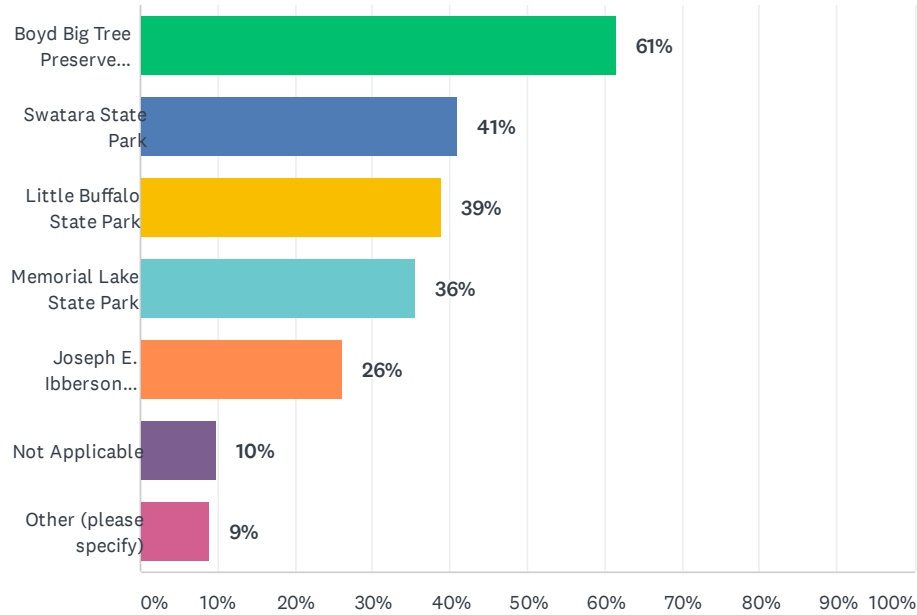
#	OTHER (PLEASE SPECIFY)	DATE
1	State Hospital Grounds in addition to Greenbelt Trail	9/16/2020 8:05 PM
2	To	9/11/2020 5:34 PM
3	Hagy park and Middle paxton township park in Dauphin	7/14/2020 4:41 AM
4	Memorial Lake	7/2/2020 9:56 PM
5	Boyd's Big Tree Conservancy, also the park at the top of Blue Moutain Parkway that has a ridge top trail that Connects to Boyds, also every Rail Trail within 50 miles	7/1/2020 6:13 PM
6	Highspire reservoir park Middletown reservoir	6/26/2020 9:49 PM
7	Crown Point Park	6/25/2020 5:08 PM
8	Reservoir Park	6/25/2020 4:00 PM
9	None	6/25/2020 3:54 PM
10	no	6/25/2020 3:03 PM
11	Hagy Park, Dauphin County	6/25/2020 12:31 PM
12	Northwest Lancaster County River Trail Pinchot Park King's Gap Levitz Memorial Park	6/25/2020 12:14 PM
13	No other	6/25/2020 10:50 AM
14	No	6/25/2020 10:44 AM
15	Ned Smith Center	6/25/2020 10:36 AM
16	Na	6/25/2020 10:24 AM
17	adams-ricci in east pennsboro twp	6/2/2020 4:07 PM
18	Boyd's Tree Preserve	5/30/2020 10:16 PM
19	Susquehanna Rail Trail	5/14/2020 4:04 PM
20	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
21	Michaux,loyalsock,rocky ridge,swatara park,hershey trail systems,mt Gretna,ect	5/11/2020 6:51 PM
22	Vanatta Schiavoni	4/28/2020 7:08 AM
23	Bike trails behind Hershey Med Center	3/5/2020 12:04 PM
24	Pincho Park Many state game lands	2/27/2020 10:13 PM
25	Ned Smith	2/21/2020 2:24 PM
26	In 2019 .....Worlds end st park ,Ricketts Glen st park ,Pinchot ,st park Michaux st forest , Loyalsock st forest , Swatara st park .rocky ridge park ,Mt Gretna ,Weiser st forest , Williamette of Oregon ,.Whiskey run bike park Oregon, Roth Rock st forest, Whiskey Springs, Camp Tuckahoo, Camp Mack,	2/14/2020 4:15 PM
27	col. denning state park	2/13/2020 1:37 AM
28	Shank Park Parkway trails	2/12/2020 2:12 PM
29	Swatara, Rocky Ridge, Lake Redman, Gilford Pincoh, John Rudy	2/11/2020 10:37 PM
30	Mt Gretna & Hershey	2/11/2020 9:56 PM
31	Parkway Trails	2/11/2020 8:50 PM
32	Ned Smith Center	2/6/2020 5:39 PM
33	Kayaking on the Susquehanna River and Swatara Creek.	2/5/2020 3:10 PM
34	Boyd big tree park Iberson trails Appalachain trail Victoria trail	2/4/2020 9:41 PM

## Detweiler Park Public Opinion Survey

35	NW Lancaster River Trail Hershey Gardens	2/4/2020 8:48 PM
36	Horse show trail at mt gretna	2/4/2020 6:53 PM
37	Dauphin Park Hagy Park	2/4/2020 12:02 PM
38	Susquehanna River Trail Appalachian Trail	2/3/2020 9:32 PM

Q7 In the past 12 months have you or a member of your household visited any of the following State Parks or Conservation Areas? (Check all that apply.)

Answered: 472 Skipped: 131



ANSWER CHOICES	RESPONSES	
Boyd Big Tree Preserve Conservation Area, State Park	61%	290
Swatara State Park	41%	194
Little Buffalo State Park	39%	184
Memorial Lake State Park	36%	168
Joseph E. Ibberson Conservation Area, State Park	26%	123
Not Applicable	10%	46
Other (please specify)	9%	42
Total Respondents: 472		

## Detweiler Park Public Opinion Survey

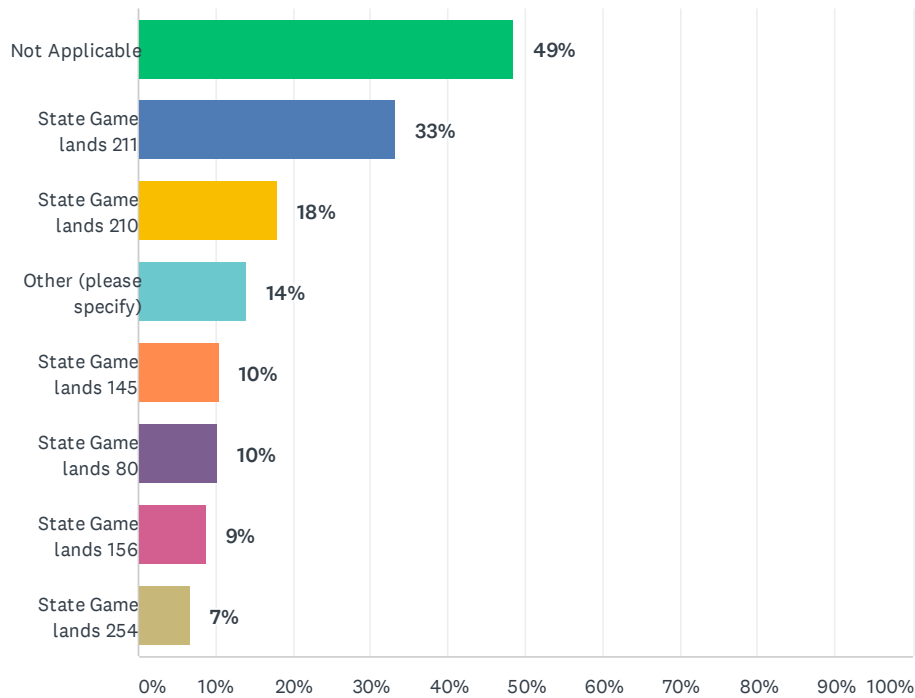
#	OTHER (PLEASE SPECIFY)	DATE
1	Rickett's glen	7/14/2020 4:41 AM
2	Z	7/5/2020 11:32 AM
3	Levitz Park	7/5/2020 8:27 AM
4	Pinchot	7/3/2020 8:17 PM
5	I	7/2/2020 6:07 PM
6	Middle Creek Conservation Area, Gifford Pinchot	7/1/2020 6:13 PM
7	Weiser Forest Haldeman tract	6/28/2020 2:56 PM
8	Pincot	6/27/2020 10:20 AM
9	Gifford Pinchot SP Little Buffalo SP Opossum lake Memorial lake Goldmine RD/Lebanon reservoir	6/26/2020 9:49 PM
10	Gifford Pinchot, Colonel Denning, Pine Grove Furnace, Fowlers Hollow, Samuel S. Lewis, Big Spring, Sand Bridge, McCall Dam, Ravensburg, Ricketts Glen	6/26/2020 8:19 PM
11	Pinchot State Park, Codorus State Park	6/26/2020 10:01 AM
12	Ricketts Glen	6/25/2020 11:34 PM
13	Weiser State Forest, Stony Creek	6/25/2020 9:24 PM
14	RB Winter	6/25/2020 2:26 PM
15	Codorus	6/25/2020 12:37 PM
16	Gifford Pinchot State Park	6/25/2020 12:36 PM
17	Weiser State Forest Appalachian Trail: Michaux through Swatara State Park	6/25/2020 11:55 AM
18	No other	6/25/2020 10:50 AM
19	No	6/25/2020 10:44 AM
20	R.B. Winters State Park	6/25/2020 10:23 AM
21	Pinchot	6/25/2020 10:15 AM
22	Asateague Island	6/25/2020 10:11 AM
23	Gifford Pinchot Codorus	5/27/2020 12:00 PM
24	Pine Grove Furnace State Park Caledonia State Park	5/14/2020 4:04 PM
25	Michaux,loyalsock,rocky ridge,swatara park,hershey trail systems,mt Gretna,ect	5/11/2020 6:51 PM
26	I	5/6/2020 10:15 AM
27	Tuscarora, Locust Lake, Pine Hill	5/6/2020 8:59 AM
28	State game lands	4/25/2020 10:32 AM
29	other state parks to include Worlds End, Cowans Gap, Hickory Run, Pine Grove Furnace	3/4/2020 7:02 PM
30	ned smith park, middle creek, Pinchot park, raystown	3/1/2020 10:48 AM
31	see above	2/14/2020 4:15 PM
32	fuller and laurel lakes	2/13/2020 1:37 AM
33	Pine Grove Furnace State Park	2/12/2020 4:50 PM
34	Pinchot	2/12/2020 4:25 PM
35	R.B. Winter State Park	2/12/2020 11:53 AM
36	Pine Grove Furnace State Park	2/12/2020 11:30 AM
37	Pine Grove Furnance	2/11/2020 9:47 PM
38	Appalachian Trail	2/6/2020 5:39 PM
39	Appalachian Trail & other hiking trails. Nature Centers and natural areas out of state (VA & NC) as well.	2/5/2020 3:10 PM
40	Pine Grove Furnace State Park Gifford Pinchot State Park	2/4/2020 8:48 PM

# Detweiler Park Public Opinion Survey

41	Gifford Pinchot Park Pine Grove Furnace	2/4/2020 1:50 PM
42	Pinchot State Park	2/3/2020 2:44 PM

### Q8 In the past 12 months have you or a member of your household visited any of the following State Game Lands? (Check all that apply.)

Answered: 373 Skipped: 230



ANSWER CHOICES	RESPONSES	
Not Applicable	49%	181
State Game lands 211	33%	124
State Game lands 210	18%	67
Other (please specify)	14%	52
State Game lands 145	10%	39
State Game lands 80	10%	38
State Game lands 156	9%	33
State Game lands 254	7%	25
Total Respondents: 373		

## Detweiler Park Public Opinion Survey

#	OTHER (PLEASE SPECIFY)	DATE
1	Any	9/22/2020 12:28 PM
2	Appalachian trail off Rte 225	7/14/2020 4:41 AM
3	Not sure where they are located	7/11/2020 1:23 PM
4	it would help if you indicated the region the corresponding number game lands. I am sure I have been to several of them, but don't know the numbers.	7/5/2020 5:05 PM
5	230 (Carlisle Springs) Middletown	7/5/2020 8:27 AM
6	We visit state game lands on a regular basis bur not sure what number they are assigned.	7/4/2020 11:50 AM
7	Not sure of the number	7/2/2020 9:56 PM
8	The one running along Stoney creek	7/2/2020 6:07 PM
9	State Game Lands up StoneyCreek	7/1/2020 6:13 PM
10	Appalachian Trail on Peter's Mountain	6/28/2020 2:36 PM
11	Weiser State Forest	6/26/2020 9:49 PM
12	Wieser State Forest Rattling Creek	6/25/2020 9:54 PM
13	On some of them, but pay no attention to number.	6/25/2020 9:24 PM
14	I don't know the State Game Lands by their number. Stoney Creek for Biking	6/25/2020 6:14 PM
15	I have visited the state game lands on Cove and Barry Mountain	6/25/2020 3:46 PM
16	Cumberland County	6/25/2020 2:48 PM
17	State Game Lands 243	6/25/2020 2:25 PM
18	SGL 68, 170	6/25/2020 11:55 AM
19	Not certain. I have driven through State Game Lands on Rtes. 325 and 443 and am uncertain of the numbers assigned to each parcel.	6/25/2020 11:43 AM
20	No other	6/25/2020 10:50 AM
21	No	6/25/2020 10:44 AM
22	230, 170	6/25/2020 10:36 AM
23	Sorry, I don't know the numbers	6/25/2020 10:16 AM
24	SGL 170 in Perry Co.	6/16/2020 3:39 PM
25	Not sure of the numbers, but at least the one near Boiling Springs, and the one near Newville.	5/18/2020 12:07 PM
26	Stoney Creek-not sure of Game Lands designation number.	5/14/2020 4:04 PM
27	Game lands restrict usage, bad folks run that	5/11/2020 6:51 PM
28	Dont know?	5/2/2020 9:00 PM
29	I don't know what state game lands my husband visits but he hunts in Perry, Juniata and Sullivan counties	4/30/2020 9:58 AM
30	The state game lands along the AT.	4/13/2020 12:29 PM
31	Stoney creek, Clarks valley trails and Lebanon valley trails	4/2/2020 4:02 PM
32	Visited State game lands but dont know numbers	3/29/2020 7:02 PM
33	I have visited a number of game lands, but don't know all of their numbers. Carlisle Springs (239?)	3/6/2020 5:45 PM
34	State Game lands 264 bi	2/28/2020 5:54 AM
35	Was	2/27/2020 10:13 PM
36	Unsure which State games but at least 1	2/27/2020 9:56 PM
37	None	2/27/2020 8:58 PM
38	Greenland tract	2/27/2020 8:26 PM
39	SGL 264 (Bear Valley)	2/27/2020 8:12 PM
40	I don't know the state game lands by numbers; however, am sure that we've been at at least	2/21/2020 2:24 PM



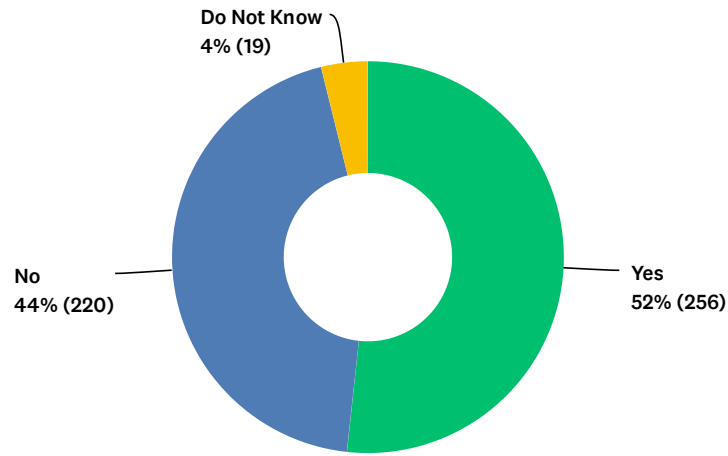
## Detweiler Park Public Opinion Survey

two as we hike a lot.

41	Don't know the numbers. Out Stony Valley	2/18/2020 10:15 AM
42	13 ,12 ,295 ,211,170,305, the Cove	2/14/2020 4:15 PM
43	I probably have visited these but I don't know where these are by number.	2/13/2020 6:16 PM
44	not sure	2/12/2020 4:49 PM
45	we've visited game lands but we do not know them by number.	2/12/2020 12:19 PM
46	I have visited game lands, but don't know the number	2/11/2020 9:47 PM
47	Weiserstate forest lykens,pa	2/11/2020 9:07 PM
48	P	2/7/2020 12:29 PM
49	SGL 170	2/5/2020 3:10 PM
50	State game land 170	2/4/2020 9:54 PM
51	Sullivan/Lycoming Counties, State Gameland 13	2/4/2020 12:44 PM
52	SGL 246 SGL 264	2/4/2020 8:38 AM

### Q9 In the past 12 months, has any member of your household participated at any activities at Detweiler Park?

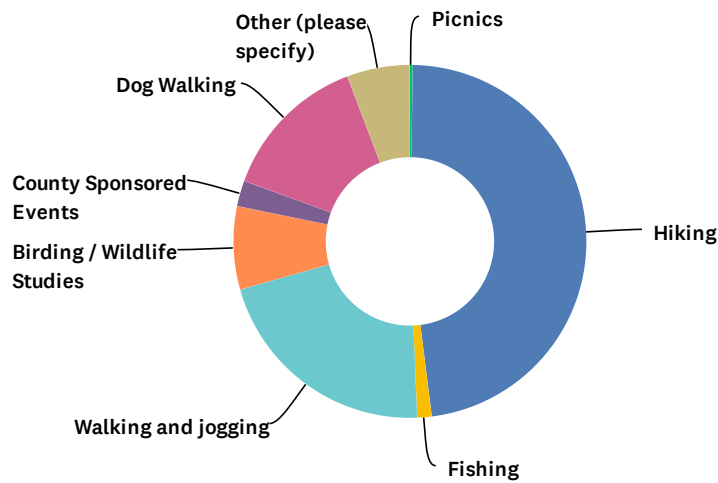
Answered: 495 Skipped: 108



ANSWER CHOICES	RESPONSES	
Yes	52%	256
No	44%	220
Do Not Know	4%	19
TOTAL		495

### Q10 Please select the primary activity you and members of your household participated in at Detweiler Park?

Answered: 463 Skipped: 140



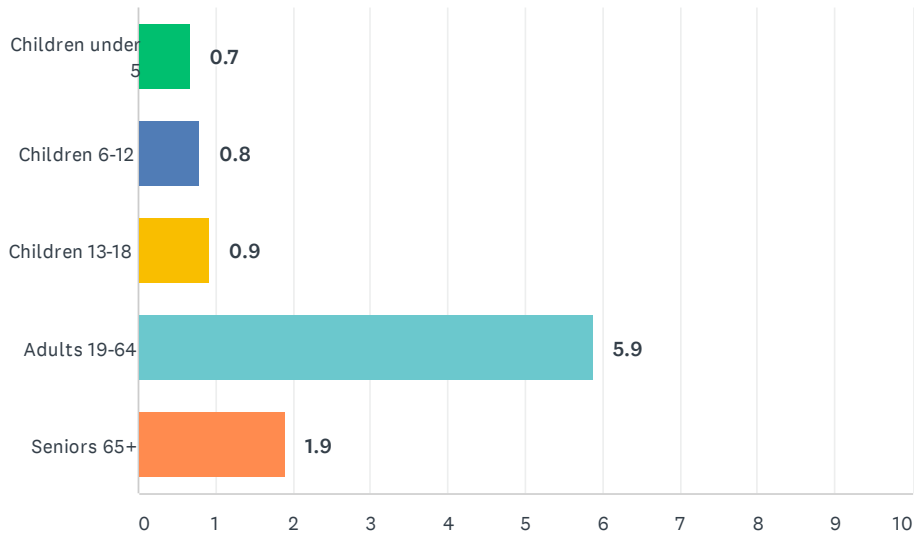
ANSWER CHOICES	RESPONSES	
Picnics	0%	1
Hiking	48%	182
Fishing	1%	5
Walking and jogging	21%	81
Birding / Wildlife Studies	8%	29
County Sponsored Events	2%	9
Dog Walking	14%	52
Other (please specify)	6%	22
<b>TOTAL</b>		<b>381</b>

## Detweiler Park Public Opinion Survey

#	OTHER (PLEASE SPECIFY)	DATE
1	Clean and remove invasive plant	7/14/2020 4:44 PM
2	Led 2 forest bathing groups through on a slow walk. One was a group of Master Gardeners and one was The Cumberland Herb Society. Educational purpose at no charge of course.	7/11/2020 1:23 PM
3	Photography	7/4/2020 11:50 AM
4	I would like to see archery hunting only available.	6/25/2020 3:03 PM
5	We plan to visit soon, then make it a regular event.	6/25/2020 2:25 PM
6	Hiking, but not in the last 12 months.	6/25/2020 10:58 AM
7	None	6/25/2020 10:44 AM
8	Trail Running	6/25/2020 10:36 AM
9	I can't wait to have some sustainable, well designed trails planned by and for mountainbikers. These would also be interesting hiking trails.	5/31/2020 6:54 PM
10	needs a trail system .Similar to swatara, or rocky ridge or Hershey trails at medical center.	5/11/2020 6:51 PM
11	Hiking with dogs	5/11/2020 6:21 PM
12	Botany	5/6/2020 8:59 AM
13	Mountain Biking, hiking and hunting	3/5/2020 12:04 PM
14	I love being able to bring my dogs here and walk them without the worry of busy roads.	2/27/2020 8:46 PM
15	mountain biking	2/14/2020 4:15 PM
16	mnt biking	2/13/2020 1:37 AM
17	Biking	2/12/2020 12:45 PM
18	Cross country skiing	2/12/2020 5:56 AM
19	S	2/11/2020 9:47 PM
20	Biking	2/11/2020 8:28 PM
21	Mountain Biking	2/11/2020 8:01 PM
22	Forest therapy bathing.	2/7/2020 12:46 PM

Q11 Thinking about members of your household who are in the age groups below, how many trips in total have the members of your household made to Detweiler Park in the past 12 months? Note, If you and your 10 year old son visited that is one check in in Children 6-12 row and a second check adults 19-64 row.

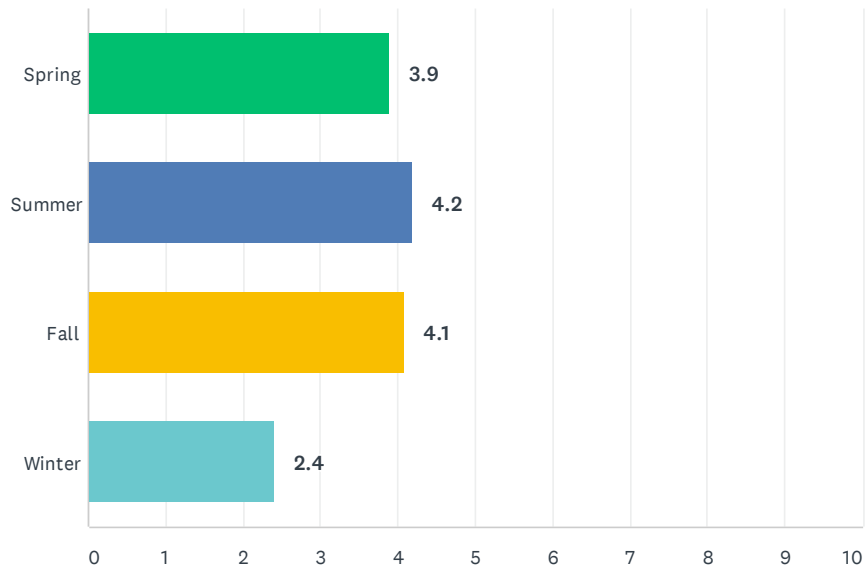
Answered: 482 Skipped: 121



	1-5	6-10	11-20	20 OR MORE	N/A	TOTAL	WEIGHTED AVERAGE
Children under 5	7.42% 21	2.12% 6	1.06% 3	0.71% 2	88.69% 251	283	0.67
Children 6-12	13.64% 39	3.85% 11	0.35% 1	0.35% 1	81.82% 234	286	0.80
Children 13-18	13.89% 40	3.82% 11	0.69% 2	0.69% 2	80.90% 233	288	0.93
Adults 19-64	38.39% 162	12.56% 53	5.45% 23	15.17% 64	28.44% 120	422	5.88
Seniors 65+	21.90% 69	4.76% 15	3.17% 10	2.22% 7	67.94% 214	315	1.91

## Q12 How often and during what seasons do you use the facilities at Detweiler Park?

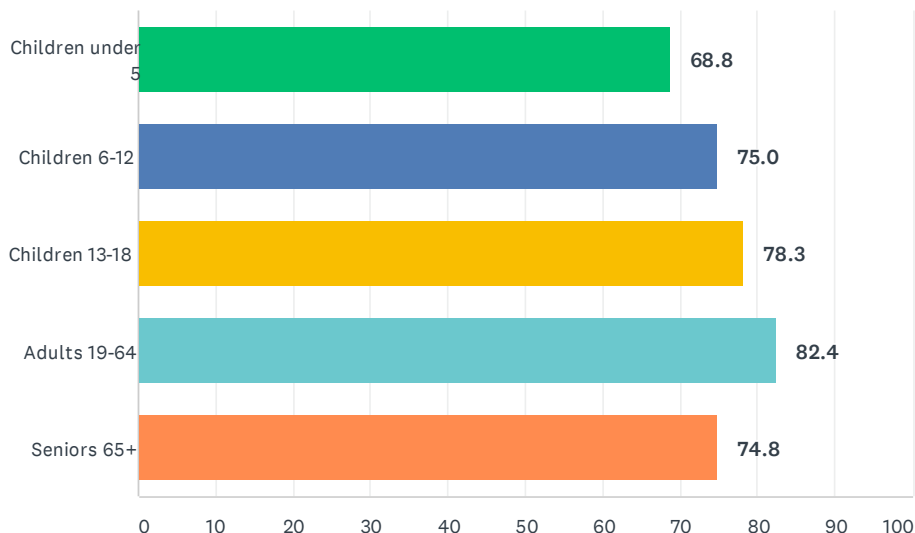
Answered: 485 Skipped: 118



	FREQUENTLY (1X / WEEK)	OCCASIONALLY (1X / MONTH)	RARELY (1X / SEASON)	NEVER	TOTAL	WEIGHTED AVERAGE
Spring	20.26% 95	34.12% 160	23.67% 111	21.96% 103	469	3.89
Summer	23.09% 106	32.03% 147	22.00% 101	22.88% 105	459	4.18
Fall	22.01% 103	33.12% 155	22.65% 106	22.22% 104	468	4.08
Winter	11.29% 49	22.81% 99	25.58% 111	40.32% 175	434	2.41

### Q13 In general, how well do you think the age groups listed below are served by Detweiler Park?

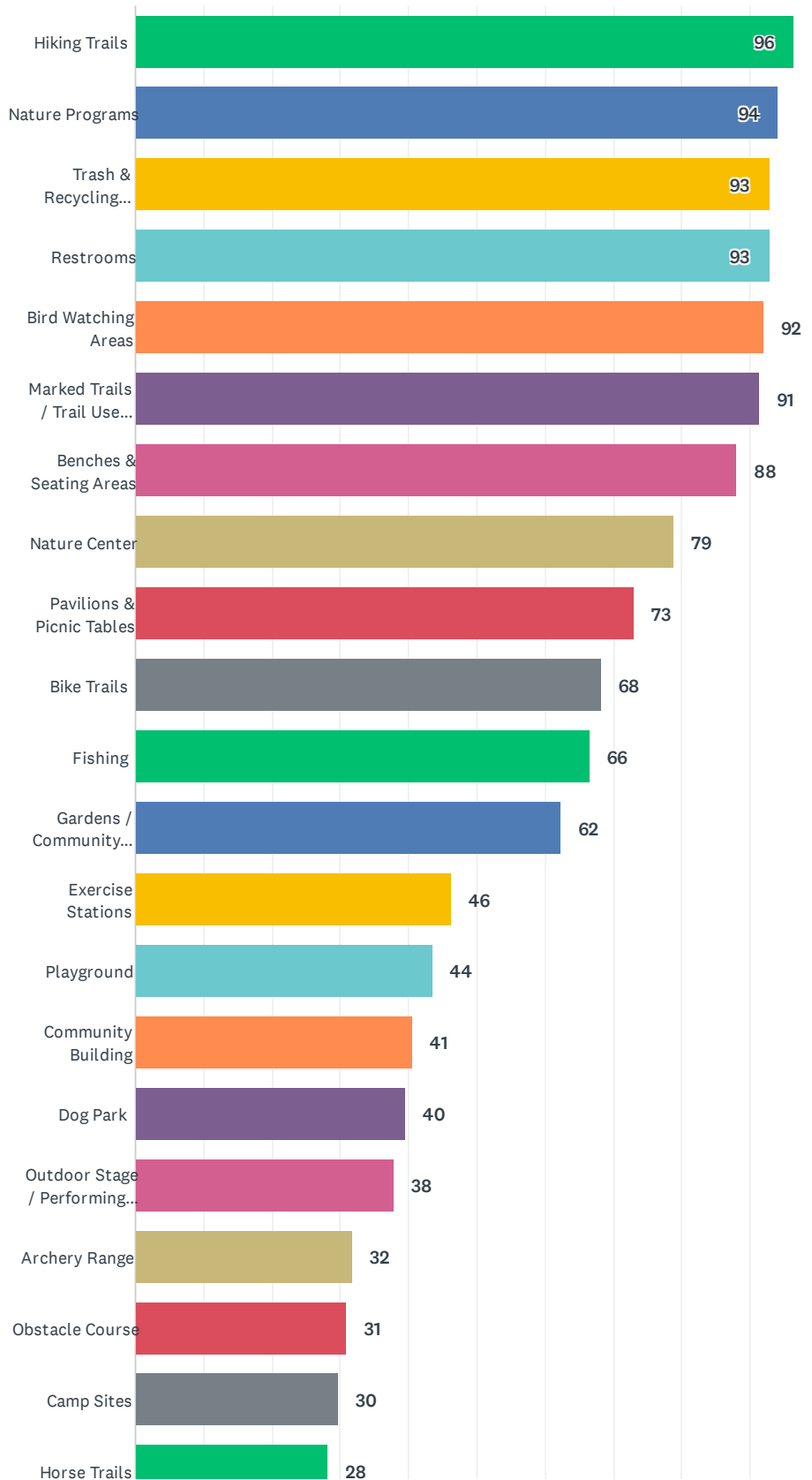
Answered: 478 Skipped: 125



	VERY WELL	WELL	SOMEWHAT WELL/POORLY	POORLY	VERY POORLY	DO NOT KNOW	TOTAL	WEIGHTED AVERAGE
Children under 5	14.22% 62	15.37% 67	9.40% 41	3.90% 17	2.75% 12	54.36% 237	436	68.84
Children 6-12	18.65% 83	18.88% 84	10.11% 45	2.92% 13	0.90% 4	48.54% 216	445	75.00
Children 13-18	21.54% 95	21.54% 95	7.71% 34	2.04% 9	0.91% 4	46.26% 204	441	78.27
Adults 19-64	33.33% 155	31.83% 148	6.88% 32	1.94% 9	0.22% 1	25.81% 120	465	82.39
Seniors 65+	19.37% 86	23.87% 106	11.49% 51	2.48% 11	1.13% 5	41.67% 185	444	74.81

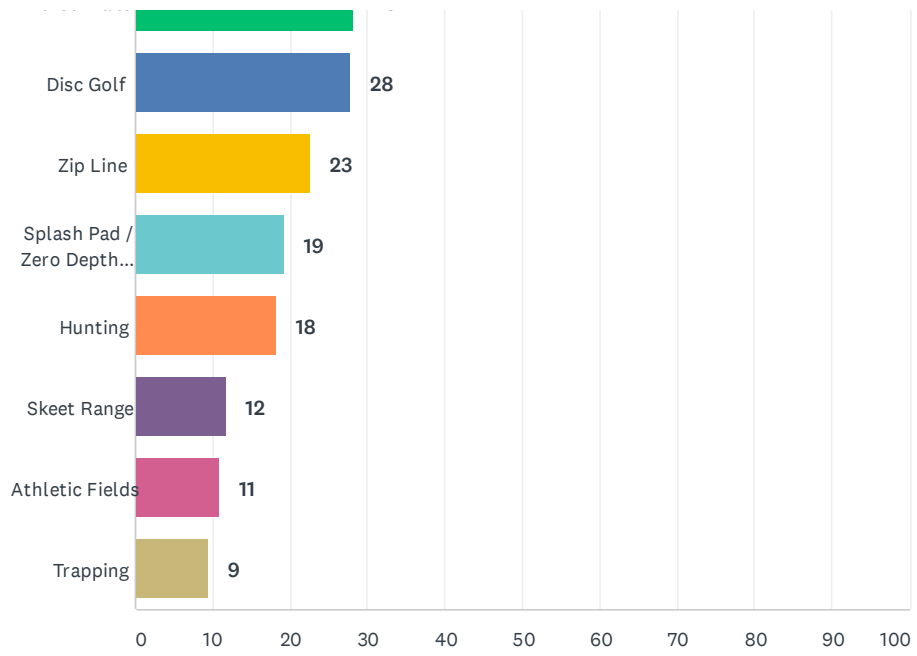
### Q14 Specifically regarding the master plan for Detweiler Park, which new or additional facilities and activities do you think should be considered?

Answered: 501 Skipped: 102





# Detweiler Park Public Opinion Survey



## Detweiler Park Public Opinion Survey

	YES	NO	TOTAL	WEIGHTED AVERAGE
Hiking Trails	96.34% 447	3.66% 17	464	96.34
Nature Programs	94.10% 399	5.90% 25	424	94.10
Trash & Recycling Receptacles	92.97% 410	7.03% 31	441	92.97
Restrooms	92.86% 429	7.14% 33	462	92.86
Bird Watching Areas	92.03% 381	7.97% 33	414	92.03
Marked Trails / Trail Use Hierarchy	91.37% 360	8.63% 34	394	91.37
Benches & Seating Areas	88.08% 377	11.92% 51	428	88.08
Nature Center	78.93% 296	21.07% 79	375	78.93
Pavilions & Picnic Tables	72.95% 294	27.05% 109	403	72.95
Bike Trails	68.23% 277	31.77% 129	406	68.23
Fishing	66.49% 244	33.51% 123	367	66.49
Gardens / Community Gardens	62.33% 225	37.67% 136	361	62.33
Exercise Stations	46.15% 174	53.85% 203	377	46.15
Playground	43.56% 159	56.44% 206	365	43.56
Community Building	40.54% 135	59.46% 198	333	40.54
Dog Park	39.55% 142	60.45% 217	359	39.55
Outdoor Stage / Performing Arts Venue	37.95% 137	62.05% 224	361	37.95
Archery Range	31.81% 118	68.19% 253	371	31.81
Obstacle Course	30.89% 114	69.11% 255	369	30.89
Camp Sites	29.65% 110	70.35% 261	371	29.65
Horse Trails	28.29% 86	71.71% 218	304	28.29
Disc Golf	27.91% 103	72.09% 266	369	27.91
Zip Line	22.66% 87	77.34% 297	384	22.66
Splash Pad / Zero Depth Water Play	19.18% 70	80.82% 295	365	19.18
Hunting	18.20% 73	81.80% 328	401	18.20
Skeet Range	11.62% 43	88.38% 327	370	11.62
Athletic Fields	10.85%	89.15%		

# Detweiler Park Public Opinion Survey

	41	337	378	10.85
Trapping	9.45%	90.55%		
	36	345	381	9.45

## Detweiler Park Public Opinion Survey

#	OTHER (PLEASE SPECIFY)	DATE
1	If things like campgrounds and stages were brought to detweiler, me and my family would stop coming because it would ruin what sets it apart from all the other parks. We enjoy the quiet and peaceful walk and seeing the wildlife.	9/21/2020 6:31 PM
2	The Detweiler Family sold this land to the county. Did they want nature preserved or converted to pavement? Some activity on a few acres at Rt 225 would be ok but not beyond that. I walk the park 4 times a week.	9/21/2020 1:38 PM
3	Please leave as is for nature and nature lovers	9/21/2020 1:18 PM
4	Birds - from so many visits it is quite apparent - there is an unusual absence of Birds in Detweiler Park. Detweiler Park and as many others, you want people to visit, an short visit and LEAVE. Any congregation type areas will result in competition for the use of that space. The past has revealed though you may have an Permit necessary for its use ... many people IGNORE applying for an permit. When some decide they will make CLAIM for an space they will occupy it and YOU will not do anything about it. I've seen too many altercations, confrontations between people for the reason some know to arrive just at dawn and occupy the space for an group - and w/o an permit. City Island picnic areas are an prime example. Having people come to this community, Peaceful community will have strangers see we are vulnerable here. Crime WILL go up. And you will be the blame. Short visits, w/o seating - since people will then visit and LEAVE.	7/14/2020 4:44 PM
5	Detweiler Park is a great place for outdoor education.	7/11/2020 1:23 PM
6	Kite Flying Area	7/10/2020 11:22 AM
7	Any pasive activities	7/10/2020 10:35 AM
8	Only build a community building if conservation building were to be taken off as a potential facility for part time use. A waste of money to build another community center.	7/9/2020 6:55 AM
9	Skate park	7/6/2020 2:29 PM
10	Would recommend a low carbon footprint	7/5/2020 5:05 PM
11	It would be really great to have a native plant garden. native plants are essential to our local wildlife and ecosystem and are being pushed out by so much development. Invasive species are suffocating our forests.	7/2/2020 9:33 PM
12	It would be nice not to commercialize the area and keep it mainly natural.	6/28/2020 2:36 PM
13	xcountry skiing	6/28/2020 11:29 AM
14	I've sent in my ideas several times and it has been ignored...totally.	6/27/2020 10:20 PM
15	Year round accessibility is a must. The trails beyond the stream are suitable for cross country skiing. An alternate access would solve that problem. Limited or no nighttime lighting would preserve the dark sky attributes of the park.	6/26/2020 9:49 PM
16	I answered no to hunting generally, however I am in favor of a limited deer hunting season to control damage. One of the things we like so much about Detweiler is that it is a safe place to hike with our dog during hunting seasons.	6/26/2020 8:19 PM
17	I feel strongly that there should NOT be athletic fields, shooting or model aviation. These activities will add noise to our preciously peaceful county park.	6/26/2020 10:41 AM
18	Single track cross country trail for mountain biking and trail running. Also technical skills area for mountain biking.	6/25/2020 9:54 PM
19	Cross Country Skiing	6/25/2020 7:16 PM
20	Mountain bike trails built and maintained by Samba.	6/25/2020 6:41 PM
21	-Bicycle pump track -Mountain bike skills area featuring progressive elements and challenges" (like at Rockburn Park in Md or Raystown Lake) -Beginner to intermediate rider focused singletrack trails that offer progression and skill development -Gateway trails to help new riders progress from rail trails and roads to PA's great trails -Rerouting of unsustainable trails	6/25/2020 6:11 PM
22	Boy Scout, Girl Scout sponsored events. Photography classes.	6/25/2020 4:03 PM
23	Group nature walk and nature educational activities and events like the conduct at Wildwood Park. Once COVID is under control, of course.	6/25/2020 4:00 PM
24	Yoga and other exercise programs	6/25/2020 1:51 PM
25	I feel the park should be turned back to an agricultural use (sold) and taxes collected. This is a huge waste of our taxpayer funds.	6/25/2020 1:49 PM

## Detweiler Park Public Opinion Survey

26	Keep it pristine and don't enhance crowded areas for people who are ignorant about the beauty of this park and who will spoil it. I say definitely no bikes - walking/hiking only!!!	6/25/2020 1:17 PM
27	Handicapped/Elderly accessibility where possible. Marked bird watching areas (internal areas); marked biking/hiking trails (outside perimeter).	6/25/2020 1:04 PM
28	I believe the property should be developed as little as possible. Organized "entertainment" such as zippiness etc. should not be part of the plan. This property should be looked at as a place for nature and for people enjoying nature.	6/25/2020 12:56 PM
29	Biking trails should be separate from hiking trails.	6/25/2020 12:54 PM
30	Handicap accessible trails	6/25/2020 12:53 PM
31	Tree house for kids	6/25/2020 12:37 PM
32	If any kind of shooting is taking place you have to take into consideration dogs that may be walking in the area. Dogs are scared of gunshots. So even skeet shooting could be an issue. I feel kids have enough parks. This park should be for people wanting to relax and enjoy the wildlife. Many of us live close to the city and enjoy the woods. Bike trails are ok as long as they aren't combined with the walking trails. Many times my dogs have almost been hit by kids flying past on bikes. Definitely not trapping! It's inhumane!! and when I sat in the TEAMS meeting someone mentioned there are cats roaming. NO TRAPPING!!	6/25/2020 12:31 PM
33	As a close personal friend of the Detweiler family, and someone who spent a lot of time here growing up, I think that ultimately the park is perfect as it is now. It perfectly showcases a natural & beautiful and undisrupted area that can be tough to find. Adding a lot of the things listed (although some would be nice!) would take away from that wonderful and unique part about Detweiler Park.	6/25/2020 12:30 PM
34	Shaded walking/ hiking trails	6/25/2020 11:50 AM
35	Please leave the park as natural as possible. Other sports activities can be found elsewhere. I don't think we need a fenced dog park, but dogs should be allowed on the trails.	6/25/2020 10:58 AM
36	We have enough parks that are already in disrepair or are underfunded. Staff cannot keep up with the maintenance of trash removal, maintenance of trails and buildings, and the disrespect/damage people show to our outdoor areas. Make this park available on a less is more approach until it can be determined what costs and the manner of any other amenities or programs will be.	6/25/2020 10:57 AM
37	Bicycle trails that meet the needs of users and are designed to deliver appropriate experiences with sustainable construction. Pump track and skills area for local riding community and youth programming (no such facility exists in Dauphin Co at this time). Built to allow for use of variety of bikes from "striders" to bmx to adult. VT's Kingdom Trails skills area or Rockburn Park in MD could offer design ideas and cues. Bicycle playground/skills for very young riders - age 2-8. Maybe a BMX track and program - there is no similar venue in the greater Hbg area. The closest is in York. National Interscholastic Cycling Association friendly practice trails and potentially venue trails for the fastest growing youth sport in the USA - youth mountain biking. Again, there are no appropriate trail systems within northern Dauphin Co for this user group and most other regional trails are too advanced/risky for many beginning riders. This is also the fastest growing youth volunteer and trail stewardship force in the state and could be a valuable partner for the park. - NICA friendly trails are, by design, also very much "gateway" trails that create friendly entry level experiences for riders of all ages. These same trails can also be designed to accommodate hand cyclists and other adaptive cyclists - again, something that doesn't exist in Dauphin Co or the greater central PA region. Separation of some user experiences so that hikers, equestrians, walkers, trail runners, bird watchers, and bike riders all have both shared space and "exclusive space" within which the experience can be better tailored and improve general use experiences for all. Combining these, a NICA practice loop that teams from middle and high schools throughout Dauphin Co could use that is connected to, but able to be separated from, the rest of the trails at certain times so that all have a great experience. - This is just like the investment that communities and parks and rec departments have made for soccer, football, basketball, baseball, and other youth sports -- we need this for young riders too. But, these trails can and will be used by other people of all ages too -- and that doesn't happen very much at all with many of our sports fields. If there is hunting it would be really great if we could have somewhere in the central PA area that didn't effectively close to other use on Saturdays of hunting season. Perhaps look at the urban park model of herd management or methods used in places like Valley Forge to provide for hunting while not impeding other use. Edible landscaping Outdoor silent sports venue possibility (also revenue possibility for the park). Elimination of unsustainable trails and roads. dog park - if one is necessary in the area, yes, but this doesn't seem like a part of the region where a dog park is needed at first glance. Outdoor rock climbing "playground" installation -- artificial boulders with handholds. Another missing experience across central PA and something for users of a very wide range of ages. There are literally tens of thousands of acres within a 20 minute drive of Detweiler that are designated specifically for hunting in the PA SGLs and open to hiking and a few of the other activities. It would be wonderful for a place like this to begin to build some of	6/16/2020 3:39 PM

## Detweiler Park Public Opinion Survey

the equity of experience and access that is currently absent from most of Dauphin Co for other outdoor enthusiasts.

38	Honestly, I enjoy the park everyday just the way that it is. It is simple which is peaceful. Some of the things I checked yes to might be nice if they didn't detract from the peaceful nature that exists there now.	6/6/2020 7:06 PM
39	Orchard sugar maple or other fruit/nut	6/3/2020 7:48 PM
40	Let's not "love it to death" Where do you propose to build more parking area? How can we make the roads around it more bicycle friendly, so that we can ride our bikes there without getting killed? Maybe plan a safe route there from Dauphin? Harrisburg Bicycle Club can help with this.	5/31/2020 6:54 PM
41	Detweiler is one of few large tracts of land remaining in the County. It should be protected as a natural area for the public's enjoyment of open space and for the protection of nature and wildlife.	5/18/2020 9:42 PM
42	I answered "no" to anything that might result in high-density concentrations of human-beings, because part of the beauty of this park is its relative isolation and access to undisturbed natural areas and habitats, which is so wonderful and scarce, nowadays, locally, for passive recreation and experiencing the outdoors on its own terms. However, if, e.g., a Nature Center and nature programs were to be added, a low-impact leave-no-trace kind of approach would be wonderful. And there may be parts of the park that could be suited to more intense human activity. But if those could be located away from, and kept from disturbing the wild outdoor experience currently available in much of the park, that would be a real and lasting treasure and asset to the community, as well as to surrounding communities, which have already been overrun by soccer fields and the like, for example. Detweiler Park has the opportunity to offer outdoor and wildlife experience is unique in the area. So many other nearby communities are no longer able to offer much, if anything, nowadays, for passive, serene, relative quiet (devoid of a lot of human sounds) outdoor wildlife/Natural-History learning and experiences. One thought about older populations trying to access it for hiking and outdoor accessibility, since some older folks have a harder time with hills and uneven terrain, might be to make a trail and trail access that entails fewer hills, but still offers "edge" habitat (because that's where wildlife is often most active) and relative quiet and access to birds and wildlife observation. The big orange chairs that you have placed here and there are great because they offer a place to perch for a little while and just observe, as well as "take a load off" ! Although blending in is also nice, the bright color makes them easy to spot. Maybe some more benches (not necessarily brightly-colored) here and there, as places for wildlife observation and just a peaceful place and space to relax and de-stress, so hard to come by these days, would also be a good addition. Fishing is a relatively low-impact activity when done by sensible people, and is an activity that might be able to be accommodated within the scope of other quieter outdoor pursuits in some part of the park, and it also offers a great opportunity to introduce children to the outdoors + 2 catching their own food, assuming it wouldn't be just catch and release. Maybe some public education programs about how to catch, prepare and eat wild-caught fish could be offered. It would be great, however, if human activities could be only permitted in such a way as to protect opportunities for very quiet, passive, "observational use" activities. With increasing human pressures, it is so difficult now, to find relatively nearby access to just enjoying being outdoors without the crush and noise of sports activities -- and wildlife gets chased out, or more elusive, and harder to observe. And the more we invade and chop up woodland and meadow tracts, the more we allow in things like feral cats and less desirable activities, and degrade the value of these habitats for more sensitive birds and wildlife.	5/18/2020 12:07 PM
43	I do not believe that high impact uses should be considered for this park do to the park's sensitive forest ecology. This area is a very rare and fragile landscape and all future recreational development must be carefully designed and planned. I further believe that active and high impact type recreational activity would better be served in areas of the township where both high and low level development already occur. Places like "Detweiler" are very rare in this day and age...and they're becoming rarer every decade.	5/14/2020 4:04 PM
44	Primary leave as is--wild area with both fields and woods. Primary use nature observation and walking.	5/12/2020 3:50 PM
45	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM

## Detweiler Park Public Opinion Survey

46	Pistol range/rifle range	5/11/2020 8:48 PM
47	No one activity should be in place that restricts another .Example if you have hunting no one else can use the park .Horses are ok but do a lot of trail damage and I`ve never seen them do trail maintenance. Rocky ridge 700 hundreded acres is a great example of mix use trail system. Samba will gladly build your trails. Hunting state game lands 211 is seven miles away giving hunters 40,000 acres of hunting opportunity .	5/11/2020 6:51 PM
48	Gardens by the house of the yellow dog loop would be great.	5/11/2020 2:42 PM
49	seriously TRAPPING are white men still doing that ... no wonder mother nature hates us geez us .. give her and them a break !!! can't you just leave some places quiet !!!	5/11/2020 12:47 PM
50	ATV ride once or twice a year. Periodic model rocket firing events. Pavilions. Farming demonstrations. Celebrate the park's farming heritage.	5/11/2020 9:00 AM
51	The less developed this gem is the better! I would like to see the current trails preserved, like diverting the streams on the trail at the top of the hill in the woods to help prevent it from being such a wet trail (which is a deterrent for hiking). Also creating more trails in the woods so outdoor enthusiasts could enjoy Mother Nature more. Please don't develop this land!	5/10/2020 8:25 PM
52	Please don't over develop the park.	5/10/2020 12:52 PM
53	Radio Control Field	5/10/2020 10:23 AM
54	I had heard a rumor of a possible indoor Rec facility and possible indoor pool - Dauphin county is starving for an indoor pool - none of the high schools have them - everyone of them need a practice and event facility and could also host additional regional events ... I would prefer to see this huge tract of land be utilized for something new and different - yes I have walked my dog a few times out there and it is a nice area but we Already have several Really nice walking/hiking trails (which are not heavily used that I have ever seen so why do we need the same old same old)...something that can be a revenue generator - jobs for locals (kids) and could have activities all year long would be fabulous...	4/28/2020 3:11 PM
55	Community building would be nice to house an indoor space for educational areas (similar to Wildwood Park)	4/28/2020 2:59 PM
56	Please do not add most of these things. It's beautiful and natural the way that it is. Playgrounds, zip lines, athletic fields, etc would take away from the amazing serenity of the place. It is the only refuge my dog and I have where we feel like we are completely in nature. I also think that if you do have campsites, they should be dispersed and hike in only like Lower Allen Township Park.	4/21/2020 8:08 PM
57	Keep noise ,trash and to many humans out	4/2/2020 4:02 PM
58	Please build a disk golf course , it is growing in popularity and will help the park serve more people. A spray ground would also be good.	3/29/2020 7:02 PM
59	I think trails for biking and hiking would be great with benches and rest areas. It would be best to keep the park in its natural state so guests could enjoy the outdoors without too much disturbance.	3/5/2020 12:04 PM
60	A dog park would be a great addition since many people bring their dogs to the trail.	3/4/2020 2:54 PM
61	Food Forest	3/4/2020 8:11 AM
62	I love wildwood park hbg. set up They have small secluded pavilions with seats to watch the birds and wildlife and random benches to take a break.. They have simple bathrooms (not horrible portable pottys) and spring water access that's drinkable. The nature center is small and simple and set up well for adults and childern with indoor chairs also for bird watching. PLEASE NO CAMPING - BRINGS TO MUCH TRASH AND TO MANY PEOPLE AT ONE TIME - PEOPLE WANT SAFE AND UNCROWDED PLACES TO ENJOY THE QUIET AND BEAUTY OF NATURE. If you create trails for mt. biking make sure they are definitely separate and away from hikers. DEFINITLY MARK TRAILS WITH MILES AND LEVEL OF CHALLENGE. YOU CAN'T GO WRONG MODELING AFTER HBG WILDWOOD PARK. NO ZIPS OR WATER PARK - TOO MANY PEOPLE, A SMALL OUTDOOR STAGE WITH OCCASIONAL EVENTS LIKE PLAYS (NOTHING REAL LOUD OR TO LARGE) WOULD BE NICE.	3/1/2020 10:48 AM
63	food forest	2/25/2020 6:57 PM
64	It would be nice if the park would offer more availability for the handicapped or seniors to view nature. I.E., golf cart rides or some vehicle that can transport people who are unable to walk. Possibility two times a month, etc.	2/21/2020 2:24 PM
65	I would love to see natural food being grown. Give kids a taste of berries fruit etc. Not sure how to keep wildlife out of the berry patch!	2/19/2020 12:42 PM
66	Please do not allow hunting or trapping in the park.	2/17/2020 1:02 PM

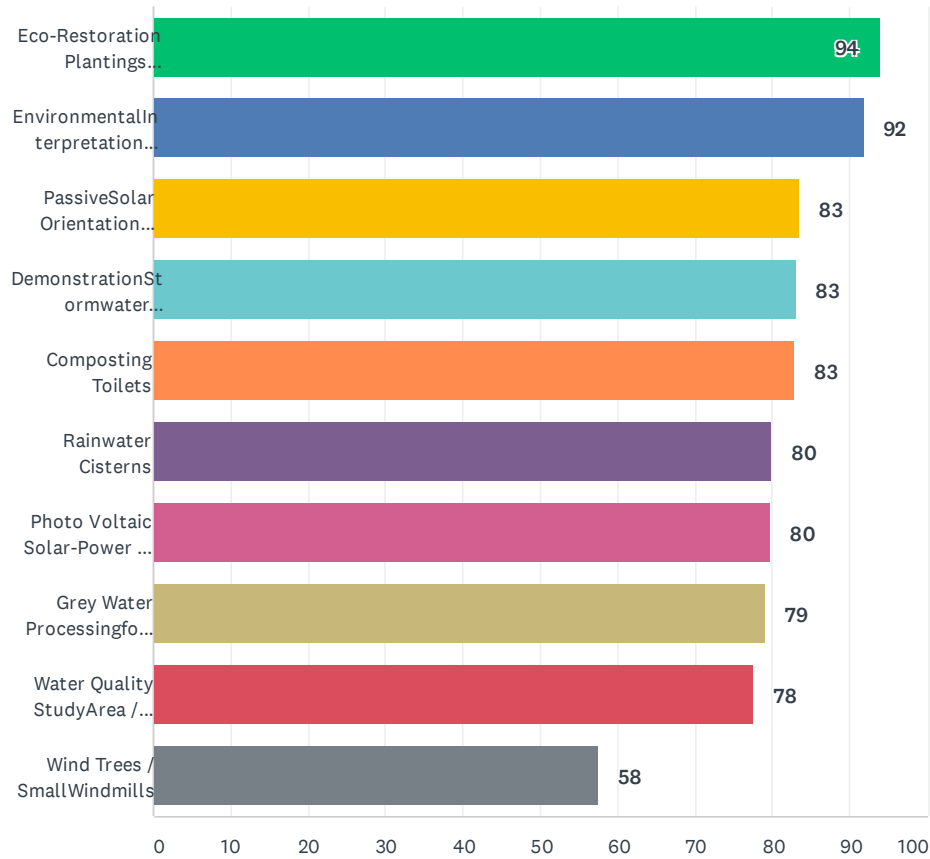
## Detweiler Park Public Opinion Survey

67	Mountain bike trails.	2/11/2020 10:54 PM
68	Mtb trails !!!	2/11/2020 9:07 PM
69	You need signs now for the trails. You need a professional grade chipper to remove the trash wood laying within 10-20 feet of the path and make more naturally "littered" forest floor.	2/9/2020 6:55 PM
70	Would love a community building and restrooms on premise!	2/6/2020 9:22 PM
71	Park naturalist programs Night sky viewing Cross country skiing	2/6/2020 5:39 PM
72	Keep Detweiler low key, low impact. I enjoy walking there as if I'm a friend of the family enjoying the great outdoors.	2/6/2020 11:35 AM
73	We go there because it's not crowded and is natural and quiet.	2/6/2020 11:31 AM
74	No orange or otherwise wild colored benches!	2/6/2020 12:22 AM
75	Kid's biking facility such as bicycle playground or pump track	2/5/2020 3:50 PM
76		2/5/2020 2:17 PM
77	My family and I spent a great deal of time on this property over the last 50 years including while Meade Detweiler was still alive. Based on all contact with Meade and his wife, we feel Meade would have wanted the property to be used by all but kept as natural as it was when he would walk with his dogs around the existing trails. Thank you.	2/4/2020 10:34 PM
78	They ask to clean up after our pets...we DO. Please provide a receptacle to dispose of our waste bags.	2/4/2020 8:07 PM
79	Bear-proof trash cans and recycling cans. If there are bike trails, please designate certain areas for them away from regular walking/hiking trails. ADA Accesible trails with permeable surfaces. If there is model aviation access, then please limit usage times to consider noise disruption for other users trying to enjoy the space, and for nearby residents. Peters Mountain road alternative parking lot access point. Designated clean-up days for volunteers. Memorial donation list of pre-approved benches, shrubs, trees, etc. as a funding source, so people can memorialize loved ones.	2/4/2020 5:39 PM
80	Anything that invites people to get outside, be active and appreciate nature without killing it. Maybe hosting family movie nights. I like being out in nature at night but parks are usually closed by dusk.	2/4/2020 2:49 PM
81	Would love to see this as an uninterrupted nature park. I feel we have plenty of sport fields in this area already as well as hunting areas and hope the park does not include them.	2/4/2020 12:02 PM
82	Consider a building operated and maintained by the local Historical Society who would ensure the preservation of the local history, offer programs and work with with Parks & Rec. Dept.	2/4/2020 8:55 AM
83	large fishing ponds for kids, disabled veterans	2/4/2020 5:26 AM
84	You have space in existing structure, so no need for community building.	2/3/2020 2:44 PM



### Q15 In regards to Detweiler Park which of the following ecologically-driven facilities and activities should be considered for the park?

Answered: 488 Skipped: 115



	YES	NO	DO NOT KNOW	TOTAL	WEIGHTED AVERAGE
Eco-Restoration Plantings (e.g. Wildflower Meadows, Invasive Species Removal)	85.84% 406	5.50% 26	8.67% 41	473	93.98
Environmental Interpretation (e.g. wetlands; watersheds; plants; nature studying; bird watching)	84.65% 397	7.46% 35	7.89% 37	469	91.90
Passive Solar Orientation for Buildings	62.86% 286	12.53% 57	24.62% 112	455	83.38
Demonstration Stormwater Best Management Practices Garden (e.g. raingarden, vegetated swale, porous paving)	66.30% 303	13.57% 62	20.13% 92	457	83.01
Composting Toilets	67.24% 314	13.92% 65	18.84% 88	467	82.85
Rainwater Cisterns	59.33% 267	14.89% 67	25.78% 116	450	79.94
Photo Voltaic Solar-Power for Buildings	53.15% 236	13.51% 60	33.33% 148	444	79.73
Grey Water Processing for Buildings	50.11% 222	13.32% 59	36.57% 162	443	79.00
Water Quality Study Area / Outdoor Lab	54.57% 239	15.75% 69	29.68% 130	438	77.60
Wind Trees / Small Windmills	40.89% 184	30.22% 136	28.89% 130	450	57.50

## Detweiler Park Public Opinion Survey

#	OTHER (PLEASE SPECIFY)	DATE
1	I think it is very important that the Park remains a natural wildlife habitat. We have paved other areas and parks. It is a great balance of fields, woods, and water life. The paths are great for hiking and observing wildlife. It is nice to get away from paving and buildings. Allow the park to remain a natural wildlife habitat.	9/21/2020 6:43 PM
2	What does the wildlife of the park want?	9/21/2020 1:38 PM
3	None of the items above are needed. They have not been missed for decades - what would possess you to believe they are needed now?	7/14/2020 4:44 PM
4	Personally, I would hope that the powers that be keep the area from becoming just another township park with baseball fields, playgrounds and such. We need areas like this for outdoor education. Link	7/11/2020 1:23 PM
5	Prefer that there is not a lot of building construction.	7/4/2020 11:50 AM
6	Really want some different things, like an area designated for different kinds of bird houses, a section with various Peace poles, a shallow water basin for ice skating in the winter, sections of different flowers/plants.....think outside of the usual nature stuff. Use artists in your planning.	6/27/2020 10:20 PM
7	Preservation or enhancement of the large open fields, which are a unique attribute of the park. Transitional edge planting between the field and woods.	6/26/2020 9:49 PM
8	Stable for overnight guests and exposure for children to the world of horses Guided Horseback riding rentals with environmental stations along the route to stop and hold environmental discussions	6/25/2020 6:14 PM
9	Wind trees/windmills are not compatible with bird watching.	6/25/2020 1:04 PM
10	I'm not positive what all of these are but as long as you are using the land for good, is a good thing overall.	6/25/2020 12:31 PM
11	Studies on the effects of climate change on the park ecosystem.	6/25/2020 10:58 AM
12	The main purpose of this area should not be a peoples park with outdoor equipment, disc golf or such improvements. Can we let one area be a nature area and just give people the opportunity to enjoy nature in an open green area as it is. If they want these other amenities, let them partake of such at another park. I think we need green spaces that show the diversity of animals in their habitat.	6/25/2020 10:57 AM
13	Anything along these lines is great. Eco friendly is fantastic. It would be great for it all then to become a demonstration and example (show the on going savings and benefits through interactivity) that is open for the wider community to learn from -- how can this not just be good for this park and the park's footprint, but help to drive conversations and actions in central PA to move to more eco-friendly decisions across our region?	6/16/2020 3:39 PM
14	Many of the above listed activities would be great and appropriate for a Conservation District to share with the public as learning tools and showing best practices. I answered no in some cases, because it would depend on how and where those were carried out, and whether or not they could be restricted to areas near the Conservation District building, for example, where there has already been human impact and disturbance. Again, though, it will be wonderful if large parts of the park can be kept just for the wildlife, with us, the humans, being able to come by to see them and learn about them by passive observation and walking by or sitting nearby. The more we chop up woodlands and meadows into smaller tracts, the harder we make it for many species of other animals to use these spaces to live and thrive. Detweiler Park, with its more removed location and relative isolation, has an incredibly unique opportunity here, to preserve that quality of wildlife observation and passive outdoor education and recreation. In this stressful day and age, a place like Detweiler Park, with its large, unbroken meadows and woods and streams, is a crown jewel in our landscapes.	5/18/2020 12:07 PM
15	I am a retired professor of Environmental Studies at Dickinson College and have taken my students every year(approx. 2000-2015) on field trips to the Dauphin County SWCD and Coop Extension Bldg. Focus on rainwater runoff and management as well as land use planning. Interested in expanding education facilities/opportunities for both K-12 and college-level instruction.	5/12/2020 3:50 PM
16	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices lin park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three	5/12/2020 9:13 AM

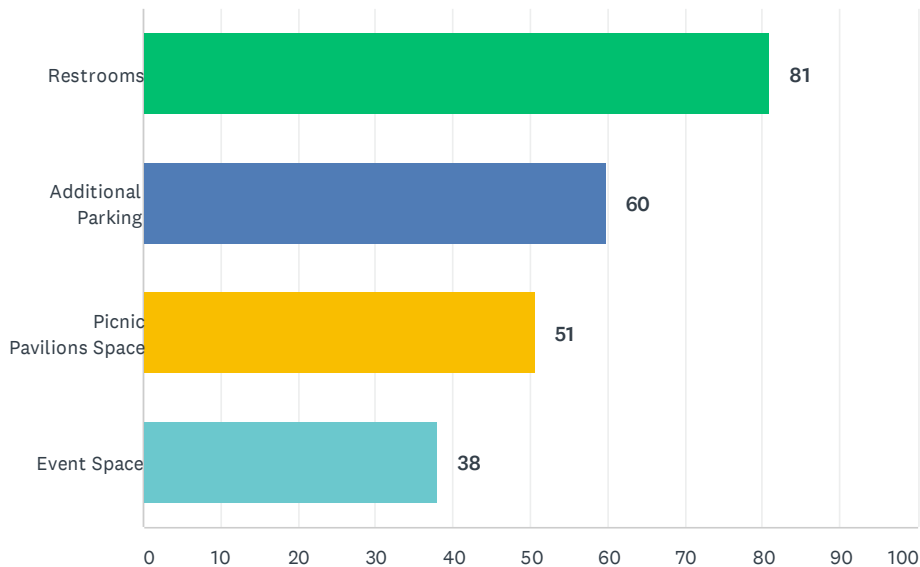
## Detweiler Park Public Opinion Survey

commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.

17	The less buildings the better do as a progressive on yearly demand ,Less building less maintenance from the tax payer , start with one pavilion one parking lot one bathroom add on as needed.	5/11/2020 6:51 PM
18	yeah you can teach the herd some things that may stick !!!	5/11/2020 12:47 PM
19	Install Monarch butterfly food source planting of milkweed plants ( <i>Asclepias tuberosa</i> , <i>A. syriaca</i> , and <i>A. speciosa</i> .. ALSO - if any identification placards are installed on literature or plant ID markers or boards make sure that all species are PROPERLY identified with correct common name followed by the PROPER use of scientific name using ITALICS with the genus name capitalized and the specie name in lower case such as the following: Common Milkweed, ( in ITALICS unavailable on this form ) <i>Asclepias syriaca</i> . As a biologist I am very disturbed when these rules of listing scientific names on public use are not honored and followed . Carolus Linneaus is turning over in his grave !	5/11/2020 10:39 AM
20	I checked no for anything to do with buildings since I am hoping that buildings would not be part of the plan for the park. Perhaps toilets would be needed and then use composting toilets.	5/11/2020 9:20 AM
21	DEFINITLY NO, NO, NO TREE LUMBERING - THEY DO THIS IN OUR AREA IT'S AN AWFUL SITE FOR YEARS -WOOD DEBRIE, BRIERS, WILD CHOKING GRASSES. PLEASE, PLEASE DON'T DO THIS!	3/1/2020 10:48 AM
22	minimal to no building construction, no need for solar or windmill, no building to use the energy, leave natural, only trails for people to get deep into the woods	2/28/2020 10:55 AM
23	Not sure - within reason without taking away the natural beauty of it.	2/21/2020 2:24 PM
24	Stormwater BMPs should be incorporated in facilities, e.g. parking lots and trail runoff controls.	2/6/2020 5:39 PM
25	Do not need wind mills killing birds!	2/6/2020 12:22 AM
26	Invasive plant removal and replacement with natives. Meadow management practices to encourage healthy butterfly habitat. Perhaps even certified habitats such as Master Gardener's Pollinator-Friendly, Manada's or Monarch Watch's. Permaculture food forest.	2/4/2020 5:39 PM
27	Please keep the milkweed for butterflies on the old landing strip area	2/4/2020 4:19 PM
28	Leave park in natural state as much as possible. YOU DO NEED CONTROLLED BURNOFFS! I fear one dry year and a spark.	2/4/2020 5:26 AM
29	Impact of human population and human population growth on ecosystems. Impact of capitalism and its need for constant growth (trying for infinite growth on a finite planet is insane).	2/3/2020 2:44 PM

### Q16 In general, how important do you feel the following amenities / facilities are for a better and more comfortable experience at Detweiler Park?

Answered: 496 Skipped: 107



	VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT/UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	DO NOT KNOW	TOTAL	WEIC AVEF
Restrooms	50.92% 250	28.31% 139	14.26% 70	3.87% 19	1.83% 9	0.81% 4	491	
Additional Parking	13.40% 65	32.99% 160	30.72% 149	11.75% 57	5.57% 27	5.57% 27	485	
Picnic Pavilions Space	10.70% 52	25.10% 122	33.74% 164	13.58% 66	15.02% 73	1.85% 9	486	
Event Space	5.58% 27	13.43% 65	29.75% 144	25.62% 124	22.52% 109	3.10% 15	484	

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#	OTHER (PLEASE SPECIFY)	DATE
1	Y do I have 2 enter a comment?	7/27/2020 11:13 AM
2	Parking is adequate. We all know the parking is sufficient.	7/14/2020 4:44 PM
3	additional parking would be needed depending on projects approved such as a performing art stage.	7/5/2020 5:05 PM
4	Picnic pavilions should have a playground and restrooms nearby	7/1/2020 6:13 PM
5	Additional parking nor needed if people can use the conservation district parking when they are closed	6/27/2020 4:42 PM
6	The additional parking should be at another location or 2 to provide better year round access to the different areas of the park.	6/26/2020 9:49 PM
7	I think the park should remain mostly natural.	6/25/2020 10:56 PM
8	Prefer Detweiler because it's less crowded than other spots (for example, Wildwood). I think the minimum amount of amenities will keep the park clean and uncrowded.	6/25/2020 2:26 PM
9	Glad you added trash cans in different areas for the dog poo people. Would love for you to add some signs "Dogs must be leashed" or "You pick up after your dog at home, you pick up after your dog here".	6/25/2020 12:31 PM
10	Keep park natural, you got a gem	6/25/2020 12:27 PM
11	A place to read or eat lunch and listen to nature would be good. Allow people to enjoy the sounds of the outdoors without interference of day to day "noise".	6/25/2020 10:57 AM
12	None	6/25/2020 10:50 AM
13	Restrooms would be nice only if other amenities were added. People tend to use the woods and don't clean up after themselves, which is annoying. However, I understand the problem with the portable toilet and plastic waste bags. More trashcans might reduce the amount of trash I have seen due to the increased number of people during the pandemic.	6/6/2020 7:06 PM
14	If Detweiler puts in picnic tables, maybe other than down at the parking lot by the District office building, there will be problems with trash and animals getting into trash in the park. If you put in a dog park, there will be increased noise and reduced wildlife, and threats to wildlife, because people walking dogs rarely stay where they're "supposed to". Yes, it's a park and not a wildlife refuge, but why couldn't a park be part "semi-wildlife-refuge," where the humans are the guests and come to learn and observe, instead of dominate...?	5/18/2020 12:07 PM
15	See above.	5/12/2020 3:50 PM
16	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
17	A few benches on the longer trails	5/4/2020 1:38 PM
18	I think a dog park would make Detweiler Park extremely more enjoyable.	3/4/2020 2:54 PM
19	Na	3/1/2020 11:34 PM
20	KEEP SMALL, SIMPLE UNOBTRUSSIVE	3/1/2020 10:48 AM
21	Na	2/27/2020 8:21 PM
22	I think if too much is offered, it will become too crowded and lose it's natural appeal/beauty.	2/21/2020 2:24 PM
23	X	2/11/2020 8:19 PM
24	IT'S A NATURAL AREA--THE VERY MOST IMPORTANT AMENITIES ARE QUALITY NATURAL AREAS.	2/7/2020 12:55 PM
25	Ports potties are fine	2/6/2020 11:35 AM
26	Very few restrooms and mainly near the parking area.	2/6/2020 12:22 AM
27	I think the land/area would be great for smaller outdoor concerts. The airstrip main field is HUGE. The main house could be a great setting for weddings/large corporate events. Plenty of	2/4/2020 8:07 PM

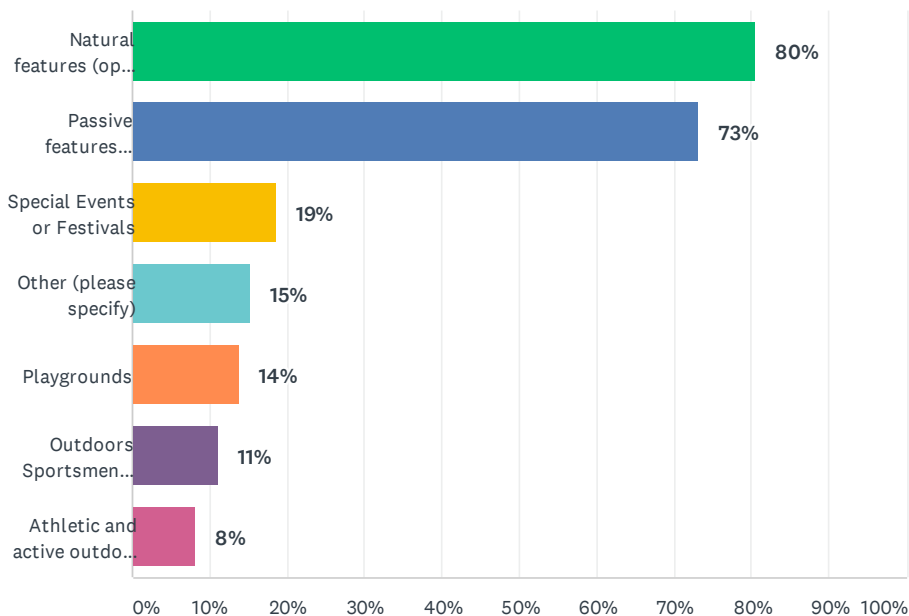
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space and cover if needed. It's sad to see the work they put it into for it sit empty. Rather than look for a tenant - look for renting it for events and creating revenue for it. Great location...great views...mountains - water - nature. Create a reason for them to come...they will. 5k/10k runs. Mud runs?

28	Trash cans	2/4/2020 7:31 PM
29	Please make amenities that use sustainable energy and build with environmentally friendly materials. Kudos on existing paper maps at entrance. Programming will be an amazing addition. Love the idea of a dark sky astronomy program in the meadow. Love the idea of partnering with organizations who will take ownership in terms of stewardship and volunteer management.	2/4/2020 5:39 PM
30	It's about enjoying nature,picnics bring trash and pavillions encourage night hang out vandalism	2/4/2020 4:19 PM
31	Chairs/benches at various areas places throughout park just to enjoy nature.	2/4/2020 12:02 PM
32	Keep restrooms, pavillions, trash recepticals only at trail head by parking area. One bicycle trail around perimeter of park and hidden from walking trails as much as possible is enough.	2/4/2020 5:26 AM
33	anything that is added must be in accordance with the needs of the local ecosystem before the needs of the human population.	2/3/2020 2:44 PM

### Q17 What are your favorite types of park features / what character would you like to see at Detweiler Park? (Please check all that apply.)

Answered: 492 Skipped: 111



ANSWER CHOICES	RESPONSES	
Natural features (open space, wildlife habitat, outdoor education, etc.)	80%	396
Passive features (trails, benches, picnic facilities, etc.)	73%	360
Special Events or Festivals	19%	92
Other (please specify)	15%	75
Playgrounds	14%	68
Outdoors Sportsmen Activities (Hunting, Fishing, Trapping, etc.)	11%	55
Athletic and active outdoor activities (ball fields, courts, etc.)	8%	40
Total Respondents: 492		

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#	OTHER (PLEASE SPECIFY)	DATE
1	We have state game lands for hunting and fishing etc. There are plenty of parks with picnic facilities. Allow this park to remain natural and as untouched as possible. There are enough parks with fields and playgrounds. It does not need to be at every park.	9/21/2020 6:43 PM
2	All the kids I know like trail. Playgrounds do not educate kids. Time in the woods with parents taking about what they see is what kids need. Trails provide all of us with exercise. Parents sitting on a bench with a cell phone provides no appreciation of nature.	9/21/2020 1:38 PM
3	Bike trails and wildflower meadows	9/14/2020 1:31 PM
4	?	7/27/2020 11:13 AM
5	None of the above. Leave nature natural	7/14/2020 4:44 PM
6	Bike trails, skate park	7/6/2020 2:29 PM
7	keep it natural as possible	7/5/2020 5:05 PM
8	P	6/28/2020 8:24 PM
9	The walking trails and quiet places to sit on benches or Adirondak chairs.	6/28/2020 2:36 PM
10	maintain the natural features of this area, that is what the Detweilers wanted and it really is the best use of this land.	6/28/2020 10:48 AM
11	Fishing only	6/27/2020 4:42 PM
12	Limited development while enhancing the accessibility and enjoyment of the natural setting is most important. If alternate access is to be provided from Rt.225, there should be no development that would result in large influxes of cars to and from the park that would cause traffic safety issues.	6/26/2020 9:49 PM
13	Bicycling/mountain biking areas, fenced dog park area	6/26/2020 10:01 AM
14	Walking, jogging, biking trails and exercise stations	6/26/2020 7:17 AM
15	Single track mountain bike trails laid out in a tiered system from beginner near the trail head to the most challenging farthest from the trail head.	6/25/2020 9:54 PM
16	There are tens of thousands of acres of state game land. The park does not need to be a super game land for shooting sports. Limited hunting is necessary for ecological balance, but in hunting season parks need to be a refuge for people to be out without fear of hunting activities.	6/25/2020 9:24 PM
17	Bike trails	6/25/2020 6:41 PM
18	PLEASE think of mountain bikers and build some mountain bike friendly features! We have a HUGE need for this in our area - it is some an untapped asset, and could be such an economic and community driver!	6/25/2020 6:11 PM
19	Keep as natural as possible the way it was meant to be.	6/25/2020 2:48 PM
20	This park should not become an area for the congregation of folks who don't know how to behave in a park setting. Most people do not appreciate a pristine, lonely setting and will ruin the park with obnoxious behavior.	6/25/2020 1:17 PM
21	The only special event would be maybe hayrides around Halloween. Otherwise, keep it natural!	6/25/2020 12:31 PM
22	Keep natural, Wildwood less than 8 miles away	6/25/2020 12:27 PM
23	Mountain biking trails	6/25/2020 12:19 PM
24	disc golf	6/25/2020 12:17 PM
25	None	6/25/2020 10:50 AM
26	Dog park	6/25/2020 10:23 AM
27	Playgrounds that are built with natural features could be great. Re: active outdoor activities - yes, the "non traditional" sort. There are many places for stick-and-ball type activities in the region. This is an opportunity to build something for other people.	6/16/2020 3:39 PM
28	No hunting, fishing, trapping....PLEASE! There are plenty of places if you want to do that. Playgrounds might be nice but again, there are other playgrounds in the area.	6/6/2020 7:06 PM
29	Animals	6/3/2020 7:48 PM
30	Mountain bike trails would be nice.	5/20/2020 11:33 AM
31	Public education about passive recreation is important, but of course doing this in such a way	5/18/2020 12:07 PM



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as to not degrade habitats and disrupt them extensively would be an important consideration, especially during, for example, birds' nesting season. It's important for people to see birds in their breeding and nesting activities, to learn about them. But that has to be done in a way that respects the needs of those birds. In the next question you asked about including such an interpretive programs. That would depend on how it was done, how much such activities intruded into nesting areas, and with what frequency...

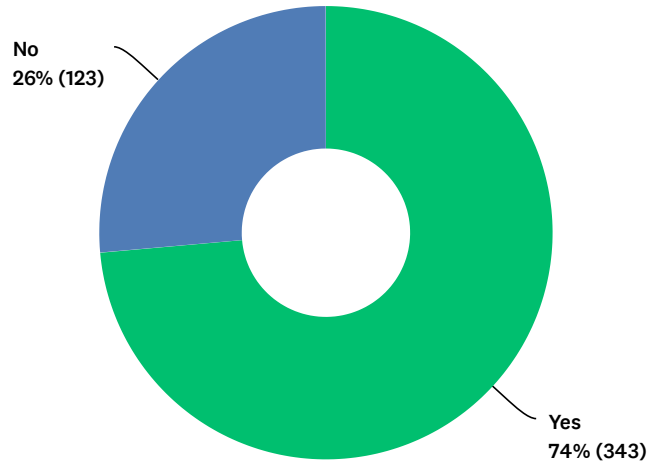
32	I accept the development of athletic facilities, playgrounds, and special events facilities provided they are "LOW IMPACT" I encourage hunting and fishing. Trapping could be problematic.	5/14/2020 4:04 PM
33	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
34	Keep it wild. The park already gets way too crowded. More parking would be a disaster	5/11/2020 9:55 PM
35	signage for educational opportunities only	5/11/2020 6:51 PM
36	Please don't put ball fields there. We have enough of those kinds of parks.	5/11/2020 2:42 PM
37	again with the freaking trapping ... oh let pet dogs step on them ... yeah you trap for rabies then you have bat houses ... duhhhhh	5/11/2020 12:47 PM
38	Absolutely trails - but not sure of the need for picnic facilities	5/11/2020 9:20 AM
39	The park should be conserved at all cost. There is so much amazing wildlife and native bush at Detweiler that it'd be unfair to disrupt the natural state it's in. Enhancing some trails would allow for the public to enjoy the beauty of the park but in the least invasive way possible. A public restroom would be a nice addition but isn't even necessary. Boyd Big Tree & Joseph E Ibberson are perfect examples of how land should be enjoyed by the public. Stony Mountain (state game land 211) is even better because it is so expansive and connects to multiple trails in the area (AT, Horseshoe trail) but would benefit from better trail preservation and signage.	5/10/2020 8:25 PM
40	Bigfoot	5/2/2020 8:47 PM
41	Again - indoor facilities which could be used tear round would be welcomed in my opinion...we already do have some very nice outdoor parks - some of the best in the area actually - but they are definitely not "overused" in my opinion so why do we need more?? Improve the ones currently in place if anyone feels the need	4/28/2020 3:11 PM
42	Would be nice to keep the quiet feel this park so naturally offers already. An educational component would be nice to incorporate in a subtle way for teaching about wildlife and sustainable living.	4/28/2020 2:59 PM
43	Biking	4/7/2020 2:13 AM
44	Shenk park in Hershey recently installed a disk golf course and it is very popular with residents. A very nice disk golf course could be built on this beautiful property.	3/29/2020 7:02 PM
45	Mountain bike trails	3/27/2020 11:13 PM
46	Bike trails	3/3/2020 5:35 AM
47	Na	3/1/2020 11:34 PM
48	Mountian Bike Trails	2/28/2020 4:30 PM
49	N/a	2/27/2020 8:58 PM
50	food forest	2/25/2020 6:57 PM
51	Leave it the way it is. Those of us who go there want peace and quiet.	2/24/2020 11:43 AM
52	Mountain biking	2/14/2020 4:15 PM
53	Mountain Bike Trails that can also be used for walking/hiking, and dog walking (assuming Dogs are allowed int he park) as well. These do not need to be separate facilities, if designed by an experienced organization like SAMBA, trails can properly accommodate all of the above users. OF course if there is a desire to keep them separate, I am sure that can be designed too.	2/14/2020 3:11 PM
54	bicycle trails	2/14/2020 12:09 AM

## Detweiler Park Public Opinion Survey

55	Bike trails	2/13/2020 11:08 PM
56	Mountain biking trails	2/12/2020 10:35 PM
57	Having additional multi-use single-track trails is huge. These can be utilized for mountain biking, hiking, trail running. Local organizations like SAMBA can not only design & build these trails but also maintain them. PICL can also volunteer hundreds of hours on these trails	2/12/2020 4:49 PM
58	Cyclocross races	2/12/2020 4:25 PM
59	mountain bike trails	2/12/2020 2:12 PM
60	Mountain bike trails	2/12/2020 12:17 PM
61	Bike trail systems	2/12/2020 7:10 AM
62	Mountain bike single track	2/12/2020 3:45 AM
63	Mountain bike trails	2/12/2020 2:44 AM
64	Bike trails	2/11/2020 10:54 PM
65	Bike trails	2/11/2020 9:17 PM
66	Mountain Bike trails, pump track, jumps	2/11/2020 8:50 PM
67	X	2/11/2020 8:19 PM
68	Mountain bike trails	2/11/2020 8:02 PM
69	Biking trails to get youth engaged with nature and exercise through organizations such SAMBA, PICL/NICA	2/11/2020 8:02 PM
70	Disc golf	2/9/2020 5:58 PM
71	To keep with Mr. Detweiler's intent, there should be minimal development of facilities. The most unique part of the park is the large meadows with minimal mowing. These should be kept, with possibly some trails going through or across them to allow for shorter loop trail routes.	2/6/2020 5:39 PM
72	Interpretive kiosks at the trailhead could give visitors a view of where the park environs fit into the greater ecosystem. I would like to see signage on the trails limited to safety notices or location/directions. I don't want Detweiler Park to be a place to rent a picnic pavilion or participate in "adrenaline" activities. Those are available at other venues. I envision a place to find peace and quiet.	2/5/2020 3:10 PM
73	My lord no festivals with loud music and carrying on to disturb the peaceful forest	2/4/2020 4:19 PM
74	walking trails are sufficient. Don't overcrowd the park. Only airfield area is under utilized	2/4/2020 5:26 AM
75	Multi-use hiking, mountain biking, horse trails	2/3/2020 7:08 PM

Q18 Would you like to see the wooded and meadow area in the park included as part of a passive recreation area with interpretive / educational opportunities?

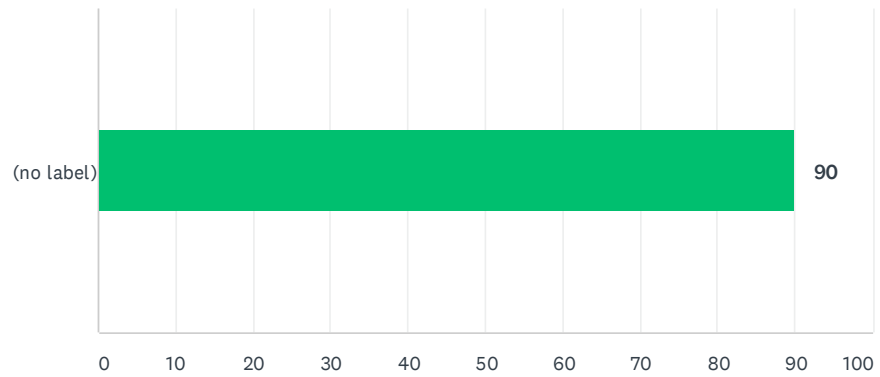
Answered: 466 Skipped: 137



ANSWER CHOICES	RESPONSES	
Yes	74%	343
No	26%	123
TOTAL		466

### Q19 In general, how important is it to have peaceful quiet areas in Detweiler Park?

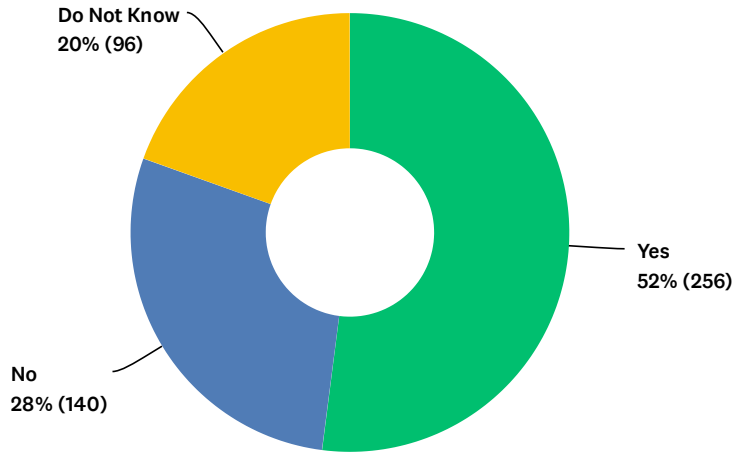
Answered: 492 Skipped: 111



	VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT/UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	DO NOT KNOW	TOTAL	WEIGHTE AVERAGE
(no label)	73.78% 363	14.43% 71	8.33% 41	2.24% 11	0.41% 2	0.81% 4	492	90.0

### Q20 Do you feel the peaceful quiet setting of Detweiler Park can be preserved while providing for more actives, active or passive?

Answered: 492 Skipped: 111



ANSWER CHOICES	RESPONSES	
Yes	52%	256
No	28%	140
Do Not Know	20%	96
TOTAL		492

## Q21 What do you like most about Detweiler Park?

Answered: 347 Skipped: 256

## Detweiler Park Public Opinion Survey

#	RESPONSES	DATE
1	Quiet	9/22/2020 12:28 PM
2	I like that it's scaled more towards families who are seeking outdoor walks and exercise. There are many local parks with playgrounds and other activities it is nice to have a park that allows you to go on a walk when the parking lot is full and see no one else. I look at this park as an escape from the hustle bustle and like all the nature and wildlife I see when I'm there 3+ times a week.	9/21/2020 7:33 PM
3	It is a place to get exercise. It is peaceful after a stressful day of work. It is an opportunity to observe nature.	9/21/2020 6:43 PM
4	That's it's quiet and peaceful. I like that it's surrounded by so much nature.	9/21/2020 6:31 PM
5	Plenty of room to walk. Peaceful	9/21/2020 6:15 PM
6	The quietness and the openness	9/21/2020 6:11 PM
7	The Quiet	9/21/2020 6:04 PM
8	Natural setting. Please do not change.	9/21/2020 2:57 PM
9	The peace and quiet. All the fauna. I've seen rabbits, squirrels, snakes, chipmunks, deer-as many as 40 in a two hour period, and bears during the day on 4 occasions and too many birds to name. If this park is further developed, all those creatures will go farther into the forest on unprotected land and disappear after the first hunting season.	9/21/2020 2:38 PM
10	It's tranquil and the outdoor people that like a quite dirt path.	9/21/2020 1:38 PM
11	Quiet, peaceful, safe for nature and nature lovers who do not litter ,smoke on the trails, (creating fire hazard) deface property and who also respect the Prubate Property boundaries.	9/21/2020 1:18 PM
12	Varied habitat provides opportunities for a broad list of wildlife	9/20/2020 10:53 AM
13	deer sightings...and being immersed in nature surrounded by trees, chirping birds, deer... the quiet, rustic, dirt trails w/no borders, so pretty just straight w/ line of trees on either side. I love the large areas btw trails bc you dont see many other ppl and it gives animals areas to feel safe.	9/18/2020 8:22 PM
14	That its not terribly developed and it isn't over run with people. Abundant birds and wildlife	9/16/2020 8:05 PM
15	The pine tree grove and the large open field	9/14/2020 1:31 PM
16	The beauty	9/11/2020 5:34 PM
17	The space. You rarely pass people and it's quiet.	9/11/2020 11:35 AM
18	Can't say as I have never been in the park.	9/1/2020 9:58 AM
19	The different natural areas - meadow, pine woods, forests - very peaceful	8/21/2020 4:23 PM
20	We like that it is quiet!! We also really like the well placed seating areas and areas left untouched (meadow, wooded areas) for native plants, animals, and insects.	8/13/2020 1:58 PM
21	Perfect 4 hiking	7/27/2020 11:13 AM
22	Not many people are there and it's quiet.	7/22/2020 11:29 AM
23	Its natural setting untouched by people.	7/14/2020 4:44 PM
24	Shaded, wooded trails with a creek to play in. Dog friendly	7/14/2020 4:41 AM
25	Quiet. Rare around this area with highways lacing all over.	7/11/2020 1:23 PM
26	Great opportunities for future passive activities	7/10/2020 10:35 AM
27	Peaceful variety of landscape. Meadows, mountains, pond atmosphere.	7/9/2020 6:55 AM
28	I like how simple it is and how natural it is. I also enjoy that there is not hunting. I prefer as little human disturbance as possible.	7/8/2020 7:05 PM
29	Large and expansive, not like smaller parks/playgrounds.	7/8/2020 9:03 AM
30	I like that it has multiple different terrains. It has mountain, meadows, and streams that allow for a variety of activity's	7/6/2020 2:29 PM
31	easy access from Harrisburg	7/6/2020 11:26 AM
32	Size and convenience	7/5/2020 5:22 PM
33	easy access, close to home.	7/5/2020 5:05 PM

## Detweiler Park Public Opinion Survey

34	Variety - hiking trails, trees, open meadow for stargazing at night (organized by park)	7/5/2020 11:32 AM
35	Serene setting, variety of trails	7/5/2020 11:18 AM
36	Lots of marked trails	7/5/2020 9:26 AM
37	Potential for more breeding birds.	7/5/2020 8:27 AM
38	The trails are doable for my family. They are quiet where we can hear nature around us. The trails go through different areas (fields, woods, stream, etc.).	7/5/2020 1:02 AM
39	Beautiful hiking trails.	7/4/2020 11:47 PM
40	its potential	7/4/2020 11:38 PM
41	trees	7/4/2020 3:12 PM
42	I like it when I want to hike but something easy when it's too cold or hot.	7/4/2020 3:12 PM
43	That it is not built up and it is a quiet place to hike.	7/4/2020 11:50 AM
44	It is quiet and peaceful.	7/4/2020 7:25 AM
45	It is quiet and peaceful. I like that it is not full of people.	7/4/2020 1:59 AM
46	Walking trails	7/4/2020 12:26 AM
47	The presence of the past.	7/3/2020 8:17 PM
48	It's quiet and nature is the focus, not entertainment activities. I feel safe walking my dog there alone. No one is hunting or trapping and posing a safety issue.	7/3/2020 8:50 AM
49	It's beauty	7/2/2020 10:20 PM
50	Quiet, nice trail walking options and open fields, uncluttered by structures.	7/2/2020 9:56 PM
51	Woods	7/2/2020 6:07 PM
52	I like the contrast between natural woods and mowed grass/ meadow. I like to sit on a bench and watch birds in the grass area.	7/1/2020 6:13 PM
53	It is natural and quiet.	7/1/2020 5:54 PM
54	proximity	7/1/2020 4:31 PM
55	That is is natural, uninterrupted, and beautiful.	6/30/2020 4:04 PM
56	The trails around the meadows are a truly unique and beautiful feature of Detweiler. The wide trails are great for dog walking and the park is so large that it does not feel crowded or heavily trafficked.	6/30/2020 1:45 PM
57	It gives us the ability to get away and go out in a natural setting not too far from home to take a break, relax, exercise, and take the dog for a better walk than we could in our apartment complex	6/29/2020 1:12 PM
58	How peaceful and serene it is. This is a big difference from places like Wildwood Park where there is a lot of highway noise and truck idling and acceleration noise from the trucking company buildings and lots off Industrial Road. Activities would have to be set aside from the most peaceful quiet areas of Detweiler Park to preserve this feature. The wide walking trails were very well maintained!	6/29/2020 9:39 AM
59	Possibilites for multi use trail system for children mountain biking and hiking	6/28/2020 8:24 PM
60	nice place to hike and look for birds	6/28/2020 6:33 PM
61	The quiet, shaded and wide trails, birdsong and wildlife	6/28/2020 2:36 PM
62	Variety of hiking paths.	6/28/2020 2:04 PM
63	Natural setting	6/28/2020 12:05 PM
64	The range of hiking experiences- meadows, flat trails, and more challenging climbs and should we ever get some decent snow- the trails would be perfect for skiing.	6/28/2020 11:29 AM
65	I grew up in the area, I've explored this locate and many other natural areas extensively. I knew the Detweilers and did much work for them and other neighbors to this area. They loved the natural aspects of their land and its wonderful to see it preserved as it now is and living near by it is equally wonderful to be able to show this area to my family and to talk with them about its history, etc.	6/28/2020 10:48 AM
66	Quiet	6/28/2020 9:52 AM
67	The natural features and lack of development.	6/27/2020 11:20 PM



## Detweiler Park Public Opinion Survey

68	The peaceful serenity and beautiful trails.	6/27/2020 5:20 PM
69	Quiet, low-key oriented to trails and nature	6/27/2020 4:42 PM
70	The hiking trails in the woods.	6/27/2020 11:39 AM
71	The large open fields and the views from the upper sides of them.	6/26/2020 9:49 PM
72	That we have another Dauphin Co. area saved from developed.	6/26/2020 8:28 PM
73	The lack of development showcases the beauty of the property.	6/26/2020 8:19 PM
74	Birding opportunities and solitude	6/26/2020 5:24 PM
75	Open canvas to create	6/26/2020 3:32 PM
76	Quiet hiking trails, natural areas.	6/26/2020 2:38 PM
77	Location Easy access with good parking Variety	6/26/2020 1:48 PM
78	It is quiet!	6/26/2020 10:41 AM
79	Spacious area, variety of landscapes	6/26/2020 10:01 AM
80	Proximity to home and variety of trails.	6/26/2020 9:03 AM
81	Nature	6/26/2020 7:17 AM
82	Accessible, open spaces with vistas	6/26/2020 5:57 AM
83	Beautiful setting.	6/26/2020 12:27 AM
84	Good trail markings, clean, wide trails, quiet and peaceful,	6/25/2020 11:34 PM
85	all the trees and natural beauty; it was quiet and not crowded	6/25/2020 10:56 PM
86	nice trails	6/25/2020 9:30 PM
87	The hiking trails and quiet setting away from the bustle of most of the Dauphin County Parks	6/25/2020 9:24 PM
88	How natural it is. I like having access to a safe undeveloped parkland	6/25/2020 9:09 PM
89	How quiet it is.	6/25/2020 9:00 PM
90	Hiking trails but they could be better marked	6/25/2020 8:42 PM
91	The peaceful and quiet setting with mixed hiking trails.	6/25/2020 7:33 PM
92	Away from the city, low volume of use	6/25/2020 7:16 PM
93	Lots of trails.	6/25/2020 7:13 PM
94	Lots of natural undeveloped area	6/25/2020 6:18 PM
95	The quiet natural beauty of the open fields and timberland. Events and festivals would destroy the solitude of Detweiler Park. Fort Hunter is a sufficient facility for festivals and events.	6/25/2020 6:14 PM
96	Natural beauty and maintaining it's original look	6/25/2020 6:11 PM
97	It's natural simplicity. Keep it simple. Nature will provide the refreshment, relaxation, and stimulation we need.	6/25/2020 5:08 PM
98	The trails	6/25/2020 5:00 PM
99	nature at its finest	6/25/2020 4:34 PM
100	Nature	6/25/2020 4:03 PM
101	A large space and trails.	6/25/2020 4:00 PM
102	Biological diversity.	6/25/2020 3:56 PM
103	Hiking trails and wildlife	6/25/2020 3:54 PM
104	proximity to home. Hiking trails	6/25/2020 3:51 PM
105	Location and trails	6/25/2020 3:46 PM
106	The locality, the peacefulness, and the preserved natural setting.	6/25/2020 3:41 PM
107	Unspoiled woodland	6/25/2020 3:30 PM
108	The quiet	6/25/2020 3:24 PM
109	Trails, woods, undisturbed natural area	6/25/2020 3:20 PM

## Detweiler Park Public Opinion Survey

110	Mixture of terrain and natural areas	6/25/2020 3:11 PM
111	size and location	6/25/2020 2:58 PM
112	It's quiet and has several natural habitat areas, and a conservation values history.	6/25/2020 2:57 PM
113	That it is natural and quiet.	6/25/2020 2:48 PM
114	Just the natural beauty and wildlife.	6/25/2020 2:47 PM
115	It's natural beauty.	6/25/2020 2:38 PM
116	The quiet setting	6/25/2020 2:26 PM
117	Not crowded, peaceful	6/25/2020 2:12 PM
118	Nothing. Please revert it back to its original agricultural use and STOP using taxpayer funds!	6/25/2020 1:49 PM
119	Nearness to city	6/25/2020 1:42 PM
120	The openness and peacefulness	6/25/2020 1:25 PM
121	It's pristine and should remain that way.	6/25/2020 1:17 PM
122	Size, location	6/25/2020 1:16 PM
123	Natural setting well-suited for stress-free hiking and wildlife watching.	6/25/2020 1:16 PM
124	It's big enough to feel like the wilderness without the ability to get lost. Sitting areas.	6/25/2020 1:11 PM
125	Quiet walking trails	6/25/2020 1:07 PM
126	Natural areas and trails	6/25/2020 1:04 PM
127	Peaceful place to enjoy nature.	6/25/2020 12:56 PM
128	The wide trails, the quiet peaceful sounds of nature, the variety of trail environments	6/25/2020 12:54 PM
129	wild nature	6/25/2020 12:53 PM
130	Natural feeling trails	6/25/2020 12:48 PM
131	Proximity	6/25/2020 12:36 PM
132	Enjoy it for hiking the way it is	6/25/2020 12:31 PM
133	I can bring my dog! Unlike some of the other parks. And most of the trails are kept clear and clean. It helps with ticks. The very best thing about Detweiler is there are not as many gnats as some of the other parks. I used to walk at Boyd Big Tree. The gnats are so terrible I stopped walking there. I believe it has to do with the stagnant pond in the middle of the park. I haven't noticed as many gnats at Detweiler. And I love that it's close to home.	6/25/2020 12:31 PM
134	It's natural beauty and showcase of the environment. I don't think much really needs to be changed. It's so tough to find a park that is so peaceful	6/25/2020 12:30 PM
135	The peace setting.	6/25/2020 12:27 PM
136	Wildlife	6/25/2020 12:27 PM
137	Trails, quiet and peaceful	6/25/2020 12:24 PM
138	Its "country setting", a place to relax without hussel & bustle and loud noise.	6/25/2020 12:24 PM
139	Peaceful	6/25/2020 12:20 PM
140	Wide open spaces Hiking trails	6/25/2020 12:19 PM
141	I have never visited the park.	6/25/2020 12:18 PM
142	A lot of space to work with	6/25/2020 12:17 PM
143	The natural/green space	6/25/2020 12:16 PM
144	Got for a good price and should be utilized to make tax revenue with athletic fields	6/25/2020 12:15 PM
145	Quiet trails that are not crowded	6/25/2020 12:14 PM
146	The nature	6/25/2020 12:12 PM
147	The relative quiet compared to Wildwood (next to trucking & highway) and other county parks with athletic fields and other "active-use" facilities.	6/25/2020 11:55 AM
148	Rustic and quiet	6/25/2020 11:43 AM

## Detweiler Park Public Opinion Survey

149	More trails & trails connecting - ADA trails	6/25/2020 11:43 AM
150	Nature	6/25/2020 11:34 AM
151	That it is a quiet serene place to go and just listen and find calm and that the kids can easily hike on their own.	6/25/2020 11:16 AM
152	The fact that it is unspoiled. I would like it to remain that way. We have a great nature center at Wildwood, and don't really need another at Detweiler.	6/25/2020 10:58 AM
153	I have not visited.	6/25/2020 10:57 AM
154	It's natural setting.	6/25/2020 10:54 AM
155	The wild nature, and the berries	6/25/2020 10:50 AM
156	It has a lovely shaded and sunny spot to hike and it's very natural	6/25/2020 10:46 AM
157	The openness, the beautiful trees, wildlife and wooded areas that we are able to walk. It's such a calming soothing environment. I love the benches and chairs that are throughout the park	6/25/2020 10:42 AM
158	Easy access to trails, trails are well maintained, easy to hike. I love the orange chairs placed along the trails at the park!	6/25/2020 10:38 AM
159	Hiking trails	6/25/2020 10:36 AM
160	Nice diversity of trails, close to home, beautiful view of the ridges.	6/25/2020 10:36 AM
161	I enjoy the quiet, the wildlife, and the ability to walk/run/hike miles of trails without seeing many other people. I like that the land is in a natural state and has not been overly developed.	6/25/2020 10:34 AM
162	restful and easily accessible, quiet and not a strenuous hiking experience	6/25/2020 10:30 AM
163	easy hiking	6/25/2020 10:28 AM
164	It's natural beauty	6/25/2020 10:24 AM
165	Peacefulness	6/25/2020 10:23 AM
166	The peaceful, quiet setting	6/25/2020 10:14 AM
167	Don't know	6/25/2020 10:13 AM
168	The promise it holds to provide things that are missing from central PA. The potential is huge for it to be both a wonderful quiet, peaceful, and diverse park that offers great experiences for a range of users and even offers a place for outdoor events to take place that attract participants for weekends that create wonderful drivers for the local economy.	6/16/2020 3:39 PM
169	The peace/quiet/beauty of the park.	6/10/2020 1:36 PM
170	Peaceful tranquility of nature and the animals that live there. It's wonderful.	6/6/2020 7:06 PM
171	Natural unpaved trails	6/3/2020 7:48 PM
172	quiet, peaceful, rustic. uncrowded!!! beautiful wide trails. its just you, the woods and wildlife.	6/2/2020 4:07 PM
173	The trails were well maintained and the park is expansive	5/31/2020 7:16 PM
174	Close to home.	5/31/2020 6:54 PM
175	Peacefulness. The stream and pond. The pines.	5/30/2020 10:16 PM
176	How natural the setting is.	5/27/2020 6:22 PM
177	The interaction with the community for planning	5/27/2020 12:00 PM
178	Being out in nature and enjoying seeing wildlife in the fields	5/25/2020 11:19 AM
179	It's peaceful, not commercial, and nature in its best form	5/24/2020 8:33 PM
180	a small piece of relatively natural land with a peaceful, quiet setting	5/22/2020 7:15 PM
181	Right now it offers a nice outdoor walking area.	5/20/2020 11:33 AM
182	That it is a natural area.	5/18/2020 9:42 PM
183	Its serenity. The opportunity to walk through and experience what is naturally there, without so much human interference and noise and activity. A wonderful breath of fresh air, and not terribly far to drive to.	5/18/2020 12:07 PM
184	The park's "Pennsylvania mountain ecology" and "historical context" where one can temporarily escape from the hustle and bustle our 21st century life styles.	5/14/2020 4:04 PM
185	Passive activities including nature observation and hiking. Not interested in replicating active	5/12/2020 3:50 PM

## Detweiler Park Public Opinion Survey

recreational opportunities available at other county parks (e.g active sports or cultural events not tied to the physical location and history).

186	It is undeveloped. LEAVE IT ALONE. These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
187	solitude	5/11/2020 10:42 PM
188	The various environments: tall pines, fields, etc	5/11/2020 9:55 PM
189	Peacefulness. Beautiful trees and trails.	5/11/2020 9:11 PM
190	Location to AT	5/11/2020 8:48 PM
191	The size and diversity. I have not been to the park yet, first real knowledge of it is from the 2nd Public Meeting via Team broadcast	5/11/2020 8:32 PM
192	Wildlife habitat, nature, hiking only	5/11/2020 8:03 PM
193	location	5/11/2020 6:51 PM
194	Peaceful hiking opportunities and ability to bring dogs. Close to home for us. Various types of terrain and landscape. Butterflies. Deer. Quiet.	5/11/2020 6:21 PM
195	Relaxing.	5/11/2020 2:42 PM
196	Little foot traffic and lots of hiking opportunities, wildlife etc	5/11/2020 1:36 PM
197	to leave most alone ... man always screws it all up with too many rules .. but have cameras to catch the shits leaving trash and destroying all cuz of stupidity ...	5/11/2020 12:47 PM
198	Varied habitat.	5/11/2020 10:39 AM
199	I think it is perfect now and the numbers using it suggests that I am right. We love it just as it is.	5/11/2020 9:20 AM
200	The wide trails and the quiet, uncrowded environment.	5/11/2020 9:11 AM
201	Wide open space	5/11/2020 9:00 AM
202	The wildness of the wooded areas.	5/11/2020 8:42 AM
203	The serenity and innocence it offers. The views, the smells, the sounds and the textures of the park make me reminisce about my childhood as I was able to explore hundreds of acres of land in my backyard without any worries (I grew up in McKean County). And let's not forget what this place offers for your spirit... a simple stroll down the trail of pine trees resets your soul.	5/10/2020 8:25 PM
204	The different views, terrains and trails. You have a wooded area at the beginning with beautiful trail through line trees. Then you have two large fields that are good for running around in. Lastly, the slight hike up the side of the hill is awesome. The park has it all to accommodate all age groups and difficult levels.	5/10/2020 7:52 PM
205	It's a natural area, where you can go and see nature. If you put too much there it'll ruin that.	5/10/2020 12:52 PM
206	Scenery	5/10/2020 10:23 AM
207	It's quiet, peaceful, the trails are nice and wide and well manicured.	5/8/2020 11:26 AM
208	Open spaces	5/6/2020 3:16 PM
209	The peace and quiet	5/6/2020 10:15 AM
210	It's a beautiful setting and birds abound.	5/6/2020 8:59 AM
211	location	5/5/2020 4:06 PM
212	Proximity to my home. Walking trails.	5/5/2020 11:15 AM
213	Quiet serenity and mature trees	5/5/2020 10:17 AM
214	Wildlife habitat, water quality protection and public access	5/4/2020 1:38 PM

## Detweiler Park Public Opinion Survey

215	Location	5/4/2020 3:58 AM
216	The quiet, the wildlife	5/2/2020 9:00 PM
217	Nature	5/2/2020 8:47 PM
218	Feel safe there in the open area to walk	4/30/2020 9:58 AM
219	The quietness and being with nature at its most native and original form... nothing man made.	4/29/2020 11:25 AM
220	It's nice but we have so many nice walking and hiking trails so I really don't see anything new and different that appeals currently...it is also very conveniently located	4/28/2020 3:11 PM
221	Its peaceful beauty within such a close proximity to the city, lots of open space and trails to get away from the hustle and bustle! Oh...and all those trees!!!	4/28/2020 2:59 PM
222	The location and the quietness of the park. Very peaceful	4/27/2020 10:58 PM
223	Wilderness	4/27/2020 10:34 PM
224	Beautiful nature hikes so close to home.	4/27/2020 10:07 PM
225	Low traffic	4/27/2020 9:54 PM
226	Natural, peaceful, hidden treasure	4/27/2020 9:52 PM
227	Accessibility	4/27/2020 9:42 PM
228	Close to home, dog friendly, SAFE, CLEAN	4/27/2020 9:36 PM
229	Variety of trails and settings Peaceful	4/27/2020 9:34 PM
230	The feeling of safety and being comfortable to walk alone.	4/27/2020 9:29 PM
231	Close to home	4/27/2020 9:24 PM
232	Variety of landscape, wildlife, length of trails, maintenance of trails	4/25/2020 10:32 AM
233	no hunting and the natural features	4/22/2020 7:09 PM
234	It's beauty. Please leave it is - ie do not build structures, playgrounds, pavilions, etc. Let it be one of the last places that actually feels natural. If it turns into one of the stereotypical community parks, I will no longer go.	4/21/2020 8:08 PM
235	It is a beautiful, peaceful area. It's a wonderful place to take an easy walk or a more challenging hike.	4/21/2020 8:02 PM
236	I love that it's open and quiet. You're not surrounded by people, or even passing people very often. There can be a full parking lot and you still feel like you're the only one here. I come here every day with my dog, rain or shine. We walk every trail and around the whole perimeter. It's so peaceful and quiet and it would be a shame if that were to be disturbed because the next closest park like that is Pine Grove Furnace.	4/14/2020 4:16 PM
237	the hiking trails and chairs	4/12/2020 10:00 PM
238	The vast array of environments in the parks.	4/12/2020 7:49 PM
239	The hiking trails and the remote feel	4/11/2020 10:56 AM
240	Quiet, beautiful in all seasons and very theraputic	4/2/2020 4:02 PM
241	Close by, nice trails	3/27/2020 11:13 PM
242	The quietness. It is close to my house	3/20/2020 3:49 PM
243	Not crowded, peaceful, most dogs on leash, don't have to worry about dog getting scared of bikes, horses, or crowds. Various terrain including fields, wooded, hills, and flat	3/14/2020 1:39 AM
244	N/A	3/12/2020 1:48 PM
245	Peaceful area to hike, bird and see monarchs. Much quieter than Wildwood.	3/6/2020 5:45 PM
246	location, easy commute	3/5/2020 8:51 PM
247	The fact that all of that land is preserved and cannot be developed. Let's leave it in a natural setting with minimal footprint.	3/5/2020 12:04 PM
248	The peaceful quiet setting. The variety of different settings (meadow, woods, hills, flats)	3/4/2020 7:02 PM
249	I like the accessibility of the trails for those of all ages and abilities.	3/4/2020 2:54 PM
250	It's location	3/3/2020 6:12 PM
251	Kids fishing zone/ hatchery	3/1/2020 11:34 PM

## Detweiler Park Public Opinion Survey

252	QUIET, UNDISTURBED, UNCROWDED AND NATURAL	3/1/2020 10:48 AM
253	Location and boundary with extensive wilderness	2/28/2020 4:30 PM
254	close proximity to Harrisburg for getting more people out on multi use trails to see the wood and nature	2/28/2020 10:55 AM
255	The serenity.	2/28/2020 10:22 AM
256	The natural setting, please keep development to a minimum	2/28/2020 8:03 AM
257	I enjoy the quiet. I also enjoy the well maintained wide trails.	2/28/2020 7:15 AM
258	Idk	2/27/2020 10:24 PM
259	Unknown	2/27/2020 9:56 PM
260	That it's a nature park, and not a playground me recreation area.	2/27/2020 8:46 PM
261	Hiking	2/27/2020 8:37 PM
262	Quiet	2/27/2020 8:37 PM
263	Not there yet	2/27/2020 8:32 PM
264	Location	2/27/2020 8:25 PM
265	Na	2/27/2020 8:21 PM
266	Nature, quiet, welcoming	2/27/2020 11:09 AM
267	The quiet natural setting.	2/25/2020 3:31 PM
268	Peace and quiet!!!!	2/24/2020 11:43 AM
269	Potential	2/23/2020 10:41 AM
270	Must be careful with this not to attract too many and the wrong type of people.	2/21/2020 2:24 PM
271	It's close not crowded and quiet!	2/20/2020 6:06 PM
272	Location	2/18/2020 6:20 PM
273	The diversity and serenity	2/18/2020 10:15 AM
274	Nice, peaceful trails, that allow for tranquil hikes and dog walking opportunity.	2/18/2020 8:36 AM
275	Peaceful, serene setting. Not overdeveloped.	2/17/2020 1:02 PM
276	The wide trails, if we ever got snow would love Xcountry skiing there	2/14/2020 5:39 PM
277	location	2/14/2020 4:15 PM
278	The location is close enough for easy access, yet remote enough to "Get you out of town and away from it all". The large size I think allows for the potential to offer both active areas as well as separate tranquil areas. Although separate parking areas may help facilitate this if possible. It's about offering easy access to the desired active or passive options.	2/14/2020 3:11 PM
279	Quite space	2/14/2020 2:46 PM
280	location	2/14/2020 12:09 AM
281	close to city	2/13/2020 1:37 AM
282	The location is great.	2/12/2020 4:50 PM
283	Views and varied terrain	2/12/2020 4:25 PM
284	Trees and trails	2/12/2020 2:12 PM
285	Natural hiking trails	2/12/2020 12:17 PM
286	Open space, variety of habitats and opportunity to study natural history and practice photography.	2/12/2020 11:53 AM
287	Pine grove areas	2/12/2020 11:38 AM
288	The tranquility and easy of getting to its location.	2/12/2020 7:10 AM
289	close to city of Harrisburg	2/12/2020 5:56 AM
290	Never been there	2/11/2020 11:51 PM
291	It's size and tree groves	2/11/2020 10:29 PM

## Detweiler Park Public Opinion Survey

292	Never been there. But if you put in mountain biking trails, you'll see me there regularly!	2/11/2020 8:27 PM
293	Nature	2/11/2020 8:21 PM
294	X	2/11/2020 8:19 PM
295	The landscape	2/11/2020 8:04 PM
296	ability to enjoy nature in a safe environment. No danger of getting shot by a hunter in or out of the hunting season	2/10/2020 2:05 PM
297	A lot of potential, but it needs a lot of cleanup, trash wood chipped, trails marked, and the effort to create a master plan.	2/9/2020 6:55 PM
298	The clean, well maintained trails.	2/9/2020 5:58 PM
299	Very good for walking and hiking at my fitness level. It's very peaceful and the chairs are nice. It's beautiful amongst the trees.	2/9/2020 5:05 PM
300	That is in its most natural state.	2/7/2020 12:50 PM
301	Trails in woods	2/7/2020 12:46 PM
302	It's quiet	2/7/2020 12:29 PM
303	Quiet and peaceful, beautiful views	2/7/2020 10:36 AM
304	Lots of hiking areas which are easily navigated by any age group	2/7/2020 10:03 AM
305	Size, proximity to home, wildlife	2/6/2020 9:22 PM
306	I enjoy how quiet it is and that I can enjoy the natural surroundings.	2/6/2020 8:19 PM
307	The peace and quiet of the forest.	2/6/2020 7:32 PM
308	Quiet, nice trails	2/6/2020 6:17 PM
309	The quiet, open vistas from and across the meadows.	2/6/2020 5:39 PM
310	It's natural, wooded setting. It's a peaceful place and should stay that way.	2/6/2020 12:05 PM
311	I like park as it exists.	2/6/2020 11:35 AM
312	Quiet. Seeing deer and wildlife.	2/6/2020 11:31 AM
313	The variety of wild features - meadows, trees, streams	2/6/2020 6:39 AM
314	No buildings! Natural! Primitive and the ugly word---undeveloped!	2/6/2020 12:22 AM
315	Has both open and wooded areas	2/5/2020 11:06 PM
316	Natural setting; when you go you're surrounded by folks who also want to be out in quiet natural areas. I also love the variety of the trails--woods, meadow, pine forest, etc.	2/5/2020 6:34 PM
317	Diverse terrain and landscape. Close to downtown	2/5/2020 3:50 PM
318	Variety of habitat. Much quieter than Wildwood Park which suffers from traffic noise, bicycling, and jogging/trail running. Let's try to preserve the quiet.	2/5/2020 3:10 PM
319	The natural beauty and unique attributes.	2/5/2020 2:17 PM
320	It's natural and wild.	2/4/2020 10:34 PM
321	Location	2/4/2020 9:54 PM
322	total relaxation always,the peaceful sounds of nature, the diversity of wildlife,the quality people we meet hiking the trails	2/4/2020 9:41 PM
323	Nice flat trails through woods. Quiet. Even though a number of people are there, you don't see many.	2/4/2020 8:48 PM
324	Great natural area to take the dogs to hike and for the humans to get a good cardio workout in.	2/4/2020 8:07 PM
325	A place to get away from the city, and the noise	2/4/2020 7:37 PM
326	Meadow and openness	2/4/2020 7:31 PM
327	The easy trails that are suitable for my young children, and the stream that they can splash in after a long walk. Also the fact that I can take my dog.	2/4/2020 6:55 PM
328	It's quiet and the open meadows are beautiful. Please don't expand upon the park. Keep it as it was meant to be.	2/4/2020 6:53 PM
329	Undeveloped and peaceful setting	2/4/2020 5:50 PM

## Detweiler Park Public Opinion Survey

330	No highway noise. Combination of habitats. (Wide open spaces and woods) Dark skies.	2/4/2020 5:39 PM
331	The best part of this park is the natural setting. It's quiet and peaceful.	2/4/2020 4:26 PM
332	Mature trees and nature as god intended	2/4/2020 4:19 PM
333	I haven't been there. But now that I know about it, I'll be visiting often.	2/4/2020 2:49 PM
334	Being natural and quiet	2/4/2020 2:23 PM
335	The long beautiful walk under the hemlocks! The chairs under the trees to sit.	2/4/2020 1:50 PM
336	Wide hiking trails, beautiful landn	2/4/2020 12:44 PM
337	The numerous trails for me to walk my dogs	2/4/2020 12:23 PM
338	Location-quiet but convenient, large wooded area.	2/4/2020 12:02 PM
339	The pristine country setting. Have lived and been in areas of the Detweiler Park over the past 60+ years and it remains a beautiful asset with outstanding potentials.	2/4/2020 8:55 AM
340	The quiet peaceful setting,	2/4/2020 8:38 AM
341	wildlife,deer herds,saw 4 bears a year ago. Quiet hiking with few people.	2/4/2020 5:26 AM
342	Great trails for walking my dog without having to worry about hunters	2/3/2020 9:32 PM
343	Distance from the city	2/3/2020 8:53 PM
344	Wild state	2/3/2020 7:08 PM
345	It's beauty.	2/3/2020 6:59 PM
346	woodland hiking. quiet spaces. not developed!	2/3/2020 2:44 PM
347	I love that is close to my house and has gorgeous view in which to hike and walk my dog.	2/3/2020 12:30 PM



## Q22 What do you like least about Detweiler Park?

Answered: 293 Skipped: 310

## Detweiler Park Public Opinion Survey

#	RESPONSES	DATE
1	Trails need tanbark	9/22/2020 12:28 PM
2	Nothing at all!	9/21/2020 7:33 PM
3	I love the park. It is one of the best parts of living in Dauphin County. Maybe more recycling and better trash disposal, so people do not leave their trash.	9/21/2020 6:43 PM
4	There could be more trash cans.	9/21/2020 6:31 PM
5	Not many challenging walks	9/21/2020 6:15 PM
6	The idea that a bunch of knuckleheads are going to destroy the largest County "nature" Park in Dauphin County! The nature will leave and be replaced by "individuals" that will use drugs, drink alcohol, vandalize, destroy off trail areas by foot and bike, litter, not clean up after their pets, etc. I could go on and on. Please don't develop Detweiler Park. Its perfect.	9/21/2020 2:38 PM
7	Love it as it is.	9/21/2020 1:38 PM
8	The fact that the 411 acres may fall victim to modernization with the related woes that accompany changing nature to suit people and politics.	9/21/2020 1:18 PM
9	Invasive plants and shrubs are everywhere No bathroom Dog feces all over the place	9/20/2020 10:53 AM
10	could use a 2nd port-o-potty at other side of park.	9/18/2020 8:22 PM
11	Lack of restrooms, especially in the interior of the park. Many invasive plant species	9/16/2020 8:05 PM
12	Limited number of trails	9/14/2020 1:31 PM
13	No bathroom facility. Not enough trash cans. People not picking up after their dogs — Leaving bags of poop within eye-shot of the trash can at the entrance. Trash in various parts of the park that don't get picked up.	9/11/2020 11:35 AM
14	Can't say again, as I have never been in the park.	9/1/2020 9:58 AM
15	no restrooms	8/21/2020 4:23 PM
16	The lack of bathroom facilities.	8/13/2020 1:58 PM
17	No bathroom. Sometimes muddy.	7/27/2020 11:13 AM
18	People wanting to change it from its current condition	7/14/2020 4:44 PM
19	Trails around giant fields. Nice to have extra trails but the space could be utilized for something else. Should keep one field trail for something different though.	7/14/2020 4:41 AM
20	It needs some TLC as far as cleanup, adding natives, etc.	7/11/2020 1:23 PM
21	The Hill	7/10/2020 10:35 AM
22	Water drainage on some paths.	7/9/2020 6:55 AM
23	Would like the meadows to be more natural with native wildflowers.	7/8/2020 7:05 PM
24	The prohibition of archery hunting. This is a safe activity.	7/8/2020 9:03 AM
25	It is only foot traffic on trails so no bikes right now.	7/6/2020 2:29 PM
26	trails need better maintenance in places	7/6/2020 11:26 AM
27	Parking	7/5/2020 5:22 PM
28	Don't know if hunting or any sport that kills animal is done there but that would be such a turn off.	7/5/2020 11:32 AM
29	Lack of bathrooms	7/5/2020 11:18 AM
30	Actually the trails could be marked better. For example, the main orange trail has lots of smaller trails that cut across the middle and are also marked orange, making it hard to know where the main trail goes without using the map.	7/5/2020 9:26 AM
31	No rest room facilities.	7/5/2020 8:27 AM
32	No restrooms.	7/5/2020 1:02 AM
33	No bathroom.	7/4/2020 11:47 PM
34	Concerned about safety during small game season	7/4/2020 11:38 PM
35	poorly marked trails	7/4/2020 3:12 PM

## Detweiler Park Public Opinion Survey

36	That there is not a trail to the top of the mountain, but I understand that 225 would intersect it.	7/4/2020 11:50 AM
37	Not enough trails. Signage of private property is confusing.	7/4/2020 7:25 AM
38	Can't think of anything.	7/4/2020 1:59 AM
39	Lack of trail markers.	7/3/2020 8:17 PM
40	The trail with the red markings is awful to hike, not because of the terrain, but because it is so muddy and that it basically turns into a stream bed.	7/3/2020 8:50 AM
41	Hiking trails	7/2/2020 10:20 PM
42	A few small benches along the trails, between the Adirondack chair locations, would be helpful.	7/2/2020 9:56 PM
43	Na	7/2/2020 6:07 PM
44	No real restrooms	7/1/2020 6:13 PM
45	The trash being left on the ground.	7/1/2020 5:54 PM
46	There is nothing to not like!	6/30/2020 4:04 PM
47	limited ecological/environmental education	6/30/2020 1:45 PM
48	I wish there was an accessible bathroom facility and a trash can near the parking lot. Doesn't need to be throughout the park. Just easy to access and near the parking area.	6/29/2020 1:12 PM
49	The trails weren't well marked, and signage would greatly help with this. However, I really like the park and wish it weren't the most distant park to where we live.	6/29/2020 9:39 AM
50	Restricting trail to foot traffic only	6/28/2020 8:24 PM
51	need rest rooms or more portapotties	6/28/2020 6:33 PM
52	Nothing yet	6/28/2020 2:36 PM
53	Inaccurate path maps.	6/28/2020 2:04 PM
54	The muddy areas. When people don't clean up after their dogs.	6/28/2020 11:29 AM
55	No rest room	6/28/2020 9:52 AM
56	The lack of bathrooms.	6/27/2020 11:20 PM
57	No restrooms and minimal parking	6/27/2020 5:20 PM
58	Lack of restrooms.	6/27/2020 4:42 PM
59	Limited trails and options for activities.	6/27/2020 11:39 AM
60	The declining evergreen plantation.	6/26/2020 9:49 PM
61	Not sure about deer tick areas. Or wild animals when alone, or safety as a female.	6/26/2020 8:28 PM
62	The development potential turning it into something different than what it is now.	6/26/2020 8:19 PM
63	Locaton	6/26/2020 3:32 PM
64	No bathrooms, trash cans.	6/26/2020 2:38 PM
65	Would like to see more hiking trails	6/26/2020 1:48 PM
66	Trail marking and maps could be improved.	6/26/2020 10:41 AM
67	Comfort stations - restrooms, periodic rest or sitting benches, tables.	6/26/2020 10:01 AM
68	Limited bathroom facilities	6/26/2020 9:03 AM
69	Some trails are a bit washed out/rocky	6/26/2020 5:57 AM
70	Signage needs to be improved.	6/26/2020 12:27 AM
71	More parking and restrooms	6/25/2020 11:34 PM
72	I had to use a parta john	6/25/2020 10:56 PM
73	no restrooms	6/25/2020 9:30 PM
74	The lack of well designed trails	6/25/2020 9:24 PM
75	Not a lot of parking and would like bike trails.	6/25/2020 9:00 PM
76	Lack of restrooms	6/25/2020 8:42 PM

## Detweiler Park Public Opinion Survey

77	That it borders or encompasses private residences.	6/25/2020 7:33 PM
78	Trail design is currently poor and maintenance is also poor (hiking, biking and cross country skiing)	6/25/2020 7:16 PM
79	No rest room or trash cans.	6/25/2020 7:13 PM
80	There are no facilities for biking and horseback riding.	6/25/2020 6:14 PM
81	Muddy in some areas after heavy rain.	6/25/2020 5:08 PM
82	Parking	6/25/2020 5:00 PM
83	lack of restrooms and parking	6/25/2020 4:34 PM
84	Uncertain	6/25/2020 4:00 PM
85	Invasive plants.	6/25/2020 3:56 PM
86	None	6/25/2020 3:54 PM
87	No bathrooms	6/25/2020 3:51 PM
88	Need for more restrooms and a place to put garbage and dog poop.	6/25/2020 3:46 PM
89	People not removing trash and other items when leaving the park.	6/25/2020 3:41 PM
90	Plans to turn it into just another athletic foeld.	6/25/2020 3:30 PM
91	few restrooms/seating areas throughout the park	6/25/2020 3:24 PM
92	No restrooms or DonJons	6/25/2020 3:20 PM
93	Closeness to roadway noise	6/25/2020 3:11 PM
94	n/a	6/25/2020 2:58 PM
95	Not closer to me!	6/25/2020 2:57 PM
96	That you are trying to change it.	6/25/2020 2:48 PM
97	Lack of restrooms.	6/25/2020 2:47 PM
98	No bathrooms, and can become crowded (at least since COVID)	6/25/2020 2:26 PM
99	no restrooms, water	6/25/2020 2:12 PM
100	Please revert it back to its original agricultural use and STOP using taxpayer funds!	6/25/2020 1:49 PM
101	Your plans to "develop" it.	6/25/2020 1:17 PM
102	no hunting	6/25/2020 1:16 PM
103	Needs help restoring health of the forest and other areas, e.g. controlling invasives, encouraging regeneration/native understory, etc.	6/25/2020 1:16 PM
104	I like everything about it.	6/25/2020 1:11 PM
105	Size; in future I hope it gets bigger.	6/25/2020 1:04 PM
106	Would hate to see it become an amusement park type setting.	6/25/2020 12:56 PM
107	When people leave trash behind, some washed out areas and muddy parts on trails	6/25/2020 12:54 PM
108	no short hiking trails. I have disabilities and cannot hike far. Basically I can make it from the parking lot to the first point where the trail divides and back again. So I'm walking on the same spot every time. It would be nice to have some variety somehow.	6/25/2020 12:53 PM
109	People do not keep their dogs on a leash.	6/25/2020 12:48 PM
110	net yet fully developed	6/25/2020 12:36 PM
111	Bathrooms	6/25/2020 12:31 PM
112	I love it all right now. But if you mess it up with playground equipment, soccer fields, activities that involve shooting, I doubt I'll continue to visit unless the area for those things are not associated with the actual walking area. Since there are over 400 acres. There should be enough space to accommodate everyone but don't scatter it all through the walking area. Keep the playground in a different area.	6/25/2020 12:31 PM
113	Development	6/25/2020 12:27 PM
114	N/a	6/25/2020 12:24 PM

## Detweiler Park Public Opinion Survey

115	small parking lot	6/25/2020 12:24 PM
116	No play area for kids especially handicapped kids	6/25/2020 12:20 PM
117	Some of the trails on the mountain could use better drainage	6/25/2020 12:19 PM
118	I have never visited the park.	6/25/2020 12:18 PM
119	Nothing there yet, really	6/25/2020 12:17 PM
120	No restroom	6/25/2020 12:16 PM
121	Mud, trees fallen across trails	6/25/2020 12:14 PM
122	Being next to the road	6/25/2020 12:12 PM
123	The apparent disregard of community input to limit development of "active-use" facilities. Despite earlier surveys and comments at the two prior meetings, the proposed plan continues to include such things as athletic fields and mountain biking trails that would disrupt the quiet enjoyment of the park. What has not been disclosed is the motivation for inclusion of these kinds of facilities. Is it due to board members or county visions for the park? Does the developer have a financial interest in development of these additional, but unwanted facilities? The social media campaign of the mountain biking club is noted. However, it seems contrary to the spirit of the bequest and wishes of the greater community.	6/25/2020 11:55 AM
124	Poor signage for park entrance	6/25/2020 11:43 AM
125	People throwing dog bags to the side	6/25/2020 11:43 AM
126	No restrooms	6/25/2020 11:34 AM
127	Portapotty- would prefer composting or flushing toilets.	6/25/2020 11:16 AM
128	Lack of restrooms.	6/25/2020 10:58 AM
129	The muddy and wet spots on the trail in the woods	6/25/2020 10:50 AM
130	N/a	6/25/2020 10:46 AM
131	Nothing for kids that we've noted to date	6/25/2020 10:43 AM
132	Trials through the park are poorly marked. Is not user friendly.	6/25/2020 10:42 AM
133	Need more parking	6/25/2020 10:38 AM
134	A restroom facility near the park entrance rather than a portable toilet would make the experience more pleasant.	6/25/2020 10:34 AM
135	not child friendly	6/25/2020 10:28 AM
136	Nothing	6/25/2020 10:24 AM
137	No picnic facilities or dog park or restrooms	6/25/2020 10:23 AM
138	No bathrooms	6/25/2020 10:14 AM
139	Don't know	6/25/2020 10:13 AM
140	What's not to like? I'm concerned that I will not see a willingness to think differently, think ahead, and to address these shortcomings and changes in outdoor recreation here in central PA.	6/16/2020 3:39 PM
141	Lack of signs on trails.	6/10/2020 1:36 PM
142	People that throw trash. About the park itself, maybe more strenuous trails, or just more trails in general might be nice.	6/6/2020 7:06 PM
143	only one port-a-potty (and its locked)	6/2/2020 4:07 PM
144	Lack of restrooms/trash cans. Very few seating areas (i.e. benches)	5/31/2020 7:16 PM
145	Sometimes there are no restrooms. Trails could be marked a little better, but that will come with time.	5/31/2020 6:54 PM
146	No signage. Today was my first visit and I encountered 4 other lost people. The little yellow lines on the map need to be as big as the other lines/loops. On the yellow trail there are mowed areas that lead to residents' houses that look like part of the trail. That trail, especially around the water, needs built up as it is just mud after rain. Maybe at least put planks down over the particularly bad areas? There is also a cut area that looks like part of the trail in the meadow - but it's the airstrip not shown on the map. It needs a sign.	5/30/2020 10:16 PM
147	Southern trail tends to be swamp.	5/27/2020 6:22 PM

## Detweiler Park Public Opinion Survey

148	Not enough trails for people to go on and parking	5/25/2020 11:19 AM
149	There isn't anything really different about it, adding something unique like mountain biking or an obstacle course would provide a different recreational opportunity for the community.	5/20/2020 11:33 AM
150	We've only been there once, so far, and were overall delighted. We did notice a number of invasive plants in some areas, which, if addressed, could increase local wildlife and pollinator support, as well as serving to educate the public about the value of such by increasing the species diversity available to watch and learn about.	5/18/2020 12:07 PM
151	The park is a "diamond in the rough" and needs to be enhanced by sensitive planning to bring out the land's beautiful features.	5/14/2020 4:04 PM
152	I'm OK with the way it is at the present time. OK with dogs on leash but concern that might have so many impacts wildlife observation (on a recent sunny day a majority of visitors had pet dogs with them, albeit leashed).	5/12/2020 3:50 PM
153	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
154	popularity	5/11/2020 10:42 PM
155	Crowds	5/11/2020 9:55 PM
156	Distance from I-81	5/11/2020 8:48 PM
157	I don't dislike anything because I don't know it well enough yet.	5/11/2020 8:32 PM
158	Crowds and large groups making noise, disturbing the peace and quiet, wildlife, etc.	5/11/2020 8:03 PM
159	Already probably more people than I prefer (especially during COVID-19).	5/11/2020 6:21 PM
160	No great bathrooms	5/11/2020 1:36 PM
161	mans interference	5/11/2020 12:47 PM
162	N/A	5/11/2020 10:39 AM
163	Right now, nothing.	5/11/2020 9:20 AM
164	N/A	5/11/2020 9:11 AM
165	Lack of restroom facilities	5/11/2020 9:00 AM
166	The development of wild areas.	5/11/2020 8:42 AM
167	Lack of trails in the woods and the one at the top of the mountain is not well kept (it's always wet). The trails around the field are nice as you can add more mileage when you are running but it's more fun to run in the woods. :)	5/10/2020 8:25 PM
168	Lack of additional hiking trails.	5/10/2020 7:52 PM
169	Lots of times I'll see bags of dog poop, and trash. More people will generate even more of a mess, which is unfortunate. People are also inconsiderate with dogs off lead.	5/10/2020 12:52 PM
170	Lack of restrooms	5/10/2020 10:23 AM
171	Parking can get crowded on busy days.	5/8/2020 11:26 AM
172	Hard to get into it. The Detweiler house has not been well served by being broken into rental properties, but I guess income is important.	5/6/2020 3:16 PM
173	The red trail (mountain trail? The steep one) gets very flooded, it's always wet and muddy and there is basically a small stream running through parts. It need to have some storm water management in place to divert water off the trail so it can be used safely.	5/6/2020 10:15 AM
174	It's too far away!	5/6/2020 8:59 AM
175	Nothing. I love it.	5/5/2020 10:17 AM
176	Anything motorized	5/4/2020 1:38 PM
177	Not enough parking	5/4/2020 3:58 AM

## Detweiler Park Public Opinion Survey

178	Nothing	5/2/2020 9:00 PM
179	No trash bins and that people leave there dog bags around the trail. They need to take that home with them however if there were trash bins maybe they wouldn't leave it behind.	4/30/2020 9:58 AM
180	People throwing their dog waste bags everywhere and letting their dogs run at large without thinking of those that do not appreciate or have a fear of dogs.	4/29/2020 11:25 AM
181	It currently offers the same things we already have - we are fortunate to live in a lovely area for outdoors	4/28/2020 3:11 PM
182	Portable toilets	4/28/2020 2:59 PM
183	No sitting areas along the trails.	4/27/2020 10:58 PM
184	No trash cans and people not picking up dog waste bags.	4/27/2020 10:34 PM
185	No bathrooms, no trail markings...get lost sometimes.	4/27/2020 10:07 PM
186	no trash	4/27/2020 9:54 PM
187	No bathrooms	4/27/2020 9:52 PM
188	Parking area where you enter	4/27/2020 9:34 PM
189	The trails could be marked better than what they are.	4/27/2020 9:29 PM
190	No restrooms	4/27/2020 9:24 PM
191	no bathrooms	4/22/2020 7:09 PM
192	Honesty, nothing. I love it there and really hope that you all make the right decisions moving forward.	4/21/2020 8:08 PM
193	Lack of trash cans and bathrooms. I don't see a lot of littered trash, but always see bags of dog poop.	4/14/2020 4:16 PM
194	lack of bathrooms	4/12/2020 10:00 PM
195	The map is hard to interpret.	4/12/2020 7:49 PM
196	Trails can be a little confusing if you are new to the park, could use better markings. Also more paved parking.	4/11/2020 10:56 AM
197	Nothing	4/2/2020 4:02 PM
198	Nothing, I love it	3/20/2020 3:49 PM
199	People leaving dog poop, some dogs off leash	3/14/2020 1:39 AM
200	N/A	3/12/2020 1:48 PM
201	That the fields were mowed much too early this fall, before monarchs were through.	3/6/2020 5:45 PM
202	Nothing. It's beautiful!	3/5/2020 12:04 PM
203	can be muddy when rains but not a reason not to visit	3/4/2020 7:02 PM
204	There are parts of the trail that are extremely muddy.	3/4/2020 2:54 PM
205	Needs more hunting access	3/1/2020 11:34 PM
206	LACK OF BENCHES ,BATHROOMS, FRESH DRINKABLE WATER, UNMARKED TRAILS	3/1/2020 10:48 AM
207	Lack of multi use trails	2/28/2020 4:30 PM
208	n/a	2/28/2020 10:55 AM
209	No trash cans.	2/28/2020 10:22 AM
210	The idea of ball fields, etc. - do not develop to this extent	2/28/2020 8:03 AM
211	There isn't anything to dislike.	2/28/2020 7:15 AM
212	Idk	2/27/2020 10:24 PM
213	Unknown	2/27/2020 9:56 PM
214	N/A	2/27/2020 8:46 PM
215	Not yet developed	2/27/2020 8:37 PM
216	No biking trails	2/27/2020 8:37 PM
217	NA	2/27/2020 8:32 PM

## Detweiler Park Public Opinion Survey

218	Na	2/27/2020 8:21 PM
219	No hunting.	2/27/2020 8:12 PM
220	Lack of trail marking,	2/27/2020 11:09 AM
221	limited parking	2/25/2020 3:31 PM
222	Dogs. People do not keep their dogs on a leash!!! I hike at least once or twice a week and probably half of the dogs are NOT on a leash. I also see people riding trail bikes.	2/24/2020 11:43 AM
223	N/A	2/23/2020 10:41 AM
224	There could be more benches. Also, would like to see it more "senior and handicapped" friendly.	2/21/2020 2:24 PM
225	all the above ideas	2/20/2020 6:06 PM
226	No mountain bike trails	2/18/2020 6:20 PM
227	The thought of making it more than it already is.	2/18/2020 10:15 AM
228	Seems to suit my needs/wants as it is.	2/18/2020 8:36 AM
229	no bathroom facility, drinking water, signage could be better	2/14/2020 5:39 PM
230	varied land scape	2/14/2020 4:15 PM
231	Currently it is underdeveloped, and does not offer enough basic infrastructure, such as parking, rest rooms, pavilions and activity facilities to attract more users.	2/14/2020 3:11 PM
232	Not a lot to do	2/14/2020 2:46 PM
233	amenities	2/14/2020 12:09 AM
234	I haven't been fit a while bit lady time I was there, I thought the trails could be blazed better.	2/13/2020 6:16 PM
235	close to city	2/13/2020 1:37 AM
236	I wish there were biking or multi use trails.	2/12/2020 4:50 PM
237	not enough trails	2/12/2020 4:49 PM
238	undeveloped	2/12/2020 4:25 PM
239	dog poop	2/12/2020 2:12 PM
240	People failing to keep dogs on leashes and not cleaning up dog waste.	2/12/2020 11:53 AM
241	Needs to be used by more people	2/12/2020 5:56 AM
242	Never been there	2/11/2020 11:51 PM
243	No bike trails	2/11/2020 10:29 PM
244	NEEDS MTB TRAILS !!!	2/11/2020 9:07 PM
245	It doesn't have mountain bike trails yet. 😊	2/11/2020 8:27 PM
246	X	2/11/2020 8:19 PM
247	Nothing	2/11/2020 8:04 PM
248	---Some existing spots are soggy. Chipping up the trash wood and bringing the chips to those areas be helpful for the beginning years of the park. ---The lack of trail signs was distressing, but plenty of signs for private property and naming objects around the buildings near the parking lot.	2/9/2020 6:55 PM
249	Lack of bathrooms	2/9/2020 5:58 PM
250	The port o potty.	2/9/2020 5:05 PM
251	Needs much better management for natural values	2/7/2020 12:55 PM
252	I have no complaints.	2/7/2020 12:50 PM
253	Lack of restrooms	2/7/2020 12:46 PM
254	Doesn't have enough portable toilets available	2/7/2020 10:03 AM
255	Lack of restrooms	2/6/2020 9:22 PM
256	Some of the trails could be marked better. The one part of the trail that goes past a small pond with a no ice skating sign and around a home/building and driveway is kind of confusing. I was	2/6/2020 8:19 PM



## Detweiler Park Public Opinion Survey

	unsure where the trail went because the property was right in the middle of it.	
257	No restrooms	2/6/2020 7:32 PM
258	Parts can get muddy	2/6/2020 6:17 PM
259	The existing trails are rough and have standing water and drainage problems. A more gradually graded trail to get out to the fields would be appreciated.	2/6/2020 5:39 PM
260	Some "trails" were washed out, muddy, etc.	2/6/2020 12:05 PM
261	Don't overdevelop. Don't need too many signs. Keep passive activity areas unobtrusive, open for all to enjoy when organized programs aren't on.	2/6/2020 11:35 AM
262	Not one thing is wrong there. Perfect just the way it is.	2/6/2020 11:31 AM
263	Unmarked trails - blazes would make it better	2/6/2020 6:39 AM
264	The thought of lots of forthcoming man-made junk to be added. Don't need any obtrusive structures like statues of cows or other so called art forms to spoil nature's own beauty as has been done along the river front drive through Harrisburg! Artists should keep their stuff in their own back yard--I do!	2/6/2020 12:22 AM
265	The amount of unused open meadow space	2/5/2020 3:50 PM
266	The trails could be better marked for visitors who are less familiar with the park. Some trails could be moderately improved or relocated to avoid excessively wet areas.	2/5/2020 3:10 PM
267	THE ORANGE CHAIRS!	2/5/2020 2:17 PM
268	The chairs and dogs off leash.	2/4/2020 10:34 PM
269	No restrooms	2/4/2020 9:54 PM
270	the fact that people who do not use the park want to change it!	2/4/2020 9:41 PM
271	Hunting, trees fallen across the trails, mud and erosion of trails from poor drainage, no trash containers for dog poop bags,	2/4/2020 8:48 PM
272	I've never visited because of the lack of restrooms. I would very much like to visit someday but won't until restrooms are provided. I'll stick to Wildwood Park and Nature Center.	2/4/2020 8:36 PM
273	No trash receptacles.	2/4/2020 8:07 PM
274	Not enough Mountain trails	2/4/2020 7:37 PM
275	No restroom	2/4/2020 7:31 PM
276	I dislike that there are no trash cans and only one portable toilet. I've also seen too many people let their dogs walk off leash and fail to clean up after their dog.	2/4/2020 6:55 PM
277	The one house near the trail has two aggressive dogs which are not confined to a fenced in area. It's very scary walking on that one part of the trail.	2/4/2020 6:53 PM
278	Far away from urban and suburban population in that you have to drive a car to get there. Trails aren't yet sufficiently marked with color-coding.	2/4/2020 5:39 PM
279	People trying to change this natural setting into just another playground for kids. There are plenty of other parks in the area that have picnic grounds, playgrounds and athletic fields. Please don't ruin this park. Keep it as it is!!!!	2/4/2020 4:26 PM
280	The thought of to much development	2/4/2020 4:19 PM
281	N/A	2/4/2020 2:49 PM
282	Erosion occurring	2/4/2020 2:23 PM
283	No bathrooms	2/4/2020 1:50 PM
284	Unknown	2/4/2020 12:44 PM
285	The lack of restrooms	2/4/2020 12:23 PM
286	It's only a concern and that is the access off of Rt. 225 and Clarks Valley Road due to traffic.	2/4/2020 8:55 AM
287	Lack of restrooms	2/4/2020 8:38 AM
288	The barking dogs on the eastern border of park.	2/4/2020 5:26 AM
289	Parking and restroom facilities	2/3/2020 9:32 PM
290	Not being able to hunt, leash rules.	2/3/2020 8:53 PM

## Detweiler Park Public Opinion Survey

291	Access (distance from core county population center)	2/3/2020 7:08 PM
292	None	2/3/2020 6:59 PM
293	too far away for me to get to (no car).	2/3/2020 2:44 PM

**Q23 Please share any additional thoughts, comments, or ideas you would like to share about Detweiler Park.**

Answered: 187 Skipped: 416

## Detweiler Park Public Opinion Survey

#	RESPONSES	DATE
1	I	9/21/2020 7:33 PM
2	Please don't add all the activities you're thinking about, it would ruin the park and I'd have to start going elsewhere.	9/21/2020 6:31 PM
3	It's beautiful just the way it is presently, please don't change it	9/21/2020 6:11 PM
4	The park should be made to be a model for nature conservancy that rivals similar parks throughout the US!!	9/21/2020 2:38 PM
5	I see a lot of people out there, no fangles, no dangles. They all say Hi, and they love this place as it is.	9/21/2020 1:38 PM
6	Thank you for allowing me to share my experiences and thoughts.	9/21/2020 1:18 PM
7	Consider consultation and partnering with the Ned Smith Center. Duplication of available activities could greatly impact the viability and survival of the NSC.	9/20/2020 10:53 AM
8	I'm very sad that Detweiler is going to be changed!!! It doesn't need any so-called "improvements", and will only be ruined by them. It is perfect just the way it is! People love Detweiler bc it is not modernized like other parks. It is just you and woods...feels like far away from civilization. even adding or re-arranging trails will destroy how beautiful they are now, (and deer will lose their space, may go farther away from park). I think many other visitors dont know about this survey and will be sad too!	9/18/2020 8:22 PM
9	Nothing at this time.	9/1/2020 9:58 AM
10	nature center would be wonderful; along with more benches/adirondack chairs (maybe not orange, but a more blended color to the scenery)	8/21/2020 4:23 PM
11	We come to Detweiler because it is quiet, safe, and well tended. We bring our preschooler there to get outside and to learn about nature. I can appreciate efforts to turn the park into a revenue-generating location, but we currently love the quiet family space we enjoy while we visit.	8/13/2020 1:58 PM
12	Since the park is adjacent to my property, I would prefer passive nature activities only. I would not like to see sports fields or hunting.	7/27/2020 6:29 PM
13	Leave it alone. If only the Detweilers were wiser - you would not have secured this land.	7/14/2020 4:44 PM
14	Playground for kids is debatable. There are others in the area to go to so maybe we should keep Detweiler more nature related activities like wildwood.	7/14/2020 4:41 AM
15	Great outdoor atmosphere with little intrusion by man.	7/9/2020 6:55 AM
16	Please consider allowing archery hunting opportunities. It doesn't have to be every day of the week if user conflicts are what worries people.	7/8/2020 9:03 AM
17	We love it for hiking. I wouldn't feel as safe if I knew it was going to be used commonly for hunting.	7/5/2020 9:26 AM
18	We would hate to see it overdeveloped. Efforts to increase native plants and eliminate invasive species should continue and increase.	7/5/2020 8:27 AM
19	better marked trails; ban hunting; message boards about hazards, i.e. snake sightings	7/4/2020 11:38 PM
20	I really like this park, much more than Boyd Big Tree, which I also frequent with my dog. I really hope nature is kept as a focus of this park. So many community parks in my municipality already have athletic amenities, pavilions, etc. I really hope that this also doesn't become a place to hunt or trap or I will not visit anymore. There's enough of that in and surrounding Dauphin County already. I don't feel safe hiking and walking my dog in places that have traps. It also becomes a safety issues for families and children which frequent the park and explore the creeks and forests.	7/3/2020 8:50 AM
21	Great effort	7/2/2020 10:20 PM
22	I would not like to see it become crowded and cluttered with structures. Gardens would be nice, but the more natural the better.	7/2/2020 9:56 PM
23	There are a lot of invasive species and vines threatening the plantation trees closest to the admin building. I'd like to know that the forest will be professionally managed.	7/1/2020 6:13 PM
24	While walking, two of my friends and their two dogs were attacked by a dog that got loose. Injuries were sustained that required medical attention. How can this be prevented? It is scary.	7/1/2020 4:31 PM
25	I worry the addition of activities such as ball fields, playgrounds, exercise areas, and other active activities would take away from the parks preserved natural areas. Not many parks	6/30/2020 1:45 PM

## Detweiler Park Public Opinion Survey

have such a large natural areas for hiking and that makes Detweiler very unique. The large meadows and wooded areas make Detweiler the beautiful park that it is.

26	I love Detweiler the way it is now. I think adding ecological activities and trails will preserve its beloved atmosphere, but I don't think that it would be as quiet and enjoyable for us personally if it had sports fields, splash pads, playgrounds, dog parks, etc. And, I like being able to hike all year round without wearing orange vests and feel safe walking my dog because there is no hunting allowed in the park. I would rather not change that aspect, either.	6/29/2020 1:12 PM
27	I felt very blessed to have a walk with a friend on the trails in Detweiler Park. I want to return soon with my husband and show him why i was so impressed. It's very peaceful and pretty, and we saw wildlife and more butterflies than we could count. Thanks for taking this survey. It shows how much you are considering the community's needs and desires for using this park!	6/29/2020 9:39 AM
28	Please keep it as natural and serene as possible. Thank you!	6/28/2020 2:36 PM
29	There are plenty of developed parks. Keep this one natural and reduce maintenance costs, and provide all of the residents of Dauphin a beautiful nature experience.	6/28/2020 12:05 PM
30	I am so grateful for such a beautiful park so close to home.	6/28/2020 11:29 AM
31	Keep it simple.	6/28/2020 9:52 AM
32	Don't overdevelop this place. You can't undo it once it's been built up.	6/27/2020 11:20 PM
33	I hope that the improvements will still preserve this priceless natural setting.	6/27/2020 5:20 PM
34	As I am somewhat new to the area, I did not know that Detweiler Park existed. Thanks to this email, I now do and will make the effort to visit!	6/27/2020 8:23 AM
35	It should be a nature park with enhanced diversity of native plants and wildlife habitats, to be enjoyed by all of Dauphin County and visitors.	6/26/2020 9:49 PM
36	Good survey to get an idea of the wants. Seems like the survey will help you get ideas primarily from an active vs passive use and development.	6/26/2020 10:01 AM
37	Would like to see more improvement	6/26/2020 7:17 AM
38	You already have a lot of activities & programs at Fort Hunter and Wildwood, I don't think you need another place for all that.	6/25/2020 10:56 PM
39	It needs to be a park for people to be able to use safely during the year. Having shotgun facilities would undermine the peaceful setting. I live near and use hunting clubs which have built in the necessary room for safe shooting, but which I can still hear over 4 miles away.	6/25/2020 9:24 PM
40	I really think that adding too many facilities such as ball parks, soccer fields etc will diminish the natural experience of the park.	6/25/2020 9:09 PM
41	Don't make the Park have everything, us the money wisely for 80% of the population. Also do not create multi-use trails (you cannot easily combine hiking and biking trails, they do not mix well)	6/25/2020 7:16 PM
42	Do not develop it too much. Keep the naturalness and quietness. Bike trails cause erosion. I heard there are currently bikers there and shouldn't be. Do not put bike pump area. I think that is what they are called. No sports fields! Have various natural areas to attract pollinators and birds, and educate people w/ signage and guided tours. Limit new blacktop areas.	6/25/2020 6:18 PM
43	The meadow wildflower planting and invasive species removal would be great volunteer service projects. No need to pay anyone to do it. Get the community involved, especially those who use the park. This gives them an opportunity to give back.	6/25/2020 5:08 PM
44	The county is legally bound to its role as a trustee of the environment under Article 1 Section 27 of the PA Constitution. These sort of tyranny of the majority type surveys seem inappropriate unless you can conjure up future generations and ask their opinions. And, of course, leave the county open to future litigation on the matter. "Here is your country. Cherish these natural wonders, cherish the natural resources, cherish the history and romance as a sacred heritage, for your children and your children's children. Do not let selfish men or greedy interests skin your country of its beauty, its riches or its romance." Theodore Roosevelt	6/25/2020 3:56 PM
45	None	6/25/2020 3:54 PM
46	There are an adequate number of facilities for playgrounds, athletic field, and hunting. Please leave Detweiler Park as wild and unspoiled as possible.	6/25/2020 3:30 PM
47	Would like to see the park kept as natural as possible while still providing educational opportunities.	6/25/2020 3:24 PM
48	Direction Signage on the trails, benches on the trails, picnic area	6/25/2020 3:20 PM
49	Don't add too many organized activity areas. Keep it simple!	6/25/2020 2:57 PM

## Detweiler Park Public Opinion Survey

50	I think we have enough "community parks" in Dauphin County in that we don't need a place for ball games, music, etc. Keep it natural the way it was intended to be.	6/25/2020 2:48 PM
51	As a mom of two, I love having this park close by for kid friendly and dog friendly hikes. Please keep it for us nature lovers. If it is developed too much, we will lose that.	6/25/2020 2:38 PM
52	Please revert it back to its original agricultural use and STOP using taxpayer funds!	6/25/2020 1:49 PM
53	Quiet natural , family oriented , provide some sort of safety contact areas for people but not sure how, maybe call boxes.	6/25/2020 1:23 PM
54	No dogs at all.	6/25/2020 1:17 PM
55	By not allowing hunting, the park will be subjected to harsh overbrowsing by deer and its regeneration stunted, while also diminishing biodiversity of plants. You could easily have hunting in designated areas, and could limit it by bow only. Same for Wildwood Park, which is severely overbrowsed.	6/25/2020 1:16 PM
56	This is a very special gift to the county. Please consider doing a little development as possible. It should be left alone.	6/25/2020 12:56 PM
57	I think workout stations, outdoor exercise classes, and mountain biking trails would be nice! But I also like it just as it is now.	6/25/2020 12:54 PM
58	I moved into Dauphin from Juniata Co. We had Licking Creek where we walked our dogs. It was great! When I moved closer to Hbg, I was worried I wouldn't find anything like this in the area. I found Boyd Big Tree. But the bugs were too much! Too many ticks, too many gnats I could hardly walk there comfortably. Finding Detweiler was a BLESSING!! I love this park.	6/25/2020 12:31 PM
59	Please modify as little as possible.	6/25/2020 12:27 PM
60	Bike trails fine, pedestrian have right away at all times. Don't know if enough land for horse trails	6/25/2020 12:27 PM
61	nature & photography programs are very welcome	6/25/2020 12:24 PM
62	Need a place for handicapped kids like lower Paxton has!!!!	6/25/2020 12:20 PM
63	I have never visited the park. Most likely due to proximity.	6/25/2020 12:18 PM
64	disc golf course	6/25/2020 12:17 PM
65	I do not want it turned into a playground type facility. I love the natural environment!	6/25/2020 12:14 PM
66	The park has tremendous potential to provide a place for the community to reconnect with the outdoors and introduce members of the community with the benefits of such connection who may have concerns about hiking in more remote areas. Conservation and education opportunities can be exceptional in this park.	6/25/2020 11:55 AM
67	With all the game lands in the area I do not want to see hunting etc at Detweiler Park. The deer and other wildlife will find other areas to disperse. This land has been in existence with very little upkeep for decades so let it alone and add trails with restrooms and minimal uses. There is an airplane hangar and other accessory buildings including a dwelling that could be used as a multifunctional event buildings. Many possibilities without changing the character of this beautiful plot of land.	6/25/2020 11:43 AM
68	While it would be nice to have things like a playground or splash pad/ event stage and picnic areas it is nice to have an empty, peaceful uncrowded place to relax and be in nature.	6/25/2020 11:16 AM
69	Thanks for preserving this great natural space.	6/25/2020 10:58 AM
70	The trail in the woods could be improved with boardwalks or water bars, also add some trail signs	6/25/2020 10:50 AM
71	Detweiler Park is absolutely beautiful! Please try to keep its original forest, woods, and grounds in tact without taking away from the beautiful views.	6/25/2020 10:42 AM
72	From what I've heard of Detweiler Park it is a large, natural park in a rural/forested setting. I think it would be better to keep it as natural and quiet as possible and to stick to natural recreation opportunities (like hiking) rather than filling it up with playgrounds and picnic areas. The latter will lead to more people, more trash, more disturbance and less wildlife.	6/25/2020 10:40 AM
73	I like the idea of mostly leaving the park in its current state. There are other county parks with athletic facilities and playgrounds, but Detweiler is unique in the visitor's ability to connect with nature. It would be great if events could be held at the park so it could bring the community together without permanently altering the natural landscape.	6/25/2020 10:34 AM
74	Please don't do too much to it.	6/25/2020 10:14 AM
75	The recent surge in cycling and outdoor recreation due to the coronavirus is a clear indication	6/16/2020 3:39 PM

## Detweiler Park Public Opinion Survey

that people want to ride, want to ride more, and need places to go. Dauphin Co is poised to be able to deliver a park that could provide these people an amazing space to experience the outdoors and tying that into all that Detweiler can offer everyone. Here's to hoping that we'll see Dauphin Co. move in a direction that accomplishes all that the park can offer.

76	The park should NOT have active recreation. There is a lot of other opportunity for that in the region. This park should be left intact for passive recreation.	6/10/2020 1:36 PM
77	Orchard could supply resources for multiple wildlife species and humans	6/3/2020 7:48 PM
78	create a sound barrier btw road and park in the far section of park that is across the smaller grass field. You can hear all the cars going by the further you walk up mountain. Also, raspberry bushes along trail would be a sweet idea.	6/2/2020 4:07 PM
79	Mountain bike trails would be nice	6/2/2020 1:31 PM
80	A few trails need to be re-routed in order to prevent erosion/degradation. "sustainable trails" are the key.	5/31/2020 6:54 PM
81	Beautiful park! Please keep it natural. I don't want to have to watch out for bikes like at Wildwood. No noise from model airplanes that would scare birds away. No fishing lines left behind that might entangle wildlife like at Wildwood. Bathrooms (with hand sanitizer) would be nice so people do not go in the woods.	5/30/2020 10:16 PM
82	It is an amazing piece of property and I love how peaceful it is on almost any day of the week. My spouse and I just found out about it and have gone several days a week during the pandemic.	5/27/2020 6:22 PM
83	I do not want to see sports fields at the park. That would completely change the feel of the park, and there are plenty of sports fields elsewhere.	5/24/2020 8:33 PM
84	I hope Detweiler Park remains a natural area similar to our state parks with minimal human impact.	5/18/2020 9:42 PM
85	So much about it about it right now, is beautiful just as it is. Hopefully the meadows will be maintained with nesting grassland bird species in mind, so that any haying that is done is done in the fall, after these birds have had a chance to nest and fledge and raise their young -- the Pennsylvanian Breeding Bird Atlas could be consulted, if that hasn't been done already, to ascertain "safe dates" for likely or known species using the meadows for nesting. Thank you for this opportunity to provide comments!	5/18/2020 12:07 PM
86	Please continue to keep me updated.	5/14/2020 4:04 PM
87	See above--need to promote more active K-12 and higher ed. environmental education involving adjoining county staff soil and water conservation as well as cooperative extension where appropriate. Plenty of opportunity here, especially given the excellent storm water drainage display adjoining the parking lot that most visitors are not even aware of.	5/12/2020 3:50 PM
88	These three "boomer" commissioners are climate-change deniers and should be removed from all decision-making regarding this park. These commissioners like have no concept of best practices in park development. They destroyed many huge, old shade trees at Fort Hunter park to make more parking which is unused for most of the year. It used to be a nice cool place along the river. Not anymore...thanks to these three commissioners. The asphalt they put in place of the trees heats up the area so it is no longer a cool oasis in an urban heat island. They funded the destruction of acres of trees and wetlands at Swatara township's Schiavoni and McNaughton parks. This, too, was a cool area before these three commissioners fund this environmental destruction. Hey Commissioners! PARKS SHOULD NOT BE REPLICAS OF SUBURBIA'S BACKYARD! LEAVE THIS PARK ALONE.	5/12/2020 9:13 AM
89	There are so many other places for athletic fields including Wiconisco 16 miles away. It shouldn't even be a question for Detweiler.	5/11/2020 8:32 PM
90	Please keep the park for hiking only— please consider wildlife and natural trails, etc	5/11/2020 8:03 PM
91	I will be much less likely to use the park if hunting and related activities are permitted here. There are already too few places for hikers to go outside of Sundays, and as Sunday hunting goes into effect, there won't be a place for us to go then either.	5/11/2020 6:21 PM
92	You should put pollinating plants in the fields. Milk weed and stuff like that. To bring the bees and butterflies.	5/11/2020 2:42 PM
93	think you got the gist of where I am coming from .. who named this place .. ahh a white man ...	5/11/2020 12:47 PM
94	See note on # 15 regarding postings and use of scientific names of organisms on literature and identification posts. Also: Any listing of the address of the facility and published maps showing Route 325 ( Clark's Valley Road ),- and the waterway ( Clark's Creek) should reflect the time - honored historical possessive names, not the erred and changed proper place names where	5/11/2020 10:39 AM



## Detweiler Park Public Opinion Survey

the possessive aspect has been dropped. It is NOT "Clarks Creek" nor "Clark Creek" - it is Clark's Creek !

95	Please no hunting. There are hardly any natural places to safely access during hunting season and with Sunday hunting being implemented we will have even less opportunity to safe outdoor spaces during the very best months.	5/11/2020 9:20 AM
96	I hope it is left as is. A nature center, similar to Wildwood, is fine. But we need untouched spaces for nature to flourish.	5/11/2020 9:11 AM
97	Some areas of the park should be open to hunting. The areas can be marked and away from the parking areas, but to not allow use of that natural resource is improper.	5/11/2020 8:42 AM
98	My husband and I have been coming to this park since shortly after it opened. We were ECSTATIC to have found a new quiet park to explore that's only 15 min away. We had a photo shoot there two years ago with our dog and the photographer immediately recognized how special this place is. We were almost hesitant to share it with her because we didn't want the word to get out about the place (true story!). We actually saw a baby bear run across a trail during our photo shoot! We love the variety of scenery - the rows and rows and rows of pine trees are something you'd see in a movie! I think it's more important now than ever to cherish the natural resources we have and to raise our children to appreciate the wilderness as it is. There seems to be more and more playgrounds, recreational areas, bike trails, etc. in the area for families to use but it seems like safe access to Mother Nature at her finest are few and far between. On that note, I'm so thankful someone is making an effort to ask our opinion on the use of this beautiful land. Thank you for all of your efforts!	5/10/2020 8:25 PM
99	Add more hiking trails, possibly along the hill as well as through the pine tree area...that would be awesome!	5/10/2020 7:52 PM
100	One of the greatest features about Detweiler is that it's peaceful and not incredibly busy all the time. It would be most beneficial for the ecology of the park to keep additional facilities/development to a minimum that would encourage prolific visitation and use.	5/8/2020 11:26 AM
101	It's a valuable resource -- don't screw it up!	5/6/2020 3:16 PM
102	I urge you to ban mountain bikes and e-bikes from the grounds. I see the damage they cause and I deal with their disrespect on a regular basis.	5/6/2020 8:59 AM
103	Please consider allowing archery hunting in the park. Many local governments across the country offer some type of archery hunting opportunities in publicly owned parks. Often times it happens after deer populations become a problem for native tree/shrub regeneration and other natural resources. Deer hunting, even if controlled by the owner or land manager (i.e. specific days or via special permits), incorporated early into this plan and others is a necessary component for a complete and balanced approach to the management of the natural resources of the park.	5/5/2020 1:16 PM
104	Invasive plant control, where possible would make it much better for wildlife Potential for popular birding hotspot.	5/4/2020 1:38 PM
105	Please preserve this treasure with minimal impact. It lasted for decades without any human intrusion other than the family that created it, why ruin it and monopolize it.	4/29/2020 11:25 AM
106	The beauty of this park is the land and vegetation in its current form. We already have sports and athletic fields elsewhere and to be honest it's nice to get away from that mindset and escape to what Detweiler already offers. The more you add to it (develop it) the more that will be lost. As the saying goes...Less is more!	4/28/2020 2:59 PM
107	I would like to see a space dedicated for camping/tenting on a short term basis. No week-long camping trips.	4/27/2020 10:58 PM
108	No more sports fields. We have plenty in middle paxton that are under utilized. Don't waste this treasure on sports fields.	4/27/2020 10:34 PM
109	No drones, no guns, no soccer fields	4/25/2020 10:32 AM
110	I hope it can stay as natural as it is. I like the quiet atmosphere.	4/22/2020 7:09 PM
111	A couple more trails through the center would be nice. Dispersed (hike-in only) rustic camping spots would be cool. Just like two or three. Lower Allen Township does it.	4/21/2020 8:08 PM
112	I would like to see it stay close to how it is now. Some educational signs would be a nice touch.	4/21/2020 8:02 PM
113	This is such a happy peaceful park. As much as I love arts, entertainment and festivals, I think it would be a shame to do those events here, it would disturb the wildlife and cause a lot of damage to the plants.	4/14/2020 4:16 PM
114	Keep an over abundance of people away from here. No trash ,noise which comes with more people. The local residents ,which I am not, would not appreciate this. Neither would the herds	4/2/2020 4:02 PM



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of deer and other animals in this area. They were here first. Not humans.. I realize my voice is minimal in the age of Corporate totalitarianism.Eventually, god will deal with them. Thanks,from a true christian

115	A disk golf course would be great for the residents of Dauphin county and visitors to our county.	3/29/2020 7:02 PM
116	Would love to see mountain bike trails worked in without alienating hikers and those trails.	3/27/2020 11:13 PM
117	My family and I took a hike on March 22nd, and met a woman who is affiliated with Detweiler Park. She suggested that we fill out this survey. Upon further thinking, my 15-year old son and I had an idea. He is currently a Life Scout with Troop 10 in Linglestown, and he needs to create an Eagle Scout project. Is there anything, from your survey, that he may be able to help with? Let me know your thoughts. My email is mad_mardagan1@yahoo.com	3/24/2020 10:23 AM
118	One or two more port a potties	3/20/2020 3:49 PM
119	Shared use/mountain biking trails would be a great use of this property!	3/9/2020 4:09 PM
120	Mountain biking and model airplanes would ruin the peaceful feeling Detweiler currently has. I would like to see the fields managed for grassland birds and butterflies. I saw grasshopper sparrows there last summer and they are hard to find anymore due to farming practices. Monarch experts should be consulted regarding when to mow (and not mow) the fields. As discussed at the meeting, the northwest section of the red trail needs some 'professional' trail construction to alleviate erosion.	3/6/2020 5:45 PM
121	It would be nice to have nice hiking and biking trails for citizens in upper dauphin county.	3/5/2020 12:04 PM
122	I think a dog park would be extremely popular at Detweiler Park since the park is dog friendly and there aren't many dog parks close by.	3/4/2020 2:54 PM
123	We would love to see you work with SAMBA and any other mountain biking association to add places to ride bikes.	2/28/2020 4:30 PM
124	would love to see multi use trail system for all ability levels, kids/ handicapped area, beginner, intermediate and advanced trails. based on grade/and trail features	2/28/2020 10:55 AM
125	Detweiler Park is a beautiful place. I think adding courts and ball fields may take away a bit of the serenity of it all. If they are added, maybe build them in corner of the park to keep the noise to a minimum.	2/28/2020 10:22 AM
126	Have wheelchair accessible hiking, viewing areas like Sweet Arrow Lake in Schuylkill County. They have man made wooden hiking trails for wheelchairs.	2/27/2020 9:56 PM
127	Please keep the integrity of nature with this park and don't ruin the peaceful area with playgrounds, ball fields, and hunting. We have enough of those provided in the Community, we do not have enough natural getaways.	2/27/2020 8:46 PM
128	The park should considered limited hunters with access awarded through a random draw lottery system. A fee could be associated with the lottery chance to raise fu day for the park.	2/27/2020 8:43 PM
129	Na	2/27/2020 8:21 PM
130	Create app that shows where you are in the park, trails, etc. 400 acres is large, people can get lost, confused without well marked trails	2/27/2020 11:09 AM
131	food forest	2/25/2020 6:57 PM
132	Remove the invasive bamboo at the fish hatchery.	2/25/2020 3:31 PM
133	Post LARGE signs at the trail head indicating that all dogs must be on a leash and no trail bikes.	2/24/2020 11:43 AM
134	N/A	2/23/2020 10:41 AM
135	I think this park would be a great place to offer a "Kolor Run" as a fund raiser. They are fun and well attended and the color is cornstarch so it's echo-friendly. I would help organize if this is a possibility.	2/21/2020 2:24 PM
136	Please, do nothing more to this gem. Don't try to be everything to everybody. Dauphin/MDPXT already has picnic areas, soccer/baseball fields, a pool. Leave this for the quiet, meditative place it is. I quote an old friend, Sir Paul. I "whisper words of wisdom, Let it be". Thank you, from this comrade of Mother Nature's.	2/18/2020 10:15 AM
137	The park should be left pretty much like it is. Although, a few more seats to utilize while in need of a rest, would be beneficial, along with a few more portatoilets. Too, if some of the field area in the back were planted with wildflowers and sunflowers sometimes, that would be very nice. As far as athletic fields go, there are plenty of places around the county to play sports, so why ruin this park, and the currently tranquil nature of the park, with ball fields? Again, lots	2/18/2020 8:36 AM

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of ball fields around the county as well as basketball courts, so I would be against including those at Deweiler.

138	I think this would be an amazing site for a fabulous disc golf course with mix of wood and open holes plus the side of the mountain, could be a destination course for sure	2/14/2020 5:39 PM
139	The location is close to Game lands 211 40,000 acres, the Appalachian trail, Hawks Rock in Duncannon. Plenty of destination driving hikes, no mountain biking is available	2/14/2020 4:15 PM
140	The potential is of course HUGE! The possibilities for educational, active as well as passive options is there!	2/14/2020 3:11 PM
141	Biking trails	2/13/2020 9:30 AM
142	need more mnt bike trails	2/13/2020 1:37 AM
143	Detweiler Park's location provides a great area to have trails for bikers of all skill levels. We have a growing NICA (high school mountain biking) scene in this area and this would be a great place for kids to be able to practice with out having to travel to Lykens, Newville, or Swatara Creek State Park if they want trails different than the Parkway Trails.	2/12/2020 4:50 PM
144	It's reported that a 1993 letter found in Meade's files states simply his vision for the future of this land: "The property should be an area where habitats are preserved and managed in perpetuity for wildlife based on sound ecological principles that demonstrate a strong land ethic..." I would hope that the county, now that the property is part of the public trust, will continue to follow the vision laid out by Mr. Detweiler. Obviously a smart and well-read individual, he was, of course, referencing the land ethic as laid out by Aldo Leopold in his 1949 book entitled A Sand County Almanac and Sketches Here and There. In it, Leopold put forth the following guidance: "Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise. It of course goes without saying that economic feasibility limits the tether of what can or cannot be done for land. It always has and it always will." Thank you for the opportunity to comment.	2/12/2020 11:53 AM
145	I feel a bike trail system would bring a lot of happiness to the park and give it something special and unique to Detweiler Park to appreciate and utilize this park. The age for trail riding is 5 (sometimes less)-105, this is a broad range of ages which serves a larger, often overlooked, active population.	2/12/2020 7:10 AM
146	Just moved to Harrisburg 4 months ago and have not had an opportunity to visit Detweiler Park	2/11/2020 11:33 PM
147	Please consider sustainable pro designed out of the way multi use bike trails. With such a large park it would be a nice way to get around.	2/11/2020 10:29 PM
148	There are few areas of any in the Capital Region that could offer bike trails to the public like Detweiler Park. Samba has shown time again that it is more than equipped to handle trail creation and growth to bring biking to the community.	2/11/2020 9:56 PM
149	Would love more opportunities for off road bicycling	2/11/2020 9:38 PM
150	If there was mountain biking at this park, my family would visit often.	2/11/2020 8:50 PM
151	Mountain bike trails would be great	2/11/2020 8:33 PM
152	X	2/11/2020 8:19 PM
153	We really don't need more public land for hunting, trapping as our area has an abundance of state game lands which are only used for hunting and are pretty much off limits to other activities.	2/11/2020 8:02 PM
154	Will there be a volunteer group who make the park a hobby interest and develop ideas and create foot trails, etc. Like the way the Greenbelt started with individuals getting grants and laying limestone dust on the trail, cutting fallen trees, smoothing bumps, etc.	2/9/2020 6:55 PM
155	Music or event festivals could be fun, but how much would you need to expand parking? I just started going to Detweiler Park last year. I plan on going more often this year.	2/9/2020 5:05 PM
156	This is a natural resource and wildlife area, I would hate to see that ruined by adding such things as ballfields, etc. Water-ever is done with this property, please keep it within what the Detweiler family wanted and intended it to be used for.	2/7/2020 10:03 AM
157	It would be great if this park remained a natural area and was not developed into a big sporting/event complex. There are other facilities close by for kids sports and this area should remain for hiking and wildlife viewing.	2/6/2020 8:19 PM
158	It is a quiet treasure, enjoyable in all seasons. To "develop" it would be a shame.	2/6/2020 5:39 PM
159	How can one get to the park without a car? Is there public transportation, can you get an uber there, bike lanes/bike route to the park?	2/6/2020 12:05 PM

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160	Lovely park. Gradual change is essential	2/6/2020 11:35 AM
161	No playgrounds please.	2/6/2020 11:31 AM
162	It is so nice to have a well preserved natural space just a short drive from downtown Harrisburg. As a place to train for trail running, it is perfect!	2/6/2020 6:39 AM
163	No crazy loud, glittering colors for benches or buildings or other structures. Get them to blend in with the environment! No loud, noisy activities! We chased our native Americans off the property only a few hundred years ago so let's at least honor them by not being so intrusive that we lose what remains of existing wildlife and desirable plant life! I suppose this survey is a prelude to help develop a plan "kinda" like a vision, and mission statement for a quality organization. It's a great idea and I appreciate the opportunity to participate! Thank you!	2/6/2020 12:22 AM
164	Please don't change too much!	2/5/2020 6:34 PM
165	The park terrain could support an outstanding shared-use trail system that is needed in our County where kids can learn to ride and there is opportunity for the whole family.	2/5/2020 3:50 PM
166	The Detweiler parcel is a treasure for those who wish to experience the outdoors. The mountain trail, fields, woodlands and waterside environments provide unique opportunities to reconnect with our natural surroundings. The imposition of facilities and activities may destroy the unique aura of Detweiler Park. Care should be taken in the selection of activities and construction permitted in the park.	2/5/2020 3:10 PM
167	I think Detweiler should offer a gifting program. Dedicate a tree, planting/restoration area, picnic table, pavilion, etc. in honor of a loved one. A small, tasteful plaque can be placed there. If the option is promoted and easy to use, there could be plenty of interest.	2/5/2020 2:17 PM
168	enjoying the park is a daily routine unless there are strong winds or torrential rain. During this time no one I met was in favor of altering this great PARK	2/4/2020 9:41 PM
169	My favorite place to walk! I love the quiet walk through the woods.	2/4/2020 8:48 PM
170	RESTROOMS!!!	2/4/2020 8:36 PM
171	Mountain trail up top is very muddy. Trail that goes beside house and down to driveway and back up is VERY wet. Should not be a trail. Private residence next to Detweiler house has a dog that they say can/is aggressive? Not good having an aggressive dog charging a dog on leash. That is a big concern with the adjoining property owners that could previously let their dogs/animals run free and use the "park". I think they have adjusted but, there were times dogs would wander right up to you. Excited to see continued improvements/enhancements to the park.	2/4/2020 8:07 PM
172	It's a beautiful and tranquil park. I hope it stays that way.	2/4/2020 6:53 PM
173	Keep mountain bikes out. I work as a maintenance person at Governor Dick Park near Mt. Gretna, PA. Mountain bikers have ruined our trails in the park. They are arrogant and destroy our environmentally sensitive trails and refuse to follow our regulations. You may contact me at 717-875-0447 and I would be glad to talk about it or even show you the damage that they cause.	2/4/2020 5:50 PM
174	Please add a raised sustainably-constructed walkway along the stream. It gets too muddy to hike. Please make trails in woods less steep and more meandering or switch-back. Kudos to you for your careful and thoughtful preparation and planning. To see you take your time, gather info from the public, and consider our views is very nice. Impressive range of specialists on your committee! Would be cool if this space became a best-practices model for other parks around the country!	2/4/2020 5:39 PM
175	Please keep this beautiful, rustic park as it is!!!!!!	2/4/2020 4:26 PM
176	There's enough parks with tables and pavilions and baseball fields,	2/4/2020 4:19 PM
177	Bike trails of any kind are bad--erosion, soil compaction, etc. Just because bikers can be stewards doesn't mean they don't damage nature in their own way. There should also be limited lighting so people can enjoy the night sky.	2/4/2020 2:23 PM
178	Beautiful park, I would love to see more things happening here!	2/4/2020 1:50 PM
179	I STRONGLY urge you to keep this park natural, perhaps expand on the hiking trails, but do not add playgrounds or ball fields. This is one of few areas where I can take my dogs to enjoy a walk without needing to fully go into the woods	2/4/2020 12:23 PM
180	Would love to see youth programs offered to get our kids involved in caring for the environment & various outdoor recreational activities.	2/4/2020 12:02 PM
181	We haven't gone because there are no bathrooms.	2/4/2020 11:03 AM
182	Possibly consider providing a golf cart or trail wagon to give rides to those who have limited	2/4/2020 8:55 AM

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mobility due to arthritis, bad knees, etc. Maybe this is only provided once to twice a year with a "tour guide".

183	Believe airfield area would be conducive to large ponds for kids and vets to fish.As well as wildlife draw that families with young kids could enjoy from heights above.	2/4/2020 5:26 AM
184	I am concerned about opening hunting in the park. Middle Paxton Township has a significant amount of State Game Lands which provide fantastic hunting opportunities for hunters. We should continue to have a place to walk the dog without having to worry about hunters.	2/3/2020 9:32 PM
185	Thanks for listening!	2/3/2020 7:08 PM
186	Shared hiking and mountain biking trails, especially on the hillside would be nice.	2/3/2020 3:26 PM
187	you can't cut down trees and expect people to respect you when you talk about saving the forest.	2/3/2020 2:44 PM

Please note pages 77-87 reflect the final question where participants provided a email address if they would like to receive project updates and have been removed from the appendix.

ID	Type	Category ID	Category	Initial Comment	Creator ID	Create Date
374330	point	14999	Facts we should know	Location of Mr. Detweiler's original hunting stand.	272746	2/5/2020
374372	point	14999	Facts we should know	BAILEYS GROVE -- ADJACENT TO DETWILER PARK -- 1+ MILE OF STREAMSIDE ACQUIRED BY CENTRAL PA CONSERVANCY AND HELD BY PFBC FOR RECREATION AND PUBLIC ACCESS -- INCORPORATE INTO PLANS AND COLLABORATE ON STEWARDSHIP	272917	2/7/2020
374409	point	14972	Propose activity/amenity	Proposed Radio Control area for the Harrisburg Area Flying Society.	273051	2/9/2020
380461	point	14975	Photographs	Winter View South	274185	2/19/2020
380463	point	14975	Photographs	Autumn View East	274185	2/19/2020
380465	point	14975	Photographs	Detweiler House	274185	2/19/2020
380466	point	14975	Photographs	Bobcat track in snow.	274185	2/19/2020
380467	point	14975	Photographs	8-Point Watching does around scrape	274185	2/19/2020
380468	point	14975	Photographs	Fisher Tracks	274185	2/19/2020
380469	point	14975	Photographs	Typical Deer Aggregation	274185	2/19/2020
380470	point	14975	Photographs	Re: Meeting Notes 16 & 17. This trail approximates the "Cathedral/Tunnel Space" discussed.	274185	2/19/2020
380471	point	14975	Photographs	Wood Ducks - The ponds provides habitat for a number of at least transient waterfowl species including wood ducks, hooded mergansers, mallards, belted kingfishers and great egrets.	274185	2/19/2020
380472	point	14975	Photographs	Typical Red Squirrel Feeding Station - Red Squirrels are abundant throughout the conifer areas.	274185	2/19/2020
380475	point	14975	Photographs	Box Turtles are commonly found throughout the park. Often seen on dewy mornings.	274185	2/19/2020
380477	point	14975	Photographs	The Tiger Spiketail, a dragonfly species, is a specialized inhabitant of clean headwater streams.	274185	2/19/2020
380638	point	14975	Photographs	I believe this is the "secret field" referred to in Item 15 of the February 3rd meeting notes. The interior border of the of the field now contains a lot of Ailanthus trees and Oriental Bittersweet vines. The tall trees in the background are Tamaracks. The stand of Norway Spruce (center left) has what appears to be an old campfire site.	274185	2/25/2020
380639	point	14975	Photographs	Tamaracks are currently being engulfed by bittersweet vines.	274185	2/25/2020
380640	point	14975	Photographs	Old Campfire Site	274185	2/25/2020
380641	point	14975	Photographs	Old Field - Winter View	274185	2/25/2020
380643	point	14975	Photographs	Pileated Woodpeckers are commonly heard and seen throughout the park.	274185	2/25/2020
380645	point	14975	Photographs	Several stands of Pawpaws are located throughout the deciduous forest portion of the park.	274185	2/25/2020
380651	point	14975	Photographs	Dogwoods bloom in the spring in this area and along the field line to the north.	274185	2/25/2020
380652	point	14975	Photographs	This is a seasonally saturated wet area created by earth moving. It has the potential to be made into a vernal pond habitat.	274185	2/25/2020
380653	point	14975	Photographs	There is a woody debris dump located along the trail and directly above the stream. It is marked by a red reflector. This is just a bad idea - aesthetically and environmentally. The park needs a brush and woody debris management plan.	274185	2/25/2020
380654	point	14975	Photographs	Northern Goshawk (?)	274185	2/25/2020
380712	point	14975	Photographs	One of the many Red Squirrels found in the coniferous areas of the park.	274185	2/26/2020
380714	point	14975	Photographs	Schools of Blacknose Dace can be observed in the tributary pools.	274185	2/26/2020
380752	point	14972	Propose activity/amenity	Proposed alternate parking area for interpretive area and handicapped accessible trail. Recycle sign is a distraction and unnecessary. Other than directions and perhaps at the proposed interpretive area, signage should be eliminated. However, trail markings for direction could be improved throughout the park.	274858	2/27/2020
380753	point	14971	Points of Interest	Seasonal wetness along this trail.	274858	2/27/2020
380754	point	14971	Points of Interest	Seasonal wetness along this trail. I don't mind muddy feet, but this can become real mud-slogging at times.	274858	2/27/2020
380755	point	14971	Points of Interest	Aggressive neighbor's dogs. They appear to be on electric collars/invisible fence and remain on their property, but I could understand how some walker's in the park could be uneasy with their aggression.	274858	2/27/2020
380757	point	14971	Points of Interest	This part of the trail can also be quite wet/muddy. My preference is to leave some parts of the trail primitive and minimally improved. Muddy feet is part of the experience.	274858	2/27/2020
380758	point	14971	Points of Interest	This part of the trail can also be quite wet/muddy. My preference is to leave some parts of the trail primitive and minimally improved. Muddy feet is part of the experience.	274858	2/27/2020
380758	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380761	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380761	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380761	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380761	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380761	point	14971	Points of Interest	One of my favorite views. A great place to pause and listen to the birds. Noisy activities such as model airplane flying (as proposed at the public meeting) would be extremely disturbing.	274858	2/27/2020
380763	point	14971	Points of Interest	Mountain biking was requested at the public meeting. I am not sure where this activity would fit. There are many alternate mountain biking locations available: Swatara Creek State Park and Hershey for example. I believe that it would be hard on the trail and disruptive to other users (just as a shooting range would be). I would prefer to keep Detweiler Park a quiet place for people to reconnect with and learn about nature.	274858	2/27/2020
380763	point	14971	Points of Interest	Mountain biking was requested at the public meeting. I am not sure where this activity would fit. There are many alternate mountain biking locations available: Swatara Creek State Park and Hershey for example. I believe that it would be hard on the trail and disruptive to other users (just as a shooting range would be). I would prefer to keep Detweiler Park a quiet place for people to reconnect with and learn about nature.	274858	2/27/2020

Detweiler MP  
WikiMapping Comments  
SC 19060

380763	point	14971	Points of Interest	Mountain biking was requested at the public meeting. I am not sure where this activity would fit. There are many alternate mountain biking locations available: Swatara Creek State Park and Hershey for example. I believe that it would be hard on the trail and disruptive to other users (just as a shooting range would be). I would prefer to keep Detweiler Park a quiet place for people to reconnect with and learn about nature.	274858	2/27/2020
380764	point	14971	Points of Interest	Main parking area would be an excellent place for signage showing how Detweiler Park fits into the greater ecosystem. The Estuarium in Washington NC provides an introduction to that habitat and also shows the environmental impact from the mountains to the oceans. Perhaps Chesapeake Bay Foundation could provide support for this message.	274858	2/27/2020
380765	point	14999	Facts we should know	I was unable to upload the photo, but it illustrates a common problem that I have encountered in Detweiler and other walking trails. Dog walkers may bag their dog's waste, but then some will leave the bag at the side of the trail instead of removing it. I am not in favor of having trash receptacles along the trail and assume that maid service is not provided. How can pet owners be convinced to carry out?	274858	2/27/2020
380765	point	14999	Facts we should know	I was unable to upload the photo, but it illustrates a common problem that I have encountered in Detweiler and other walking trails. Dog walkers may bag their dog's waste, but then some will leave the bag at the side of the trail instead of removing it. I am not in favor of having trash receptacles along the trail and assume that maid service is not provided. How can pet owners be convinced to carry out?	274858	2/27/2020
380775	point	14972	Propose activity/amenity	Archery Hunting	274899	2/27/2020
380791	point	14975	Photographs	The wet seeps in this area of the trail provide hydration and minerals for butterflies, such as this Northern Spring Azure seen puddling.	274185	2/28/2020
380919	point	14975	Photographs	Wood Frogs breed in the wetland just upstream of the pond.	274185	3/3/2020
380921	point	14975	Photographs	Both Black and Turkey Vultures frequent the park.	274185	3/3/2020
380926	point	14975	Photographs	Forested Wetland - the multiple trunks on individual trees seen in the wetland are most probably the result of ice damage from the historic winter flood of 1996.	274185	3/3/2020
381635	point	14975	Photographs	Gray Squirrels are common throughout the deciduous forest areas of the park.	274185	3/31/2020
381637	point	14975	Photographs	Wild turkeys are occasionally observed at the park.	274185	3/31/2020
381638	point	14975	Photographs	Eastern cottontail rabbits are common throughout the edge habitats.	274185	3/31/2020
381930	point	14975	Photographs	Coyote Tracks	274185	4/16/2020
384285	point	14971	Points of Interest	There is a mature grove of Pawpaw trees located off this trail. Pawpaws are also found at locations along the Susquehanna River. The trees can be easily spotted among other trees because of their large, distinctive leaves.	277603	4/27/2020
384344	point	14972	Propose activity/amenity	boardwalk over muddy trail... or notification sign that mud lies ahead. families with small children or older people may appreciate this	277880	4/30/2020
384546	point	14999	Facts we should know	I owned the Peter Allen House from 1984-1989. In that time period, it was determined that the 2nd largest Chestnut Oak Tree in Pennsylvania is located on the parcel that was most recently owned by Allen Hyakawa. I hope that that tree is still there as timbering has taken place in the past 5 years. Acquisition of that parcel may well save that tree. I thought you should know, James S. Hoch	278507	5/8/2020
386579	point	14999	Facts we should know	Grasshopper Sparrows observed singing in this meadow on Friday, 5/15/2020. Possible nesting area for this species and others like it, which keep getting squeezed out of habitat. If this meadow will get mowed for hay, can mowing be held off until the grassland bird species' nesting dates have ended? Thanks!	279284	5/18/2020
386580	point	14999	Facts we should know	Red-winged Blackbirds observed singing and displaying in this meadow on Friday, 5/15/2020. Like the meadow next to the other property line where Grasshopper Sparrows were seen and heard singing on Friday, May 15, 2020, this meadow could be possible nesting area for grassland bird species, which keep getting squeezed out of habitat. If this meadow will also get mowed for hay, can mowing be held off until the grassland bird species' nesting dates have ended? Thanks!	279284	5/18/2020
386580	point	14999	Facts we should know	Red-winged Blackbirds observed singing and displaying in this meadow on Friday, 5/15/2020. Like the meadow next to the other property line where Grasshopper Sparrows were seen and heard singing on Friday, May 15, 2020, this meadow could be possible nesting area for grassland bird species, which keep getting squeezed out of habitat. If this meadow will also get mowed for hay, can mowing be held off until the grassland bird species' nesting dates have ended? Thanks!	279284	5/18/2020
387127	point	14972	Propose activity/amenity	community food forest	278701	5/19/2020
387127	point	14972	Propose activity/amenity	community food forest	278701	5/19/2020
387127	point	14972	Propose activity/amenity	community food forest	278701	5/19/2020
387128	point	14972	Propose activity/amenity	keep natural, enhance management for wildlife	278701	5/19/2020
387128	point	14972	Propose activity/amenity	keep natural, enhance management for wildlife	278701	5/19/2020
387128	point	14972	Propose activity/amenity	keep natural, enhance management for wildlife	278701	5/19/2020
387998	point	14975	Photographs	A small wetland tucked into the forest.	274185	5/21/2020
388086	point	14975	Photographs	Just a few of the common butterflies at the park. Clockwise: painted lady, common buckeye, monarch and meadow fritillary.	274185	5/23/2020
388087	point	14975	Photographs	In addition to the many butterflies, there is also an awesome population of hummingbird clearwing moths.	274185	5/23/2020
388091	point	14975	Photographs	A few of the dragonflies and damselflies at the park. Clockwise: eastern amberwing, common whitetail, ebony jewelwing and blue dasher.	274185	5/23/2020
388097	point	14975	Photographs	There is a dry channel here that probably carried the water that is currently flowing down the trail. Rather than moving the trail as proposed, it might be better to reconnect the water to the channel.	274185	5/23/2020
388895	point	14975	Photographs	Two bucks in velvet	274185	6/5/2020



388956	point	14972	Propose activity/amenity	If I were to propose one activity for Detweiler Park, it would be to open it up on a limited basis for upper level Dauphin County high school or perhaps community college students interested in field biology (as well as other sciences) to conduct small research projects. It would operate as a sort of mini biological field station. Upper high school or perhaps local community college students could submit proposals that would include a testable hypothesis, proposed research method(s), the name of a sponsoring faculty person, and a discussion of how the research would benefit the overall knowledge of the park. They would work primarily under the instruction of their teacher. A limited number of proposals (maybe 3 or so) would be blindly selected based solely on merit by a committee put together by the county. Perhaps, a small stipend from corporate or private donations could be provided to cover any needed equipment. (Any equipment used would remain property of the park for future student use.) I think this would be a win-win for both the park and the student and honor the Detweiler-Stackpole legacy. The student would gain valuable skills from the experience and the park would benefit from the knowledge obtained. I think there are endless opportunities in this regard.	274185	6/5/2020
388956	point	14972	Propose activity/amenity	If I were to propose one activity for Detweiler Park, it would be to open it up on a limited basis for upper level Dauphin County high school or perhaps community college students interested in field biology (as well as other sciences) to conduct small research projects. It would operate as a sort of mini biological field station. Upper high school or perhaps local community college students could submit proposals that would include a testable hypothesis, proposed research method(s), the name of a sponsoring faculty person, and a discussion of how the research would benefit the overall knowledge of the park. They would work primarily under the instruction of their teacher. A limited number of proposals (maybe 3 or so) would be blindly selected based solely on merit by a committee put together by the county. Perhaps, a small stipend from corporate or private donations could be provided to cover any needed equipment. (Any equipment used would remain property of the park for future student use.) I think this would be a win-win for both the park and the student and honor the Detweiler-Stackpole legacy. The student would gain valuable skills from the experience and the park would benefit from the knowledge obtained. I think there are endless opportunities in this regard.	274185	6/5/2020
389016	point	14975	Photographs	Autumn View West	274185	6/7/2020
389549	point	14972	Propose activity/amenity	The areas where evergreens were planted are now a monoculture, and should be harvested and cleared. In their place new mixed forest with representatives of native species should be replanted.	282484	6/14/2020
389549	point	14972	Propose activity/amenity	The areas where evergreens were planted are now a monoculture, and should be harvested and cleared. In their place new mixed forest with representatives of native species should be replanted.	282484	6/14/2020
390806	point	14972	Propose activity/amenity	A bench...it is a lovely site so rest and enjoy!	284074	6/25/2020
390813	point	14971	Points of Interest	Restroom	284098	6/25/2020
390814	point	14971	Points of Interest	Restroom	284098	6/25/2020
390815	point	14972	Propose activity/amenity	Use as multipurpose event building	284098	6/25/2020
390826	point	14972	Propose activity/amenity	bathrooms	284155	6/25/2020
390827	point	14972	Propose activity/amenity	Trails map (w/ distances)	284155	6/25/2020
390828	point	14972	Propose activity/amenity	Trails map (with distances)	284155	6/25/2020
390833	point	14999	Facts we should know	Invasive bamboo must be removed.	278697	6/25/2020
390903	point	14975	Photographs	Thisle	284388	6/27/2020
396421	point	14999	Facts we should know	Please put a directional sign so that the airstrip doesn't appear to be another trail	284925	7/1/2020
396422	point	14971	Points of Interest	Bluebirds	284925	7/1/2020
396423	point	14972	Propose activity/amenity	Wish we could see more of the creek	284925	7/1/2020
396424	point	14971	Points of Interest	Warbler habitat	284925	7/1/2020
396425	point	14972	Propose activity/amenity	There is a mowed area that looks like a trail, but ends up at the back of the house. Signage would be helpful.	284925	7/1/2020
396426	point	14972	Propose activity/amenity	Bench	284925	7/1/2020
399468	point	14975	Photographs	Based on LIDAR coverage, it is obvious that there are many headwater tributaries in this area of the proposed trail. This idea of simply picking areas and drawing lines without any type of onsite investigation into sensitive habitats is, without a doubt, one of the most absurd and baffling exercises I have ever witnessed.	274185	8/13/2020
400876	point	14975	Photographs	Apparently, this activity has been approved. An otherwise quiet morning hike was constantly being interrupted by the annoying buzzing drone of a toy airplane. It can be heard in all areas of the park. Not to mention vehicle and other interruptions to the field habitat.	274185	9/5/2020
1274168	line	14973	propose a trail	BAILEYS GROVE -- ADJACENT TO DETWILER PARK -- 1+ MILE OF CLARKS CREEK ACQUIRED BY CENTRAL PA CONSERVANCY AND HELD BY PFBC -- INCORPORATE INTO PLANS AND COLLABORATE ON STEWARDSHIP	272917	2/7/2020
1279349	line	14973	propose a trail	Proposed Radio Control area for the Harrisburg Area Flying Society.	273051	2/9/2020
1283355	line	14973	propose a trail	Multi-use: mountain biking, hiking, trail running	273608	2/14/2020
1283355	line	14973	propose a trail	Multi-use: mountain biking, hiking, trail running	273608	2/14/2020
1283355	line	14973	propose a trail	Multi-use: mountain biking, hiking, trail running	273608	2/14/2020
1283355	line	14973	propose a trail	Multi-use: mountain biking, hiking, trail running	273608	2/14/2020
1283355	line	14973	propose a trail	Multi-use: mountain biking, hiking, trail running	273608	2/14/2020
1283458	line	14973	propose a trail	This is an existing trail that can be observed from the Lidar coverage in GIS mapping. It crosses three headwater tributaries via perforated corrugated pipes. The pipes are largely silted shut; the middle one is silted to the extent that the flow leaves the channel during heavy flow and erodes a section of the trail until it re-enters the existing channel downstream. The pipes could be replaced with small bridges to protect the headwater tributaries. In general, the existing stream mapping poorly represents actual field conditions. I believe the Lidar imagery could be used to map a better stream tributary layer.	274185	2/25/2020

1283493	line	14973	propose a trail	Possible access from Route 325 eastbound to avoid left turn into park.	274858	2/27/2020
1283494	line	14973	propose a trail	Varied habitat may make an excellent interpretive trail: pond/waterlife, field/pollinators, young growth and mature forest. Grade may be slightly improved to provide accessible trail that provides shade and diversity in nature to promote interest and education.	274858	2/27/2020
1286009	line	14973	propose a trail	There is an existing trail stub here around the top of this hollow. It provides a nice view and would be a good be a good location for a bench or chairs.	274185	4/9/2020
1286010	line	14973	propose a trail	Thus is an existing trail that provides access to the forest and open wetland areas.	274185	4/9/2020
1289549	line	14973	propose a trail	a connector trail?	284074	6/25/2020
1289551	line	14973	propose a trail	Additional trail	284098	6/25/2020
1289552	line	14973	propose a trail	additional cross trails	284098	6/25/2020
1289552	line	14973	propose a trail	additional cross trails	284098	6/25/2020
1289552	line	14973	propose a trail	additional cross trails	284098	6/25/2020
1289552	line	14973	propose a trail	additional cross trails	284098	6/25/2020
1289552	line	14973	propose a trail	additional cross trails	284098	6/25/2020
1289553	line	14973	propose a trail	additional trail	284098	6/25/2020
1289554	line	14973	propose a trail	additional trail	284098	6/25/2020
1289569	line	14973	propose a trail	Provide a trail across the airfield meadow to allow for a shorter loop trail.	284388	6/27/2020
1289570	line	14973	propose a trail	Provide a trail across the field to allow for a shorter loop without going up the steeper grade.	284388	6/27/2020
1290294	line	14973	propose a trail	Re-route fall line trail w/ steep grade to control erosion. IMBA/SAMBA recommendation	290578	8/4/2020
1290295	line	14973	propose a trail	New shared-use loop with single access point. IMBA/SAMBA recommendation	290578	8/4/2020
1290295	line	14973	propose a trail	New shared-use loop with single access point. IMBA/SAMBA recommendation	290578	8/4/2020
1290295	line	14973	propose a trail	New shared-use loop with single access point. IMBA/SAMBA recommendation	290578	8/4/2020
1290295	line	14973	propose a trail	New shared-use loop with single access point. IMBA/SAMBA recommendation	290578	8/4/2020
1290296	line	14973	propose a trail	New shared-use trail loop with access points at east and west of existing trail at base of elevation change. IMBA/SAMBA recommendation.	290578	8/4/2020
1290297	line	14973	propose a trail	New shared-use trail loop. IMBA/SAMBA recommendation with single access point	290578	8/4/2020
1290297	line	14973	propose a trail	New shared-use trail loop. IMBA/SAMBA recommendation with single access point	290578	8/4/2020
1290298	line	14973	propose a trail	Existing pedestrian trail converted to shared use to allow MTB access to shared use trail from Conservation building. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290299	line	14973	propose a trail	New shared-use trail loop provides access to proposed disc golf area. IMBA/SAMBA recommendation.	290578	8/4/2020
1290300	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation.	290578	8/4/2020
1290300	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation.	290578	8/4/2020
1290300	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation.	290578	8/4/2020
1290301	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation creates clear loop and closes other trails creating confusion in the Pines area.	290578	8/4/2020
1290301	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation creates clear loop and closes other trails creating confusion in the Pines area.	290578	8/4/2020
1290301	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation creates clear loop and closes other trails creating confusion in the Pines area.	290578	8/4/2020
1290301	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation creates clear loop and closes other trails creating confusion in the Pines area.	290578	8/4/2020
1290302	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation. Creates clear loop and closes other trails in Pines area creating confusion.	290578	8/4/2020
1290302	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation. Creates clear loop and closes other trails in Pines area creating confusion.	290578	8/4/2020
1290302	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation. Creates clear loop and closes other trails in Pines area creating confusion.	290578	8/4/2020
1290302	line	14973	propose a trail	New shared-use trail loop with single access point. IMBA/SAMBA recommendation. Creates clear loop and closes other trails in Pines area creating confusion.	290578	8/4/2020
1290303	line	14973	propose a trail	New shared-use trail. IMBA/SAMBA recommendation. Creates option above existing trail for users looking for more challenging trail experience	290578	8/4/2020
1290303	line	14973	propose a trail	New shared-use trail. IMBA/SAMBA recommendation. Creates option above existing trail for users looking for more challenging trail experience	290578	8/4/2020
1290305	line	14973	propose a trail	Short new single access point trail loop for toddlers and small children using balance bikes or walking. IMBA/SAMBA recommendation.	290578	8/4/2020
1290305	line	14973	propose a trail	Short new single access point trail loop for toddlers and small children using balance bikes or walking. IMBA/SAMBA recommendation.	290578	8/4/2020
ers(*): 110	Lines: 26	Points: 79	Line comments: 40	Point comments: 30	Line Creator(*):	Line Commenter
er to input						



# Public Comment

**From:** [Brian Hoover](#)  
**To:** [Peter Simone](#); [Sarah Leeper](#); [Robert Gladfelder](#)  
**Cc:**  
**Subject:** Detweiler Park and HAFS  
**Date:** Tuesday, February 4, 2020 9:43:57 AM

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Hello, I am Brian Hoover, President of Harrisburg Area Flying Society (HAFS), a recreational model airplane club organized in Dauphin County for the last 40 years, which has recently lost our flying site due to transfer of the property by the State. Thank you for your informative and open discussion on the park ideas last night. We would like to become park partners, and also like to meet with you to discuss our idea in a little more detail. We would like to continue to use the existing airstrip to fly our model aircraft. After hearing the open discussion last night, what seemed to resonate with the public was to preserve the park's open spaces, keep the existing beauty of the park, hiking and biking trails, wildlife, etc. We believe that our proposal would fit well within the ideas and concepts that were presented last night. Our proposal would include flying within the existing airport loop trail and maintain beauty and open space which came out loud and clear last night. Our proposal would also be able to provide recreation opportunities for our current group of approximately 50 members. Importantly, we would also preserve and utilize the existing runway which would require no costs to develop and we would maintain a take-off and landing area that is less than 0.5% of the park acreage, again at no cost to the park or the County.

Please let me know if we can set up a time meet to discuss in more detail and answer any questions.

Thank you,  
Brian Hoover  
President, Harrisburg Area Flying Society

Frank Benson  
HIDDENWOOD DRIVE • HARRISBURG, PA 17110



February 10, 2020

Project Team, Detweiler Park Master Site Plan  
Via email

Re: Harrisburg Area Flying Society

Hello Team-

My name is Frank Benson and I am Vice President of the Harrisburg Area Flying Society (HAFS). I am a lifelong resident of Dauphin County and a very longtime member of HAFS.

HAFS has recently completed our 40<sup>th</sup> year of operation. Our President, Brian Hoover, recently wrote you regarding our club. I would like to expand upon that to provide some overview of our history of land stewardship and our ability to integrate into a mixed-use environment.

**Harrisburg Area Flying Society - Model Airfield**

US3313 - Last changed: 26.03.2015, 16:49:21 - Counter: 186

[Map View](#)



Koords: Latitude:40.2924, Longitude:-76.8651, Elevation (m): 145m, [Bing Maps](#)

As you can see from the photo at left, our current flying field on Elmerton Avenue is in close proximity to a number of varied use areas. To the immediate north, just a few yards away, are the Dauphin County Community Gardens. Just north of that is the PSECU Headquarters and PEMA. To our west is Farm Show and USPS parking. To the east is the PA Fish and

Boat Commission, and to the south is a farm field that is planted annually. We are good neighbors and are not disruptive to our community in any way.

The Harrisburg Area Flying Society is a chartered club of the Academy of Model Aeronautics (AMA). The AMA is the world's largest aviation club and is recognized

as the Community Based Organization (CBO) representing the model aviation hobby in the United States by the Federal Aviation Administration and participates in the FAA's rule-making process for radio-controlled aircraft. All of our members are required to be members of the AMA and to adhere to the FAA's and the AMA's rules whenever and wherever we fly. Additionally, club charter and individual membership in the AMA bestow substantial liability insurance coverage both for the club and the individual member.



As I previously noted, HAFS has been at our current field for over forty years. During that time, we have maintained and improved our field with each passing year.

Stewardship of the land is integral to the enjoyment of our hobby. We work tirelessly to maintain both the health and appearance of the field and the adjacent pit areas and would continue to do so if granted space in Detweiler Park. I've included several photos showing the current condition of our field.

The club would welcome the opportunity to answer any questions you may have concerning our hobby, our club operation, our ongoing stewardship of the land or how we would integrate into the Detweiler Park Master Site Plan. Thank you for your consideration and we look forward to hearing from you!

Regards-

*Frank J Benson*

## Sarah Leeper

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**From:** Karen Atwood  
**Sent:** Monday, May 18, 2020 12:26 PM  
**To:** Sarah Leeper  
**Subject:** Detweiler Park's meadows?

Dear Ms. Leeper,

I was looking at the Detweiler Park Master Plan survey, etc, and saw your contact information there. My husband and I just visited Detweiler for the first time this past Friday, and had a truly delightful hike. We saw and heard Grasshopper Sparrows -- haven't seen those in years! They have so little habitat available to them any more -- in the meadow on the, I guess it's the Eastern side of the park, near the park boundary with a little farmhouse or two, not too far from the trail where there's a sign on the edge that says Private Property. That meadow, and the meadow on the other side of the park, both look like they might be growing grass for hay? If that is so and there is a plan to mow those fields, can haying be done in the fall, or at least late enough in the breeding and nesting season, that grassland bird species species like Grasshopper Sparrows and Bobolinks and others line them could make it through their nesting/fledging and raising their young there, before haying would take place?

Off the top of my head I'm not sure what the exact timing of that would be, but perhaps the Conservation District folks are already aware of these matters and has already taken action along these lines...?

Thanks for any info./referrals.

Best, and Good Health,  
Karen

Karen E.H. Atwood, M.Ed.

**From:** [Brian Hoover](#)  
**To:** [Sarah Leeper](#)  
**Cc:** [Peter Simone](#); [Carl Dickson](#); [Frank Benson](#)  
**Subject:** RE: Detweiler Park and HAFS  
**Date:** Tuesday, May 19, 2020 11:08:26 AM

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Hi Peter and Sarah, just following up on below. We listened in on the meeting last week, but there was no mention of us as a possible use of the park, and we did not yet get an opportunity to speak with either your firm or the steering committee about our use of a portion of the existing airstrip. We believe we can fit well within the park theme. As you may know, we believe we are a key stakeholder, as we have been and organized club in Dauphin county for 40 years and are in the process of losing our current RC flying field. We have been granted temporary permission from Dauphin County to use the existing runway at Detweiler park for flying activities, and we have been mowing that section regularly. Can you please let me know when we can have an opportunity to discuss?

Thanks,  
Brian Hoover  
President, Harrisburg Area Flying Society

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**From:** Sarah Leeper [mailto:[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)]  
**Sent:** Friday, February 7, 2020 10:55 AM  
**To:** Brian Hoover <>  
**Cc:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Carl Dickson <[cdickson@dauphinc.org](mailto:cdickson@dauphinc.org)>  
**Subject:** RE: Detweiler Park and HAFS

Brian,

Thank you for your interest we will be in touch has the project progresses.

Thanks,

Sarah

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**From:** Brian Hoover <>  
**Sent:** Friday, February 7, 2020 8:33 AM  
**To:** Sarah Leeper <[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)>  
**Subject:** RE: Detweiler Park and HAFS

Thanks Sarah. Will there be an opportunity to meet with your firm? Most of our officers will not be able to come to the next public meeting, but I would like an opportunity to meet one on one for a brief meeting prior to then. Let me know if we can get something scheduled for that.

Thanks,  
Brian

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**From:** Sarah Leeper [<mailto:sleeper@simonecollins.com>]  
**Sent:** Thursday, February 6, 2020 4:00 PM  
**To:** Brian Hoover Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Robert Gladfelter <[rgladfelter@simonecollins.com](mailto:rgladfelter@simonecollins.com)>  
**Cc:** [cdickson@dauphinc.org](mailto:cdickson@dauphinc.org); Frank Benson  
; B Hoover (Home)  
**Subject:** RE: Detweiler Park and HAFS

Hello Mr. Hoover,

Thank you for attending Monday evening's meeting and following up with additional information, moving forward it will be helpful as with determine recommendations for the site program. We look forward to your and the Harrisburg Area Flying Society continued participation and feedback regarding the master plan process.

Thanks,

Sarah

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**From:** Brian Hoover  
**Sent:** Tuesday, February 4, 2020 9:44 AM  
**To:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Sarah Leeper <[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)>; Robert Gladfelter <[rgladfelter@simonecollins.com](mailto:rgladfelter@simonecollins.com)>  
**Cc:** [cdickson@dauphinc.org](mailto:cdickson@dauphinc.org); Frank Benson  
; B Hoover (Home)  
**Subject:** Detweiler Park and HAFS

Hello, I am Brian Hoover, President of Harrisburg Area Flying Society (HAFS), a recreational model airplane club organized in Dauphin County for the last 40 years, which has recently lost our flying site due to transfer of the property by the State. Thank you for your informative and open discussion on the park ideas last night. We would like to become park partners, and also like to meet with you to discuss our idea in a little more detail. We would like to continue to use the existing airstrip to fly our model aircraft. After hearing the open discussion last night, what seemed to resonate with the public was to preserve the park's open spaces, keep the existing beauty of the park, hiking and biking trails, wildlife, etc. We believe that our proposal would fit well within the ideas and concepts that were presented last night. Our proposal would include flying within the existing airport loop trail and maintain beauty and open space which came out loud and clear last night. Our proposal would also be able to provide recreation opportunities for our current group of approximately 50 members. Importantly, we would also preserve and utilize the existing runway which would require no costs to develop and we would maintain a take-off and landing area that is less than 0.5% of the park acreage, again at no cost to the park or the County.

Please let me know if we can set up a time meet to discuss in more detail and answer any questions.

Thank you,  
Brian Hoover  
President, Harrisburg Area Flying Society



**From:** [Brian Hoover](#)  
**To:** [Sarah Leeper](#)  
**Subject:** RE: Detweiler Park and HAFS  
**Date:** Tuesday, May 26, 2020 1:24:58 PM

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Sarah, thanks for your time today discussing the RC Airplane layout. I encourage you to walk it on your upcoming park visit, it is mowed regularly.

The requirements are as follows:

The runway is 700' long in the middle of the existing airstrip (700 long x 125 wide)

There is a 500' buffer zone we accommodated for on the East and West for safety for hikers and to keep us away from traffic on the road

The fly zone is over the meadow to the North only, up to the existing airstrip loop trail (before the treeline)

We do not fly to the south for safety, only from the runway to the North

A common area at the end of the runway would be an issue for safety

That is about it, if you have any questions please call me directly.

Thanks,  
Brian

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**From:** Sarah Leeper [mailto:[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)]  
**Sent:** Friday, May 22, 2020 3:20 PM  
**To:** Brian Hoover <[bhoover@riteaid.com](mailto:bhoover@riteaid.com)>  
**Subject:** RE: Detweiler Park and HAFS

I do not you can call my cell

Thanks,

Sarah

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**From:** Brian Hoover  
**Sent:** Friday, May 22, 2020 3:07 PM  
**To:** Sarah Leeper <[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)>  
**Subject:** RE: Detweiler Park and HAFS

OK I can use Webex if you use that or I'll just call you if you don't use Webex.

Thanks.

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**From:** Sarah Leeper [mailto:[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)]  
**Sent:** Friday, May 22, 2020 2:57 PM  
**To:** Brian Hoover  
**Cc:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Dickson, Carl <[CDickson@dauphinc.org](mailto:CDickson@dauphinc.org)>

**Subject:** RE: Detweiler Park and HAFS

No Problem – Tuesday at 1:00 pm when work for me.

Sarah

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**From:** Brian Hoover

**Sent:** Friday, May 22, 2020 1:55 PM

**To:** Sarah Leeper <[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)>

**Cc:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Dickson, Carl <[CDickson@dauphinc.org](mailto:CDickson@dauphinc.org)>

**Subject:** RE: Detweiler Park and HAFS

Hi Sara, we can best do by phone, I'm tied up the rest of the day with meetings, but I can do on Tuesday anytime except 11-12 and I'm also free most of Wednesday. Please give me a time that suits you and I'll give you a call then.

Thanks,  
Brian

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**Sent:** Friday, May 22, 2020 1:42 PM

**To:** Brian Hoover

**Cc:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>; Dickson, Carl <[CDickson@dauphinc.org](mailto:CDickson@dauphinc.org)>

**Subject:** RE: Detweiler Park and HAFS

Hello Brian,

In follow up to your phone conversation with Carl, Could you provide us with the space requirements you need for takeoff and landing – I believe you had mentioned it a one time but could not find the specific's in my records.

If you would like to discuss anything else you can reach me via my personal cell phone since we are currently working remotely.

Thanks,

Sarah Leeper

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**From:** Dickson, Carl <[CDickson@dauphinc.org](mailto:CDickson@dauphinc.org)>

**Sent:** Friday, May 22, 2020 1:01 PM

**To:** Sarah Leeper <[sleeper@simonecollins.com](mailto:sleeper@simonecollins.com)>; Brian Hoover

**Cc:** Peter Simone <[psimone@simonecollins.com](mailto:psimone@simonecollins.com)>

**Subject:** RE: Detweiler Park and HAFS

**From:** [Michael . McGraw](#)  
**To:** [Mark Embeck](#)  
**Cc:** ["Warshefski, Kayla"](#); [Sarah Leeper](#)  
**Subject:** RE: Box turtles of Detweiler Park  
**Date:** Monday, August 3, 2020 10:49:25 AM

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Hello Mark,

Thank you for sharing (I'm cc'ing Sarah from Simone Collins as well). I have appreciated, studied, and worried about *T. carolina* in the northeast for many, many years now. All too frequently I see their peril unfolding on the sides of roads (cars/trucks), edges of fields/lawns (mowers/tractors/tillers), and habitat loss (walmart/super churches, etc). I fought hard alongside various NJDEP officials to secure funding for directional drilling to create wildlife corridors under the NJ turnpike and GS Parkway back in the 90's with eastern box turtle being the primary reason. Sadly, the Sierra Club (oddly enough) did not support the initiative and used their lobbying power to kill our project and use it for some other wildlife initiative that their members thought more important. I guess they didn't think the way you and I do, apparently, about these amazing animals. You'll be pleased to know that the holistic approach to ecological restoration that we are proposing for the majority of the site is conducive to these amazing animals. The overwintering appears mostly in the woods near the water ways which will be untouched. Uncertain about nesting areas.... Breeding and foraging are likely heavily reliant on the fields.... Mammal and other predator populations could impact them as well. One positive note is that the detection probability of young box turtles is significantly lower than that of the adults. This offers some hope that there are unfound young, but with your dedication to the site and hours spent searching for wildlife I fear that I agree with your observational assessment of a likely paucity of recruitment. The fact that you do not see the same turtles ever is promising, however..... and suggest that perhaps the act of breeding and/or lack of breeding population animals isn't the case. Perhaps it is more a function of nesting habitat or other critical habitat being limited and/or an overpopulation of predators/mesocarnivores (skunk, raccoon, weasels, fox, etc). A bunch of other things eat turtles too (babies are eaten by snakes, other turtles, bullfrogs, small mammals, and a wide variety of birds).

The issue/scenario of having an aging population of turtles with little/no recruitment is not uncommon, sadly, due to the abovementioned and widely spread hazards. It's a prolonged eulogy..... Lets try to prevent that from happening here! I have recently been road tripping to Canada and Kansas/the true Midwest and the carnage of ornate, three-toed, and eastern box turtles throughout our highway system is enough to make a man cry (and did more than once).... I "rescued" (moved off of the road) literally over 100 live turtles and that was a very small percentage compared to the dead and dying ones.....

I truly appreciate this anecdotal, yet powerful assessment of recruitment (or lack thereof) at Detweiler. As you know, there are a few important habitat elements that are necessary to facilitate a breeding population. I've yet to find any locations on site that appear to be great nesting sites for these turtles. They are not powerful diggers and benefit from sandy areas to facilitate nesting. I wonder if we cant consider a location where we amend the soil with the specific intention of encouraging nesting. I have seen this issue with lack of recruitment in long-lived turtle species more than I'd like to (very sad how common it is in bog turtles.... ). Regarding the other elements, the

haying on site is likely doing a number during the harvest, as well as the mower maintaining the trails. The latter will remain the most difficult here (and on all nature preserves that manage trails), but the former should be a non-issue in coming years.

Regarding the education, we can add some signage (especially about people not taking them from the site!!!!) but the real education will be at the hands of the county naturalists and their programming (we are just designing the site, it will be the county's gem to cherish, study, and steward in perpetuity!). I agree this should be done, as well as some research. Perhaps you/we/the county could engage PAFBC and/or local universities and get someone to do some radio-telemetry to locate critical habitat areas and concentrates movement corridors. This could then pinpoint locations for habitat restoration/improvements (increase size of nesting habitat/remove barriers to accessing critical habitat areas/enact seasonal curtailments of mowing and other activities based on Kernel Home Range telemetry data, etc.).

As always, I appreciate your level of care and commitment to the exploration and stewardship of its wild inhabitants. Kudos!

Sarah – lets keep box turtles in mid for and signage or educational suggestions in the master plan.

Perhaps it could be a candidate for branding/Detweiler Logo?

Kayla – perhaps you guys can be thinking about some of these longer term programmatic and research-based initiatives to steward box turtles at the site?

Cheers,  
Mike

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**From:** Mark Embeck  
**Sent:** Monday, August 03, 2020 8:03 AM  
**To:** Michael J. McGraw  
**Cc:** 'Warshefski, Kayla'  
**Subject:** Box turtles of Detweiler Park

Hope all is well. I have been thinking a lot about box turtles lately. I went back through my box turtle photos and put them together in one document (attached) along with the date taken. I wanted to see if I could tell if I photographed the same turtle more than once. I don't think so. I do think I could still precisely locate each one on a site map. The first one was taken on the top of Meade's Mountain Loop and the last was taken on the lower wet corner of Frankie's Dogleg Loop – from the top of the park to the bottom of the park. Unfortunately, I haven't seen any young ones, yet. It's difficult (or more accurately depressing) to comprehend that a species with a potential lifespan exceeding well over 100 years can fail to recruit enough young into the population to sustain itself. Egg predation, habitat loss, disease, moving tires and mowers are their greatest foes. The turtle photographed 17 July 2020 appears to have had a bad encounter with a vehicle tire, but survived. Hopefully, the management plan will consider the future of the turtles – including population monitoring, habitat management, and education. Below are a few interesting websites concerning box turtles:

<https://www.ebtct.org/a-vanishing-species>

<https://boxturtle.uncg.edu/>

<http://herpetology.com/belzer/boxturtles.htm>

Best, and stay safe,  
Mark

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**From:** [Mark Embeck](#)  
**To:** [Peter Simone](#); [Sarah Leeper](#); "Mark Embeck"  
**Cc:** [Robert Gladfelter](#); [pazankel@comcast.net](mailto:pazankel@comcast.net); [amymey0702@gmail.com](mailto:amymey0702@gmail.com); [abrought@pa.gov](mailto:abrought@pa.gov); [cdickson@dauphinc.org](mailto:cdickson@dauphinc.org); [crebert@dauphinc.org](mailto:crebert@dauphinc.org); [foreverlee519@epix.net](mailto:foreverlee519@epix.net); [enaguski@dauphinc.org](mailto:enaguski@dauphinc.org); [gconnor@dauphinc.org](mailto:gconnor@dauphinc.org); [gregg@hhsportsandevents.com](mailto:gregg@hhsportsandevents.com); [josherrick@gmail.com](mailto:josherrick@gmail.com); [middlepaxtontwp@comcast.net](mailto:middlepaxtontwp@comcast.net); [justingao123@icloud.com](mailto:justingao123@icloud.com); [jwarren1@epix.net](mailto:jwarren1@epix.net); [szaino@manada.org](mailto:szaino@manada.org); [Peter Simone](#); [pfasano](mailto:pfasano); [Robert Gladfelter](#); "Josh First"; [KWarshiefski@dauphinc.org](mailto:KWarshiefski@dauphinc.org); [cdernbach@widener.edu](mailto:cdernbach@widener.edu); [kilbert@pennfuture.org](mailto:kilbert@pennfuture.org)  
**Subject:** RE: Third request for meeting minutes #5 and first request for meeting minutes #6  
**Date:** Friday, October 2, 2020 10:20:26 PM

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“We appreciate the work that you shared with Mike McGraw and AES. We also appreciate you holding our feet to the fire.”

Thank you, Peter.

Hope you and yours are well, also.

I’m not sure my work is done yet.

My initial grade for the plan would be a disappointing D+. Having spent 35 years in the environmental field, no offense, but overall much of it appears typically generic in scope and origin. I have definitely seen better site specific environmental reports.

The plan appears to be designed more to please an apparent predetermined view of “the public” (and, perhaps the ego of the designers – who doesn’t like squiggly trails on a map and God bless the wooden overlooks – how better to see nature?), rather than the habitat itself, or more importantly, *the land ethic* (i.e., the wishful and apparently forsaken forethought of Mr. Detweiler).

Who would have known mountain bike riders, toy aircraft flyers, and Frisbee enthusiasts are more important and should take up habitat space from other species like grasshopper sparrows and rattlesnakes? In my many 100’s of hours walking the site, everyone I have encountered would like the property to remain mostly wild with habitat improvements.

I came to the bittersweet vine cutting last summer. There were no perspective toy aircraft flyers present. There were no perspective mountain bike riders present. There were no perspective Frisbee flyers. There were only local citizens including a boy scout troop. No one from the steering committee I recognized. This just might be a representation of people that will actually do work at the park unrelated to a particular self-serving interest.

I invite the person that designed the new trails (or anyone else on this email that has any interest) to walk with me and show me the routes, as they are confusing and in some instances nonsensical; anyone interested can give me a call at 717-512-5395, to set up a time. I will accept any masking or social distancing requirements.

I have previously sent you a recommendation requesting that the county at take a harms versus benefits analysis regarding developments at the park that you promised to be shared with the committee.. The point being that at least we, the citizens, would know how the county weighed the decision for each development proposed in the draft plan – so much for democracy in local government, I guess.

I believe I also sent you the reason why we as citizens are owed this explanation under the PA Constitution.

In addition, I have also offered the following expectation of the people of local government concerning the future of the park:

In a landmark decision, the Pennsylvania Supreme Court opined the following:

*At present, the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property.*

Clearly, the natural resources at Detweiler park implicate the public interest.

John Dernbach et al. addressed the issue of whether the Robinson decision applies to municipalities as follows:

*... the plurality decision in Robinson Township affirmatively states that municipalities share in the constitutional obligations imposed by article I, section 27, and therefore the affirmative obligations imposed on the Commonwealth at the state level are imposed at the local level as well.*

As you may know, other than the Detweiler Stream Survey and Tiger Spiketail Dragonfly Report I have previously supplied, I have catalogued over 35 species of butterflies and over 15 species of dragonflies a, at the park. In addition, I have documented the following species: whitetail deer, black bear, coyote, fisher, porcupine, bobcat, skunk, red and gray squirrel, chipmunk, mole, American toad, bullfrog, green frog, wood frog, pickerel frog, snapping turtle, box turtle, garter snake, ringneck snake, milk snake and rattle snake. I have also provided the county 7 herbarium mounts of unique fern species.

These are just the observations of one old mud-bucket biologist. Additional biodiversity of the Detweiler property has yet to be explored. I implore the county to do so prior to development. Monies appropriated in the future should be prioritized to habitat, rather than people.

I am still looking for definitive information on how decisions are/were made and by whom. Everything you could provide on this detail would be gratefully appreciated. For instance, how, why, when and who decided that the habitat of old men flying toy airplanes, people riding mountain bikes and Frisbee players should and apparently do trump habitat for the existing wildlife. How much of the existing habitat needs to be compromised for a park with the supposed goal of maintaining a land ethic?

Thanks for your response.

As ever,

Mark

To the people on the steering committee – how much of the actual data are you actually seeing and reviewing? I would really appreciate knowing.

Thanks, Mark

**Q1 Please provide us with your comments and suggestions concerning the Draft Detweiler Park Master Plan Report.**

Answered: 17 Skipped: 0



## Detweiler Park Draft Master Plan Feedback Form

#	RESPONSES	DATE
1	Disc golf is a great idea!	1/26/2021 8:41 PM
2	A friend of mine said you were considering a disc golf course. That's great news! Now that the word is out, I'm hoping you get lots of feed back from the local DG community.	1/26/2021 5:38 PM
3	Disc golf would be a great addition.	1/26/2021 4:03 PM
4	I was selecting the feedback form to suggest a disc golf course. I was excited to already see it on the proposed map.	1/26/2021 3:59 PM
5	Please add a disc golf course to the park.	1/9/2021 9:26 AM
6	I've enjoyed the park and it is a beautiful part of the area. A friend suggested this idea to me and I think it is an excellent suggestion. I would like to suggest the creation of a disc golf course within the park. The great thing about these courses is that they often utilize unused space very well and bring another valuable asset that family and friends can use. Thanks for your consideration!	12/8/2020 12:22 AM
7	I would like to suggest that a frisbee Disc Golf course be added. This park is large enough and the variety of terrain (woods, fields and elevation change) to make it a desirable course.	12/7/2020 5:02 PM
8	Please do not create any disc golf or team sports areas in Detwiler Park. Citizens who support the park overwhelmingly do so for hiking and wildlife preservation. It's bad enough we're going to have to listen to construction noises during ongoing projects. We don't need to be hiking and hearing the whoops and screams of sports scaring off the wildlife. If we wanted to hike around soccer games we could go to plenty of other parks. Please don't turn Detweiler park into Shank Park.	12/7/2020 11:06 AM
9	Wetland restoration areas appear very close to non-park properties. If water infiltration to those properties has not been an issue in the past, perhaps it is the best interest of those property owners to leave those areas undisturbed. It would be a shame if changes caused flooding or property damage to those properties. Property owners on the fringe of the park should be given extra input into this process, and help with remediation should the implementation of this plan negatively affects their property.	11/4/2020 11:31 AM
10	Detweiler Park has been described as a "gem." Few who have visited would disagree. The proposed development of the park is analogous to a gem-cutter's task. The value can be enhanced or destroyed by the action taken by the planner. As a government-owned park, efforts to provide value to all constituents is admirable; however, it has been said that when you try to be everything to everyone, you accomplish being nothing of value to anyone. So what principles can guide the proposed development of the park? Meade Detweiler's goal to preserve and manage habitats is a good beginning. That does not mean that the site should be walled off from public use as a wildlife preserve. It presents an opportunity for the public to enjoy the quiet setting the park offers and, perhaps, establish a love for the outdoors. The overwhelming request by park visitors has been the preservation of the park's peaceful, quiet condition, perhaps seeking a refuge from their busy, noisy lives in the city and suburbs. Richard Louv uses the term "Nature Deficit Disorder" to describe our implicit need for such a refuge to reconnect with the outdoors. Unfortunately, personal fears inhibit initiative to experience nature. Detweiler Park could be seen as a gateway to further outdoor exploration. In planning public space, designers often include the familiar: What has been provided at other parks? As a result, there is a tendency to include elements and activities that we wish to leave behind in our work or homes and, yes, local parks. Detweiler's appeal is its uniqueness. Add those elements and activities that will enhance the benefits of an outdoor experience and eliminate those that are counter to peaceful enjoyment of the surroundings. Appropriate levels of environmental outreach and education would fit well in this setting. Before commenting on specifics of the plan, the methodology for public input should be discussed. Public commentary was sought through attendance at several meetings and completion of on-line surveys. Attendance at the meetings was limited after pandemic restrictions were announced. The public's voice was restricted to users with access to technology. Furthermore, the on-line surveys allowed groups with specific interests to skew the results through recruitment of like-minded respondents through social media. This was easily tracked by following the social media sites for these groups during this process. Many of the following insights were reinforced simply by walking the park trails and talking to other park visitors, but the thoughts are my own. Proposed park elements • ADA accessible trails will offer the outdoor experience not available in many other venues and the board should be commended for considering this	11/2/2020 5:42 PM

## Detweiler Park Draft Master Plan Feedback Form

amenity. Asphalt is a poor choice as a surface material. The environmental impact, detraction from the natural experience and danger in wet/icy weather should not be disregarded. Other material should be considered. Please reconsider the surface material. • Native surfaces should be the predominant choice for trails. They are easier on the feet, provide a natural feel and are less likely to result in slips/falls. • Footbridges, Boardwalks & Observation Platforms are attractive amenities. They can also be the focus of vandalism. Please consider the maintenance expense and use these in a limited setting. • Restrooms are a necessity. Please restrict their construction to the park entrances. • Pavilions are indeed a great place for people to gather, which causes concerns about encouraging hangouts and vandalism. Please limit the size of them, keep them close to the park entrance(s) and actively manage them if they are to be included in the final plan. There are many other parks that have pavilions available for such gatherings. • Deer fencing may help to address a pervasive problem, but please consider the expense of building and maintaining this enclosure. Is this meant to be a permanent or temporary solution? • Disc golf doesn't seem to fit. Aside from the environmental impact, the maintenance expense should be considered. From observations at other parks, disc golf will become a neglected area after the initial novelty wears off. There are other parks that may be better suited for this activity that are closer to a greater population of residents. • Playgrounds can be found at almost every park in the area. Inclusion of a playground at Detweiler Park should only to serve as a gateway for further exploration of the trails. The intent should be to get visitors of all ages to explore the natural areas of the park and get away from playground equipment. • Mountain biking has adverse environmental impact, but there are other concerns. Placement of mountain biking trails in the area most susceptible to erosion and intrusion on wildlife habitat is hard to understand. Conflicts between pedestrians and bikers are inevitable. The proposed "self-enforcement" is not an effective method as demonstrated by the proliferation of unleashed dogs and "doggy bags" in the park. Mountain biking was actively lobbied by bike clubs and does not represent the views of the majority of visitors in conversations with other park visitors. The given justification for inclusion of mountain bike trails seems contradictory. It indicated that the proposed trail would likely only be used by experienced mountain bikers, while concurrently expressing that its length is intended to attract younger riders for skill development. While a need for this activity was expressed, environmental concerns were dismissed with comments that it would not get very much use. There are numerous mountain bike trails in the area, some that presently get very little use, such as Weiser State Forest that is within 30 minutes drive of Detweiler Park, as well as many other trails linked on the bike clubs' websites. Mountain biking is not a good fit for Detweiler Park. • Buffers and fencing: Fences make good neighbors. Efforts to preserve the neighbors' sense of privacy and quiet are encouraged. • Signage on the trails should be limited to directional and/or safety notices. Interpretive signage should be limited to the proposed education center and park entrances. Links could be provided to field guide sites for anything from pollinators to PA herps for further inquiry by visitors. Please don't clutter the trails with signs, whether wildlife identification, corporate sponsorships, or "this structure is made of recycled material." Keep it natural. • Site furnishings: Natural materials such as log benches are preferable to orange chairs. Trash receptacles would be welcomed at the park entrances rather than throughout the trails. "Leave No Trace" principles should be highlighted at entrance points, which will serve to educate the public and reduce maintenance expense. • Habitat boxes are encouraged, especially in the area by the education center. • Regional Trail Connections that result in moderate loop trails are highly valued. Loops in the range of 8-15 miles make good day hikes. The proposed 29-mile loop would require overnight camping. The Peters Mountain shelter on the Appalachian Trail is the only site available for camping along the proposed loop, but it is fairly close to Detweiler Park. What other camp sites are being considered? The proposed trail connection to the Appalachian Trail should be reconsidered. Route 225 does not provide safe egress. Furthermore, bicycles are not permitted on this section of the Appalachian Trail, so a connector trail from the proposed mountain bike trail is ill-advised. Draft Master Plan The park plan unveiled in May of 2020 was very discouraging. It appeared to disregard the public's preferred use of the site and conservation ideals of the area. The current plan is vastly improved, but significant concerns remain. • Frankie's Dogleg: o Multiple park access points and parking areas may disseminate visitors through different areas of the park, but complicate security. Please consider security measures that will mitigate this risk. o This is the ideal location for the proposed education center with associated interpretive, children's area and ADA-accessible trails. o The proposed disc golf is not merely superfluous, but it is contrary to the ecological vision that could be presented here. o Support of the E. J. Stackpole Memorial Fishery is commendable and a good tie-in to the Detweiler Park story. Safe crossing of Route 325 is a concern. Would a tunnel under the road, similar to the Appalachian Trail crossing under Wertzville Road, be feasible? o This is also a good location to demonstrate preferred storm-water practices. Please supplement the rain garden with a

## Detweiler Park Draft Master Plan Feedback Form

description of the Clean Water Act, MS4 programs and the Chesapeake Bay watershed from the headwaters at Meade's Mountain trail to the bay. Illustration of the impact of impervious surfaces on pollution and its public cost would be an easy addition to this area. • Forest Restoration Area o Good balance of access and forest management. o ADA/children/family access is well conceived. • David's Meadow o Public exposure to streamside habitat can tie in well with watershed educational opportunities. o There is no positive purpose in bike trails at this park. o Please eliminate asphalt paths and use natural materials. • Meade's Mountain o Footpaths only in this area may be kept as natural as possible. Mountain biking is not conducive to the protection and enhancement of environmentally sensitive areas set forth in the plan. o Consider potential trail maintenance through local hiking clubs such as Susquehanna Appalachian Trail Club. • Airstrip Meadow o The airstrip meadow is probably the most visually attractive area in the park. The view of the mountain, fields, stream and distant Susquehanna River present excellent opportunity for public education and awareness of the watershed's importance. It should be preserved, not cluttered with what one commenter characterized as "theme park" amenities. o There is great opportunity to observe pollinators, birds and other wildlife in this area. o The additional access point from Peters Mountain Road may disseminate visitors through different areas of the park. Please consider appropriate security measures. o An event lawn if limited in size and use could be beneficial. Care should be exercised in selecting events to minimize noise and disruptions to other park visitors and neighbors. o The proposed hanger/flex space could be utilized for community outreach. o A playground should not be the focus of the park, but should draw visitors to the trails. One playground appears sufficient with better placement in Frankie's Dogleg. o Pavilions, if included, should limited in size and actively managed. o The proposed campground may be troublesome. A small area for primitive camping might be beneficial if used only for programs such as star-gazing and is actively managed. Fee-based camping for the general public would create problems. o The HAFS airstrip is a nuisance. While the hobby uses small physical space, it generates noise that permeates the entire park. Although some of the toy planes are low decibel and less noticeable; many range from the pervasive whine of a leaf blower to a large chainsaw. The noise from the additional mowing by the air club to maintain the airstrip could be eliminated. This relatively small group of users should not be allowed to infringe upon the rest of park visitors' peaceful and quiet experience. The value of quiet is being underestimated in allowing this activity to continue. o Please eliminate the bike trails and use natural trail surfaces. Programming & Revenue The park as a revenue source should be reconsidered. The park exists to serve the public good. There are some activities that could generate supplemental revenue, but establishment of programs simply to earn revenue is misguided. Attendance at nature based programs at Wildwood Park demonstrates the popularity of such programs. However, large group activities would be harmful to the park and would stress the rural roads that lead to the park. The proposed plan mentions such activities as flea markets, farmers markets, arts in the park, beer garden, summer concerts and festivals. These activities would be better suited to parks such as Fort Hunter that is closer to population centers and roads that support the additional traffic and safety requirements. The proposed development cannot be everything to everyone and succeed. Many of the proposed activities are desirable and enjoyable. The decision must consider whether each of those activities belongs at this park. The board is encouraged to develop a vision for the park, rather than allow it to become a repository of every contemplated use. Development should adhere to principles that support that vision.

11	For your consideration, an article about natural reforestation versus replanting. WIRED: Is It Better to Plant Trees or Let Forests Regrow Naturally?. <a href="https://www.wired.com/story/is-it-better-to-plant-trees-or-let-forests-regrow-naturally/">https://www.wired.com/story/is-it-better-to-plant-trees-or-let-forests-regrow-naturally/</a>	10/31/2020 11:53 AM
12	I am not in favor of the proposed changes. I appreciate the current layout and usage.	10/26/2020 1:08 PM
13	Please do not remove the pond. As a still pool of water it offers a unique opportunity for reflection and tranquility that is not common at other public outdoor sites. Also, please consider keeping any new playground and picnic areas near the main entrance and parking areas so that the noise that will rise from their use will not disturb the peace of the other of the park.	10/26/2020 12:49 PM
14	Don't think this is the place for mountain bikes. 1. there are other avenues in which to bike 2. bikes would destroy vegetation 3. what would happen when bikes and hikers met? (hikers on bike trails and vice versa) 4. biking would detract from the quiet of nature With dog parks would dogs also be permitted on hiking trails. Patrons do not lease their dogs now while walking the trails despite the rules.	10/24/2020 3:17 PM
15	I have visited the park twice and read the master plan. I feel that the park should be limited to	10/22/2020 7:56 AM

## Detweiler Park Draft Master Plan Feedback Form

hiking and walking only, no bikes as they present a hazard to hikers. I know from personal experience. I agree with the removal of invasive species and planting of native trees and shrubs. Removal of trees at some point may be necessary due to age and regeneration of species, but too much will affect the natural beauty of the park and the unique experience of a mature forest. A nature center that would educate people about the history of the park and the importance of preserving forested land is a good idea. Soccer fields and baseball fields would detract from the intended use of the park as it would create noise and trash refuse. I would recommend that the park be kept as is but would like to see the fields used for wildlife feed and not soccer fields.

16	I have participated in public comments and all of the public meetings so far because I care about this valuable county resource. I was extremely pleased that you have listened to the feedback and incorporated many of the ideas, including the permaculture food forest. I was also impressed that you removed the baseball diamond area. I think that the park will be so much nicer without it. The cooperation with the hatchery and the new entrances, parking, and safe turn lanes also caught my attention. Congratulations and I look forward to years of enjoying this thoughtfully designed park.	10/19/2020 11:15 AM
17	My wife and I totally enjoy walking the trails in the park. Would like to keep it natural and avoid any additional commercial additions. Thank you 😊	10/4/2020 4:45 PM

# Citizen Data and Design Standards

Report on the Breeding Bird Species of Detweiler Park

*Results of Initial Survey with suggestions  
for Maintaining Avian Diversity*



*Written by Eli DePaulis*

*Edited by Jane Webster*

*Photos by Eli DePaulis*

ISSUED: August 1, 2017

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## Background

Detweiler Park is a 400-acre tract of land located near Harrisburg in Dauphin County, Pennsylvania. It is home to a diverse array of ecosystem types including wetlands, conifer plantations, agricultural grasslands, and mature hardwood forests. The property was acquired by the Dauphin County Department of Parks and Recreation (DCPR) in late 2016 and on June 19<sup>th</sup>, 2017 it was opened to the public as a county park.

Historically, the property was owned and managed by Meade D. Detweiler III. Mr. Detweiler was an avid conservationist who did his best to manage the natural resources of his property as a sustainable ecosystem (DCPR 2017). His contributions to conservation in the region extend beyond simply managing his property for wildlife. For example, Mr. Detweiler provided land for the Dauphin County Conservation District's headquarters, and he allowed the Dauphin County Anglers and Conservationists to meet on his property (DCPR 2017).

Mr. Detweiler wrote a letter in 1993 stating his vision for the future: "The property should be an area where habitats are preserved and managed in perpetuity for wildlife based on sound ecological principles that demonstrate strong land ethic".

Knowing the species in existence at a site is key to implementing ecologically sound management, and it was under this principle that we undertook a breeding bird survey of Detweiler Park. Birds are excellent indicators of ecosystem integrity (Koskimies 1989), and they are relatively simple to survey. This survey may be used as baseline data for future reference, as it was conducted before Detweiler Park was opened to the public.

## Methods

The goal of this survey was to identify the birds breeding within Detweiler Park. To accomplish this task, we divided the park into five sectors (see Appendix I). The sector boundaries were selected to contain areas with similar habitat. Each sector was crossed by one to three transects running east to west (with the exception of sector two, which had a transect running from west to east). Within each sector, transects were parallel and spaced 150 meters apart. Each transect was within a single sector (See Appendix II). The distance between adjacent transects from different sectors varied because transects were set at a bearing which was appropriate for adequate coverage of that sector. This did not compromise the survey, because our goal was to identify the breeding bird species at the park, and not to quantify the number of individuals of each species breeding in the park.



Bearings for each sector were as follows:

Sector	Bearing and Direction	Number of Transects
1	60 <sup>o</sup> east to west	3
2	260 <sup>o</sup> west to east	1
3	70 <sup>o</sup> east to west	3
4	75 <sup>o</sup> east to west	2
5	75 <sup>o</sup> east to west	3
Total: 5 Sectors	-----	12 Transects

Note- Transect bearings do not include declination, which for this survey was 5<sup>o</sup> to the east. Magnetic north was used.

Each transect was walked by surveyors competent in the identification of eastern bird species by sight and sound. All birds seen during this survey were recorded on a data sheet in the field and then transferred to eBird, an online data collection and processing system developed by the Cornell University’s Lab of Ornithology, used by ornithologists worldwide.

For the purposes of this protocol a bird would be considered “rare” if flagged by eBird for additional review. Any “rare” bird would require some form of voucher, either a photograph or audio recording that would not cause distress to the bird while being obtained. All “rare” birds without vouchers would be listed as provisional species.

Every species seen on each transect was assigned an eBird breeding code based on observed behavior. The breeding codes for the purposes of this survey and their interpretations as defined by the Lab of Ornithology are in Appendix III.

If a species was observed more than once in a sector, the highest appropriate code was assigned to it. Birds seen in more than one sector were assigned a separate breeding code for each sector.

Only birds sighted within “safe dates” (assigned for each species by ornithologists who developed the protocol for the Second Atlas of Breeding Birds in Pennsylvania) were counted for this report to ensure that non-breeding species were not mistaken for breeding species. If a species was encountered on the survey, and it happened to be outside its safe dates, that species was added to the provisional list.

All surveys were conducted between the hours of sunrise and 12:00 pm. Each transect was completed in its entirety on the day it was begun. All transects were completed between June 12 and June 18, 2017. Every species seen or heard during the course of the survey was recorded. This survey was not a point count, meaning that surveyors did not need to be at a specific location to observe a bird.

## Data and Analysis

### **Birds Detected and Breeding Status**

This report's analysis breaks down the species detected into the following categories: Confirmed Breeder, Probable Breeder, Possible Breeder, and Observed/Flyover Species. The last category indicates the presence of a bird in the park, but doesn't contribute any information as to its breeding status. A list detailing all the species detected in the park, each in its respective category based on the highest breeding code it received during the course of the survey, is included below. All lists are in taxonomic order.

During the course of the survey, 64 bird species plus 1 taxon (i.e. identified to the genus or family level) were detected. Of those, 56 species plus 1 taxon were potential breeders: 8 species were Confirmed Breeders, 21 species plus 1 taxon were Probable Breeders, and 27 species were recorded as Possible Breeders.

Some notable species detected include Grasshopper Sparrow, Eastern Meadowlark, Louisiana Waterthrush, and Northern Parula. More information on these species follows in the Sector Analyses.

### **Taxonomic List of the Bird Species detected by the Detweiler Breeding Bird Survey**

#### **CONFIRMED** (8 species)

Acadian Flycatcher- Carrying nesting material

Eastern Phoebe- Occupied nest

Red-eyed Vireo- Carrying nesting material

Blue Jay- Distraction display

Eastern Bluebird- Occupied nest

American Robin- Occupied nest

Scarlet Tanager- Carrying food

Indigo Bunting- Recently fledged young

#### **PROBABLE** (21 species plus 1 taxon)

Mallard- Pair in suitable habitat

Downy Woodpecker- Pair in suitable habitat

Hairy Woodpecker- Pair in suitable habitat  
Pileated Woodpecker-Pair in suitable habitat  
White-eyed Vireo-Agitated behavior  
American Crow- Pair in suitable habitat  
Chickadee spp.- Multiple singing males  
White-breasted Nuthatch- Pair in suitable habitat  
House Wren- Wren/woodpecker nest building  
Blue-gray Gnatcatcher- Agitated behavior  
Wood Thrush- Multiple singing males  
Gray Catbird- Agitated behavior  
Cedar Waxwing- Pair in suitable habitat  
Ovenbird- Multiple singing males  
Common Yellowthroat- Pair in suitable habitat  
Grasshopper Sparrow- Agitated Behavior  
Field Sparrow- Pair in suitable habitat  
Eastern Towhee- Pair in suitable habitat  
Northern Cardinal- Pair in suitable habitat  
Red-winged Blackbird- Visiting probable nest site  
Eastern Meadowlark – Visiting probable nest site  
Common Grackle- Pair in suitable habitat

**POSSIBLE** (27 species)

Wild Turkey- Singing male  
Red-shouldered Hawk- In appropriate habitat  
Red-tailed Hawk- Singing male  
Killdeer- In appropriate habitat  
Mourning Dove- Singing male  
Ruby-throated Hummingbird- In appropriate habitat  
Red-bellied Woodpecker- Singing male

Detweiler Breeding Bird Survey

Northern Flicker- Singing male  
Eastern Wood-Pewee- Singing male  
Great Crested Flycatcher- Singing male  
Blue-headed Vireo- Singing male  
Tree Swallow- In appropriate habitat  
Barn Swallow- In appropriate habitat  
Tufted Titmouse- Singing male  
Carolina Wren- Singing male  
Northern Mockingbird- Singing male  
European Starling- In appropriate habitat  
Worm-eating Warbler- Singing male  
Louisiana Waterthrush- Singing male  
Hooded Warbler- Singing male  
American Redstart- Singing male  
Northern Parula- Singing male  
Prairie Warbler- Singing male  
Chipping Sparrow- Singing male  
Song Sparrow- Singing male  
Baltimore Oriole- Singing male  
American Goldfinch- Singing male

**OBSERVED/FLYOVER** (8 species)

Canada Goose  
Wood Duck  
Great Blue Heron  
Turkey Vulture  
Bald Eagle  
Chimney Swift  
Fish Crow

Brown-headed Cowbird

## **Provisional List**

According to the protocol, species flagged as “rare” by eBird were moved to the Provisional list if no voucher was taken (Common Raven). Species outside of their “safe dates” were to be listed as Provisional as well, however, none were detected during the survey.

Other species on the Provisional list were detected on three or more transects. While they did not receive a breeding code that would confirm the species as a breeder, their ubiquity during their safe dates increases confidence that they do breed somewhere on the site.

Due to the limited timeframe of the survey and the high standards the protocol required to list a species a Confirmed Breeder, these species were listed as either Probable or Possible. Future surveys are likely to result in confirmation of breeding status.

Anecdotal evidence supports this as well. In Sector 3 an Ovenbird nest with young was seen, and a Common Yellowthroat was seen carrying food. These observations would be sufficient to confirm breeding, however, both occurred outside the dates of the survey and the observer was not walking a transect, so according to the protocol they could not be used.

### **Taxonomic List of the Bird Species Listed as Provisional**

#### **PROVISIONAL** (1 species)

(flagged as “rare” by eBird; no voucher)

Common Raven- In appropriate habitat

#### **PROVISIONAL SPECIES FOR FURTHER STUDY** (27 species plus 1 taxon)

(seen on 3 or more transects)

Wild Turkey

Mourning Dove

Red-bellied Woodpecker

Downy Woodpecker

Hairy Woodpecker

Northern Flicker

## Detweiler Breeding Bird Survey

Pileated Woodpecker  
Eastern Wood-Pewee  
American Crow  
Chickadee Spp.  
Tufted Titmouse  
White-breasted Nuthatch  
House Wren  
Carolina Wren  
Wood Thrush  
Gray Catbird  
Cedar Waxwing  
Ovenbird  
Common Yellowthroat  
Hooded Warbler  
Grasshopper Sparrow  
Field Sparrow  
Song Sparrow  
Eastern Towhee  
Northern Cardinal  
Red-winged Blackbird  
Eastern Meadowlark  
American Goldfinch

### **Sector Breakdowns**

A breakdown of each sector is included to show the species detected there in their respective categories. At the end of each sector breakdown there is a discussion about the sector, and any conservation concerns are noted in this section. Suggestions for the sustainable management of each sector are included throughout the discussion section of each breakdown.

Sector: One

Transects: One, Two, and Three

**CONFIRMED** (1 species)

Scarlet Tanager- Carrying food

**PROBABLE** (4 species)

Downy Woodpecker- Pair in suitable habitat

Hairy Woodpecker- Pair in suitable habitat

Wood Thrush- Multiple singing males

Ovenbird- Multiple Singing male

**POSSIBLE** (18 species)

Wild Turkey- Singing male

Red-bellied Woodpecker- Singing male

Northern Flicker- Singing male

Pileated Woodpecker- Singing male

Mourning Dove- Singing male

Eastern Wood-Pewee- Singing male

Great-Crested Flycatcher- Singing male

Red-eyed Vireo-Singing male

Carolina Wren- Singing male

Blue Jay- In appropriate habitat

American Crow- In appropriate habitat

Tufted Titmouse- Singing male

White-breasted Nuthatch- In appropriate habitat

Cedar Waxwing- Singing male

Hooded Warbler- Singing male

American Redstart- Singing male

Northern Cardinal- In appropriate habitat

Indigo Bunting- Singing male

### Sector One Analysis

Sector one is the largest forested sector in the park. It is unique because it is a largely unfragmented forest, an ecosystem type that is becoming increasingly rare in Pennsylvania (pers. obs.). Unfragmented forests are at a reduced risk of ecological collapse, and support numerous species that do not occur in fragmented forests. In addition, this forest has not been harvested as recently as the forests of neighboring properties, enhancing its value to species that require mature forests.

During the course of collecting data in sector one, surveyors noticed adverse impacts of overabundant White-tailed Deer (pers. obs.). In many places, the forest understory was extremely reduced, a sign of over-browsing by deer (Flader 1974). Very few oak (*Quercus* spp.) and pine (*Pinus* spp.) saplings were seen while working in this sector, although larger individuals of both species were found. Deer eat young oaks and pines, resulting in the lack of trees available to replace older trees that die.

Extensive areas covered with Japanese Stiltgrass, an invasive groundcover from Asia, and Hay-scented Fern were noted by surveyors. Because deer do not consume these two species, they proliferate (Frye 2006).

Maintaining native plant communities and ensuring their regeneration is important to maintaining insectivorous bird populations. Native oak and pine species alone support over 500 species of Lepidoptera, the larvae of which are a vital food source for insectivorous bird species (Tallamy 2007).

The value of this unfragmented forest could be maximized by maintaining it in a healthy state. It is advisable to implement a vegetation survey to further investigate the impact of deer on the regeneration of native plant communities within the sector. By studying and quantifying plant communities, a scientific and ecologically sound deer management protocol can be implemented which will further the goal of maintaining Detweiler Park as a place where habitats are managed in ways that display a strong land ethic.

### Sector: Two

### Transect: Four

**CONFIRMED**

N/A



**PROBABLE** (2 species plus 1 taxon)

Chickadee spp.- Pair in suitable habitat  
American Robin- Pair in suitable habitat  
Ovenbird- Pair in suitable habitat

**POSSIBLE** (16 species)

Hairy Woodpecker- Singing male  
Eastern Phoebe- Singing male  
Red-eyed Vireo- Singing male  
Blue Jay- In appropriate habitat  
American Crow- In appropriate habitat  
Tufted Titmouse- Singing male  
White-breasted Nuthatch- Sing male  
Wood Thrush- Singing male  
Gray Catbird- Singing male  
Common Yellow-throat- Singing male  
Hooded Warbler- Singing male  
Field Sparrow- Singing male  
Eastern Towhee- Singing male  
Scarlet Tanager- Singing male  
Northern Cardinal- Sing male  
Indigo Bunting- Singing male

Sector Two Analysis

Sector two is characterized by a distinctive ecotone between the forested and agricultural grassland areas. The forested areas of sector two are comparable in composition to those of sector one. Heavy deer impact is evident, with diversity of groundcover species even more limited than in sector one. Some areas have bare soil which is clearly being eroded. Regeneration of native tree species is highly limited, resulting in a clear understory. The northern border of sector two is a timber harvest area on a neighboring property, which is dominated by shrubs.

Ailanthus or Tree-of-Heaven, an invasive tree species from Asia, is well established. It is important to control this prolific species (Jackson undated publication). Eradication of Ailanthus in sector two should be accompanied by planting native species.

Parts of this sector have yet to be invaded by herbaceous invasive species found in other sectors. These areas could be targeted for a deer excluder fence. Having an excluder fence would help maintain native plant communities by decreasing competition from the invasive plant species that are perpetuated by deer. In turn, these native plants would help support insect communities vital for many songbirds (Tallamy 2007) (Primack 2014). Vegetation restoration would also assist in reducing soil erosion (Primack 2014). Continuous monitoring of invasive species at this site could ensure populations of invasive species are minimized.

### Sector: Three

#### Transects: Five, Six, and Seven

##### **CONFIRMED** (4 species)

Acadian Flycatcher- Carrying nesting material

Blue Jay- Distraction display

American Robin- Carrying food

Indigo Bunting- Recently fledged young

##### **PROBABLE** (16 species plus 1 taxon)

Pileated Woodpecker- Pair in suitable habitat

American Crow- Pair in suitable habitat

Chickadee spp.- Multiple singing males

White-breasted Nuthatch- Pair in suitable habitat

Wood Thrush- Pair in suitable habitat

Grey Catbird- Agitated behavior

Cedar Waxwing- Pair in suitable habitat

Ovenbird- Pair in suitable habitat

Common Yellow-throat- Pair in suitable habitat

Grasshopper Sparrow- Agitated behavior

Field Sparrow- Pair in suitable habitat

Eastern Towhee- Pair in suitable habitat  
Northern Cardinal- Pair in suitable habitat  
Red-winged Blackbird- Visiting probable nest site  
Eastern Meadowlark- Visiting probable nest site  
Common Grackle- Pair in suitable habitat  
American Goldfinch- Pair in suitable habitat

**POSSIBLE** (22 species)

Wild Turkey- In appropriate habitat  
Red-shouldered Hawk- In appropriate habitat  
Red-tailed Hawk- In appropriate habitat  
Killdeer- In appropriate habitat  
Mourning Dove- Singing male  
Ruby-throated Hummingbird- In appropriate habitat  
Red-bellied Woodpecker- Singing male  
Downy Woodpecker- Singing male  
Hairy Woodpecker- Singing male  
Northern Flicker- Singing male  
Eastern Wood-Pewee- Singing male  
Red-eyed Vireo- Singing male  
Tree Swallow- In appropriate habitat  
Barn Swallow- In appropriate habitat  
Tufted Titmouse- Singing male  
Carolina Wren- Singing male  
Eastern Bluebird- In appropriate habitat  
Northern Mockingbird- Singing male  
European Starling- In appropriate habitat  
Song Sparrow- Singing male  
Scarlet Tanager- In appropriate habitat

Baltimore Oriole- Singing male

**OBSERVED/FLYOVER** (3 species plus 1 taxon)

Canada Goose

Great-Blue Heron

Bald Eagle

Swallow spp.

Sector Three Analysis

Sector three is mostly comprised of agricultural grasslands which support a unique avian community distinctly different from other areas of Detweiler Park. The presence of significant grassland species in this sector indicates high quality grassland habitat.

Eastern Meadowlarks are declining in Pennsylvania and Grasshopper Sparrows experienced population declines throughout the 20<sup>th</sup> century, making both species conservation concerns (Wilson, Brauning, Mulvihill 2012) (Birds of North America Online, ed. Vickery, Peter. D.1996).

A search of eBird records revealed that the fields were used as a wintering site for Short-eared Owls, a state endangered species, in 2011 (Lamoreaux and Gardner 2011) (pers. comm.). It is not out of the realm of possibility that other grassland-obligate state-listed species, including Northern Harrier and Dickcissel could be using sector three, or may in the future utilize the sector.

It is recommended that sector three be managed as grassland habitat through late-season harvesting and possibly prescribed burns. Harvesting of the field should be delayed to protect Eastern Meadowlarks and Grasshopper Sparrows during their nesting season. The development of sector three for anything beyond passive recreation is not advisable.

Sector: Four

Transects: Eight, Nine

**CONFIRMED**

N/A

**PROBABLE** (5 species)

White-eyed Vireo- Agitated behavior

Red-eyed Vireo- Agitated behavior

Blue-grey Gnatcatcher- Agitated behavior

Grey Catbird- Pair in suitable habitat

Red-winged Blackbird- Pair in suitable habitat

**POSSIBLE** (22 species plus 1 taxon)

Wild Turkey- Singing male

Red-bellied Woodpecker- In appropriate habitat

Downy Woodpecker- Singing male

Northern Flicker- In appropriate habitat

Blue-headed Vireo- Singing male

Blue Jay- In appropriate habitat

American Crow- In appropriate habitat

Chickadee spp.- Singing male

Carolina Wren- Singing male

Eastern Bluebird- In appropriate habitat

Wood Thrush- Singing male

Ovenbird- Singing male

Common Yellowthroat- Singing male

Hooded Warbler- Singing male

Northern Parula- Singing male

## Detweiler Breeding Bird Survey

Prairie Warbler- Singing male

Grasshopper Sparrow- Singing male

Field Sparrow- Singing male

Eastern Towhee- Singing male

Scarlet Tanager- Singing male

Northern Cardinal- Singing male

Indigo Bunting- Singing male

American Goldfinch- Singing male

### **OBSERVED/FLYOVER** (3 species)

Canada Goose

Chimney Swift

Fish Crow

### Sector Four Analysis

Sector four is dominated by a mature conifer plantation which supports an interesting array of bird species. Northern Parula and Blue-headed Vireo are two species that are somewhat dependent upon the conifers (Birds of North America Online, Moldenhauer, Ralph R. and Daniel J. Regelski 2012). These species were only found in this sector, and it is the recommendation of this report that the pine plantation not be extensively developed.

Other parts of sector four have mixed deciduous forest with areas of early successional scrub. Many of the forested areas are being taken over by Ailanthus. The groundcover across much of sector four is Japanese Stiltgrass. Mile-A-Minute Weed, an invasive vine that blankets other vegetation, is present. It is advisable to undertake control measures to reduce the impact of these species. Like sector one, it is recommended that a vegetation survey be performed and an assessment of deer impact be undertaken.

Sector: Five

Transects: Ten, Eleven, and Twelve

**CONFIRMED** (4 species)

- Eastern Phoebe- Occupied nest
- Red-eyed Vireo- Carrying nesting material
- Eastern Bluebird- Occupied nest
- American Robin- Occupied nest

**PROBABLE** (4 species)

- Blue Jay- Agitated behavior
- House Wren- Woodpecker/wren nest building
- Gray Catbird- Pair in suitable habitat
- Indigo Bunting- Agitated behavior

**POSSIBLE** (22 species plus 1 taxon)

- Wild Turkey- Singing male
- Red-bellied Woodpecker- Singing male
- Downy Woodpecker- Singing male
- Pileated Woodpecker- Singing male
- American Crow- Singing male
- Chickadee spp. - Singing male
- Tufted Titmouse- Singing male
- White-breasted Nuthatch- Singing male
- Carolina Wren- Singing male
- Wood Thrush- Singing male
- Ovenbird- Singing Male
- Worm-eating Warbler- Singing male
- Louisiana Waterthrush- Singing male

Common Yellowthroat- Singing male

Prairie Warbler- Singing male

Hooded Warbler- Singing male

Chipping Sparrow- Singing male

Field Sparrow- Singing male

Song Sparrow- Singing male

Eastern Towhee- Singing male

Scarlet Tanager- Singing male

Northern Cardinal- Singing male

American Goldfinch- Singing male

**OBSERVED/FLYOVER** (2 species)

Great Blue Heron

Turkey Vulture

Sector Five Analysis

Sector five has the most riparian habitat of any the sectors, with Clark's Creek along its southern boundary and an unnamed tributary of Clark's Creek bisecting the sector. A small artificial impoundment bordered by wetlands is also found within the sector. The riparian areas support Louisiana Waterthrush, a riparian habitat-obligate species not detected in any other sectors. In 2005 the Pennsylvania Game Commission and Pennsylvania Fish and Boat Commission included this bird as a Species of Greatest Conservation Need, due to its value as an indicator of good riparian environmental quality (Wilson, Brauning, Mulvihill 2012). Their presence at Detweiler Park is a clear sign of the park's valuable songbird habitat.

Riparian habitat has inherent value to many species. The presence of Louisiana Waterthrushes singing to hold territory along both Clark's Creek and the unnamed tributary underscores its significance at Detweiler Park. It is the recommendation of this report that all riparian buffer habitat be protected from development.

Invasive plant species such as Ailanthus, Mile-A-Minute Weed, Oriental Bittersweet, Autumn Olive, Multiflora Rose, Japanese Barberry, and Japanese Stiltgrass were found in many areas of sector five. Control of these species is recommended, especially where they are in close proximity to riparian areas.



### Data Summary Table

	All Species*	Provisional Status	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5
Confirmed Breeders	8	28	1	0	4	0	4
Probable Breeders	22	NA	4	3	17	5	4
Possible Breeders	27	1	18	16	22	23	23
Total Birds with Breeding Status	57	NA	23	19	43	28	31
Observed/ Flyover	8	NA	0	0	4	3	2
Total Species*	65	NA	23	19	47	31	33

\* In this table and in the following Discussion, the term Species includes Taxa.

### Discussion

Sector three, which includes the field surrounding the airstrip, was found to have the most potential breeding bird species with 43 species detected. The presence of species that are known to be, or historically were, in decline such as Grasshopper Sparrow and Eastern Meadowlark makes this grassland habitat highly valuable. This, combined with the records showing that the sector has been used by the endangered Short-eared Owl, make it particularly important to protect this field from extensive development. Continued monitoring for other grassland species is suggested.

Sector five had the second highest count, with 31 species of potential breeding birds detected. This high species diversity is likely due to the variety of habitat contained within sector five. The riparian habitat along Clark’s Creek and the unnamed tributary to Clark’s Creek that support Louisiana Waterthrush are exceptionally valuable areas within sector five and should not be developed.

Sector four had the third highest count with 28 species. Much of sector four is conifer plantation. The low diversity of the plantation vegetation most likely accounts for the relatively low avian diversity within this sector. However, while the diversity within the sector is low, it contributes significantly to the overall avian diversity of species in the park with species like Blue-headed Vireo and Northern Parula. Sector four was found to have extensive areas of invasive herbaceous plants such as Mile-A-Minute and Japanese Stiltgrass. Controlling these non-native species would allow for native plant regeneration, which would benefit birds by hosting an extensive array of insect life upon which many birds feed (Tallamy 2007).

Sector one had 23 species detected, which places it fourth, followed by sector two with 19 species. Both of these sectors have very limited understories, which is evidence of severe impact by deer.

A vegetation survey would be useful in determining what best management practices (BMPs) should be implemented to maintain or increase avian diversity. In light of the value of sector one as an unfragmented forest, addressing the diversity of its plant community would be a significant step. Culling the deer herd at Detweiler would likely lead to increased plant diversity, which in turn would increase avian diversity. A study of Detweiler Park's deer herd would need to be carried out first.

Allowing limited deer hunting opportunities at Detweiler Park should be explored as a way of promoting forest regeneration beneficial to many bird species while reaching out to consumptive outdoor recreationalists. This has been done successfully at King's Gap Environmental Education Center, where the majority of the park is open to firearms deer hunting, but closed for all other hunting seasons. A simple two-week deer hunting season, such as the one at Kings Gap, would effectively meet the park's management needs, and provide an additional recreational opportunity to the taxpayers of Dauphin County.

### Priorities for Future Research

The research begun by this project could be maximized by continuing to survey birds during the breeding season and by inventorying species at other times of the year. Surveys during spring and fall migration as well as during the winter will allow for identification of areas that birds use outside of the breeding season. This information will help managers prescribe habitat improvement projects and determine what areas are suitable for development.

An eBird "hotspot" could be requested for Detweiler Park. This would allow birders to contribute data for the benefit of the park and avian research in general. It would also identify Detweiler Park as a destination for birding, attracting more visitors.

Vegetation surveys to identify what food and shelter resources birds have at Detweiler Park would help target habitat improvement projects to increase diversity in those areas. Research into invasive plant distribution at Detweiler Park may also be useful in determining areas that would most benefit from habitat restoration projects.

Deer population assessment goes hand-in-hand with vegetation surveys and management.

### Conclusion

Detweiler Park has an excellent array of breeding birds that are utilizing the park's diverse ecosystems. It is the recommendation of this report that development of Detweiler Park be limited in scope to preserve the breeding avian community in

existence at the park. Birdwatching, hiking, jogging, nature photography, and other passive recreational activities that do not substantially disturb wildlife should be encouraged as much as possible.

Areas that could be developed without compromising important breeding bird habitat include the area around the Detweiler house, and the field where the swimming pool, tennis courts, and trap field were historically located.

Control of invasive species at Detweiler will help ensure the perpetuation of native plant species that provided food and shelter to breeding birds. A limited deer hunting season and/or deer exclosure would encourage native plant species.

While this survey and report are focused on birds, it is important to remember that their significance extends beyond birdwatchers and photographers who enjoy their color and song. Like the proverbial canary in a coal mine, they are indicators of the quality of the ecosystems they inhabit (Koskimies 1989). Their diversity reflects the diversity of the land on which they live and the care we take in protecting that land.

Detweiler Park and the birds which breed in its varied ecosystems are treasures that deserve to be managed for the future. It is the recommendation of this report that the Dauphin County Department of Parks and Recreation continue to manage Detweiler Park in accordance with Meade D. Detweiler's vision of "a place where habitats are preserved and managed in perpetuity for wildlife based on sound ecological principles that demonstrate strong land ethic." If this vision is extended into the future, the breeding birds of Detweiler Park will benefit, enriching all wildlife as well as human lives now and in the future.

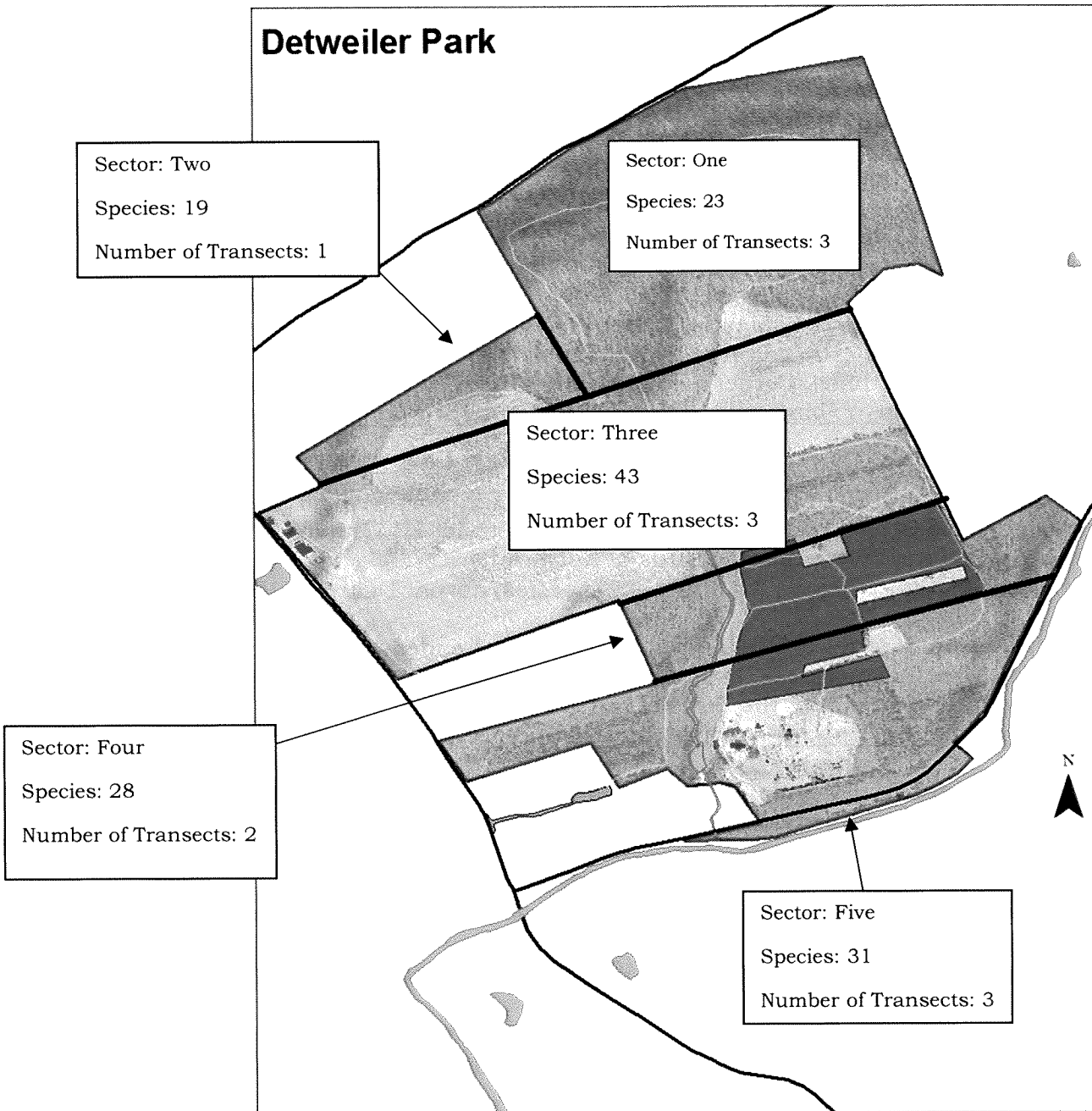
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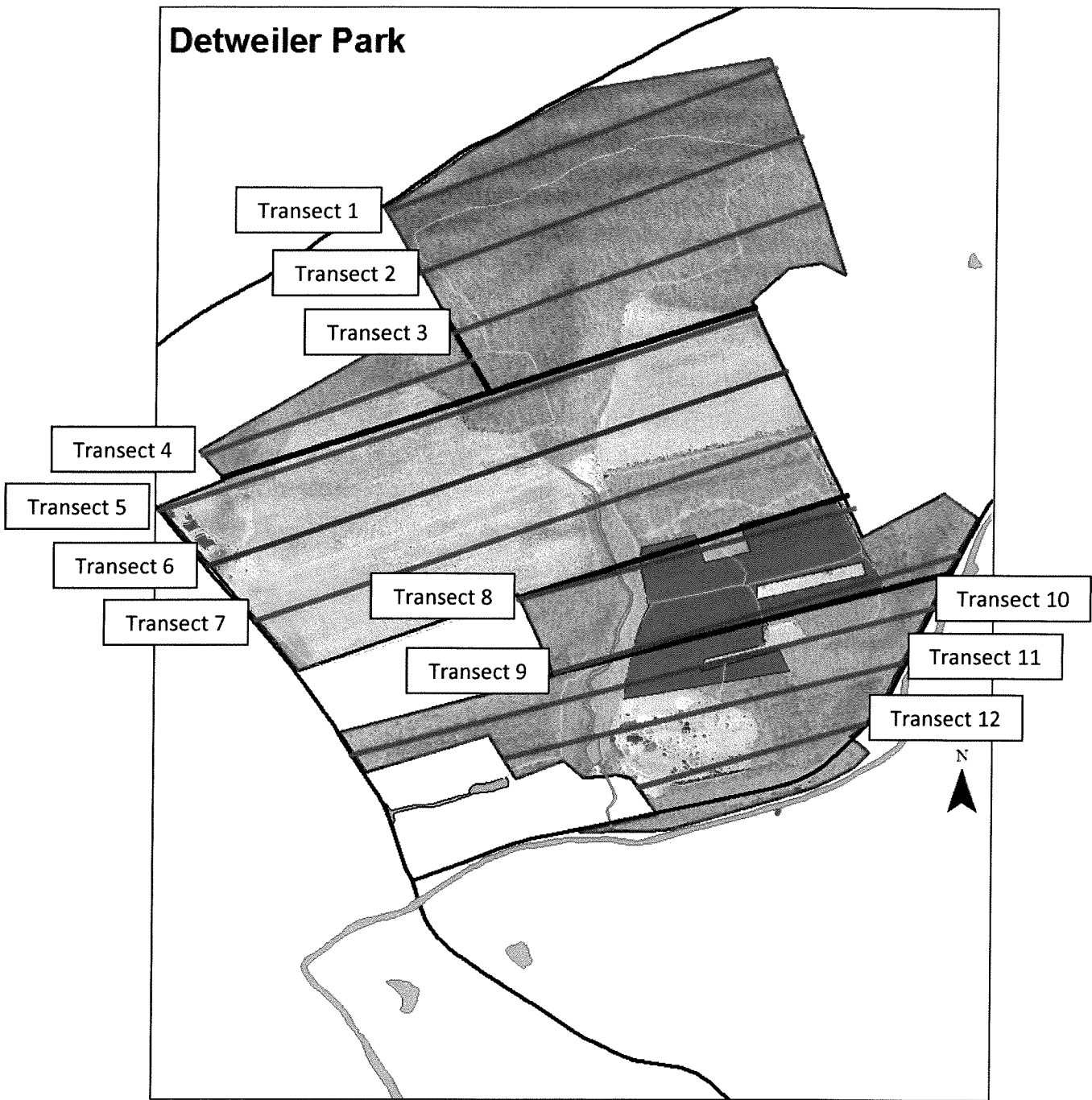
Appendix I

**Detweiler Park**



Map of Detweiler Breeding Bird Survey Sectors

Appendix II



Map with Approximate Transect Lines in Red

## Appendix III

### **Breeding codes used in this survey and their interpretations as defined by the Cornell Lab of Ornithology**

<http://help.ebird.org/customer/portal/articles/1006850-breeding-codes-behavior-codes>

**NY Nest with Young (Confirmed)** -- Nest with young seen or heard.

**NE Nest with Eggs (Confirmed)** -- Nest with eggs.

**ON Occupied Nest (Confirmed)** -- Occupied nest presumed by parent entering and remaining, exchanging incubation duties, etc.

**FL Recently Fledged young (Confirmed)** -- Recently fledged or downy young observed while still dependent upon adults.

**FY Feeding Young (Confirmed)** -- Adult feeding young that have left the nest, but are not yet flying and independent (should not be used with raptors, terns, and other species that may move many miles from the nest site; often supersedes FL).

**FS Carrying Fecal Sac (Confirmed)** -- Adult carrying fecal sac.

**CF Carrying Food (Confirmed)** -- Adult carrying food for young (should not be used for corvids, raptors, terns, and certain other species that regularly carry food for courtship or other purposes).

**UN Used Nest (enter 0 if no birds seen) (Confirmed)** -- Nest is present, but not active. Use only if you are certain of the species that built the nest.

**DD Distraction Display (Confirmed)** -- Distraction display, including feigning injury.

**PE Brood Patch and Physiological Evidence (Probable)** -- Physiological evidence of nesting, usually a brood patch. This will be used only very rarely.

**NB Nest Building (Confirmed/Probable)** -- Nest building at apparent nest site (should not be used for certain wrens, and other species that build dummy nests; see code "B" below for these species).

**CN Carrying Nesting Material (Confirmed/Probable)** -- Adult carrying nesting material; nest site not seen.

**B Wren/Woodpecker Nest Building (Probable)** -- Some species, including certain wrens (e.g., Marsh Wren), woodpeckers, and certain other cavity nesters (e.g., barbets) may build dummy nests and thus nest building activity cannot be considered confirmation. Use this category in those cases.

**T Territory held for 7+ days (Probable)** -- Territorial behavior or singing male present at the same location 7+ days apart.

**C Courtship, Display or Copulation (Probable)** -- Courtship or copulation observed, including displays and courtship feeding.

**N Visiting probable Nest site (Probable)** -- Visiting repeatedly probable nest site (primarily hole nesters).

**A Agitated behavior (Probable)** -- Agitated behavior or anxiety calls from an adult. This excludes responses elicited by "pishing", playing recordings, or mobbing behavior that species engage in year-round (for instance, mobbing an owl).

**P Pair in suitable habitat (Probable)** -- Pair observed in suitable breeding habitat within breeding season.

**M Multiple (7+) singing males (Probable)** -- At least 7 singing males present in suitable nesting habitat during breeding season.

**S7 Singing Male Present 7+ Days (Probable)** -- Use only if you have observed a singing male at the exact spot (same tree or shrub) one week or more earlier in the season. Do not use if you have observed a singing male a week earlier *elsewhere* on the same transect covered by your checklists.

**S Singing male (Possible)** -- Singing male present in suitable nesting habitat during its breeding season.

**H In appropriate habitat (Possible)** -- Adult in suitable nesting habitat during its breeding season.



**F Flyover (Observed) -- Flying over only** -- This is not necessarily a breeding code, but can be a useful behavioral distinction.

## Acknowledgments

The Detweiler Breeding Bird Survey would like to thank the following individuals who helped make this survey possible.

Dauphin County Commissioners: Jeff Haste, Mike Pries, and George P. Hartwick, III

Ann DePaulis

Kevin DePaulis

Carl Dickson

Ian Gardner

Gary LaBelle

Chris Rebert

Will Webster

Kim Vanfleet

Thank you for your commitment to helping avian research and conservation at Detweiler Park.



August 1, 2017

Carl Dickson

Dauphin County Dept. of Parks and Recreation  
100 Fort Hunter Road  
Harrisburg, PA, 17110

Chris Rebert

Dauphin County Dept. of Parks and Recreation, Wildwood Park  
100 Wildwood Way  
Harrisburg, PA, 17110

Mr. Dickson and Mr. Rebert:

It is my pleasure to announce that the Detweiler Park Breeding Bird Survey (DBBS) is now complete. This endeavor systematically cataloged the breeding bird species at Detweiler Park, and identified areas of the park with exceptional avian diversity. The results of the DBBS are compiled in report form, and are ready to be released. I would like to have a meeting in order to formally present the report, and to discuss its findings. If this is a possibility, please contact me at [elidepaulis1@gmail.com](mailto:elidepaulis1@gmail.com). I look forward to hearing from both of you, and discussing the breeding birds of Detweiler Park.

Sincerely,



Eli DePaulis

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**Detweiler Park Stream Evaluation  
Dauphin County Parks and Recreation  
Middle Paxton Township, Dauphin County  
Conducted April 25 and 28, 2020  
By Mark S. Embeck**

**INTRODUCTION**

Detweiler Park occupies approximately 411 acres in the Clark Creek Basin. The basin is protected under 25 Pa. Code § 93.90 as a High-Quality Cold-Water Fishery and for Migratory Fishes. Two unnamed tributaries to Clark Creek flow through the Detweiler Park – one headwaters off the park property and travels a short distance across the northwest corner of the park before exiting and crossing State Route 225, while the other headwaters on the park property, travels south leaving the park for a short distance before reentering the park just upstream of its confluence with Clark Creek. Each of these tributaries were assessed during this study.

The streams are part of the Clark-Paxton watershed (07C) as delineated in the Pennsylvania state water plan. The western stream is designated tributary 10960 to Clark Creek, and the eastern tributary is 10963. Under the USGS Hydrologic Unit Classification (HUC), the western tributary is identified as reach code 02050305002304 and the center tributary is reach code 02050305002332. They are located in the Lower Susquehanna-Swatara subdivision of the Mid-Atlantic Region.

Both streams are represented on the 2019 7.5-minute Halifax, PA topographic quadrangle map as intermittent channels. Neither are intermittent. In addition, the eastern tributary is not a single channel. It has three upstream branches which further divide into smaller sub-tributaries, including some with interrupted flow (i.e., short reaches that can be heard flowing underground and then daylight again upstream) that terminate at spring seeps.

Geology plays a role in defining stream character in the park. The two formations underlying the park are the Pocono - light-gray to buff or light-olive-gray, medium-grained, cross bedded sandstone and minor siltstone, commonly conglomerate; and the Mauch Chunk - grayish-red shale, siltstone, sandstone, and some conglomerate at the base. The Mauch Chunk is mapped in the southern portion of the park. The Pocono occupies the steeper and higher forested areas. Outcrops of the Mauch Chunk red shale can be seen on the footpath of the lower trails and in the streambed. Outcrops and float material originating from the Pocono can be seen in the upper tributary and along the upper trails. Additionally, rocks from the upper area are transported via bedload to lower stream reaches during high discharge events.

Likewise, the soils play a role in stream sediment composition. Soils in the upper part of the watershed are primarily gravelly, stony or sandy loams, while silt and shale silt loams are found in the lower parts (Figure 2 and Table 4). Sediment particle size can affect embeddedness, water and oxygen transport through sediment and hyporheic zone, and available niche space (Gordon et al. 1992). Fine particles in the stream sediments at Site 1 are notably coarser than those at Sites 2 and 3.

A portion of Clark Creek also flows through the southern end of Detweiler Park. Previous macroinvertebrate sampling of Clark Creek is documented in the Clark Creek Conservation Plan (Dauphin County Conservation District 2012).

The current survey was undertaken to describe existing stream resources at the park in hope that the information will be used to further the goal of conserving an “area where habitats are preserved and managed in perpetuity for wildlife based on sound ecological principles that demonstrate a strong land ethic...”

## **METHODS AND MATERIALS**

Three sites representing the diversity of existing habitats were chosen for sampling. Four kick-screen (3 m<sup>2</sup>, 600 µm mesh) samples were collected at each site. For each kickscreen an area of approximately 3 m by 3 m was vigorously disturbed allowing organisms to flow downstream into the net. The identity and relative abundance of various taxa were recorded in the field. Representative organisms were collected from the net and placed in 70% ethyl alcohol for verification and further identification. An equal amount of sampling effort was expended at each station.

Site longitude and latitude were recorded with a Garmin Oregon 450t. Sampling site locations are located on Figure 1. Sample sites were photographed (Photos 1-3). Temperature, and pH were measured in the field using a handheld glass thermometer (+/- 1°C) and pH paper (+/- 0.25). Gross estimates of sediment particle sizes in sampled areas were recorded and habitats were scored using a modification of the habitat evaluation methods outlined in USEPA’s Rapid Bioassessment Protocols (Barbour et al. 1999).

Collected organisms were identified to the lowest practicable taxonomic level using a Bausch and Lomb StereoZoom® 4 with 7 - 120X magnifications. The following principal taxonomic references were used: Peckarsky *et al.* (1990), Wiggins (1996), Thorp and Covich (1991) and Steward and Stark (1993).

## RESULTS

Results of the macroinvertebrate sampling are given in Tables 1 (Sites 1 and 2) and 2 (Site 3). The pollution tolerance value (PTV) and functional feeding group (FFG) for collected taxa are also included in tables. PTVs range from 0 to 10 with lower values indicative of increased sensitivity to pollution. Habitat assessments are attached for each of the stations. The results for each station are summarized below:

### **Site 1- Upstream middle tributary to eastern UNT Clark Creek, N 40.40004, W 76.93835.**

The watershed above this point is 96% forested with mixed deciduous trees; the collection of unmolested beech trees in this area is notable. The stream has a step-pool (Photo 4) rather than riffle-run configuration differentiating it from the stream section located downstream of the connecting trail between the Airstrip Loop and David's Field Loop. The stream is shaded and the stream has a good supply of woody debris. Substrate composition in the sampled area are estimated as follows: 15% boulder, 35% cobble, 35%, gravel, and 15% finer sands, silt and clay. At the time of sampling air temperature was 20 °C and water temperature was 14 °C. pH was 6.5. Stream width averaged 4 ft (1.2 m) and stream depth was 0-5 in (0 - 12 cm) in the sampled area. Habitat scored 198 out of a possible 240.

Twenty-one macroinvertebrate taxa were collected. The station had a modified EPT index of 16. The modified EPT index represents the number of taxa in the mayfly, stonefly and caddisfly orders (Ephemeroptera, Plecoptera and Trichoptera, respectively) having a PTV of 4 or lower. Taxa comprising each of the FFGs were collected. The results indicate a diverse and healthy freestone macroinvertebrate community comprised of pollution sensitive organisms.

### **Site 2 (Downstream Eastern UNT Clark Creek, N 40.39352, W 76.93777).**

The watershed above this location is 75% forested, the remainder consists of open field, trail and a state highway. The stream is shaded with a forested riparian zone of deciduous trees. The channel represents a meandering riffle run habitat. The stream is overwide, entrenched and likely disconnected from the natural floodplain throughout this lower section. This condition is likely the result of increased runoff caused by historic agricultural and silvicultural practices in the catchment. Without a floodplain to dissipate energy during high flow events, the energy erodes bank and bed material. As can be seen in Photo 5, the erosion is taking place below the root zone, and will result in continued channel widening and shallower water depth during baseflow conditions. Interestingly, the channel just upstream in the wetland is narrower and has better bank stability. The

transition is sharp; a knickpoint and hydraulic jump are present (Photo 6). Substrate composition in the sampled area are estimated as follows: 15% boulder, 45% cobble, 30%, gravel, and 10% finer sands, silt and clay. At the time of sampling air temperature was 17 °C and water temperature was 10 °C. pH was 6.0. Stream width varied from 3 -12 ft (0.9 – 3.6 m) wide and stream depth was 0-5 in (0 – 12 cm) in the sampled area. Habitat scored 187 out of a possible 240.

Twenty-two macroinvertebrate taxa were collected. The station had a modified EPT index of 10, indicative of good water quality. Taxa comprising each of the FFGs were collected. One larval two-lined salamander (*Eurycea bislineata*) was incidentally collected and identified (Hulse et al. 2001). Although slightly less diverse than Site 1, the results indicate a diverse and healthy freestone macroinvertebrate community.

### **Site 3 (Western UNT Clark Creek, N 40.3968, W 76.94562).**

The watershed above this location is 88% forested; however, the sampled reach is located in an open field setting with a poor to nonexistent riparian buffer. There is no shade. Habitat quality is marginal. Well defined riffle areas were difficult to find. Substrate composition in the sampled area are estimated as follows: 0% boulder, 30% cobble, 50%, gravel, and 20% finer sands, silt and clay. At the time of sampling air temperature was 14 °C and water temperature was 10 °C. pH was 6.25. Stream width varied from 2.5 ft (0.76 m) wide and stream depth was 0-4 in (0-10 cm) in the sampled area. Habitat scored 142 out of a possible 240.

Seventeen macroinvertebrate taxa were collected. The station had a modified EPT index of 8. Taxa comprising each of the FFGs were collected. The community is dominated by pollution sensitive organisms, indicating good water quality; however, densities are low, most likely due to the marginal habitat and poor riparian zone.

## **DISCUSSION AND RECOMMENDATIONS**

Based on the number of sensitive macroinvertebrate taxa collected, each of the stream points sampled reflect very good water quality. The headwater community and habitat at Site 1 are impressive and undoubtedly the most fragile. This should be considered when evaluating any development in this area of the park, including the building new trails and/or the maintenance of existing trails. For instance, the multi-use bike trail proposed by one contributor to the Detweiler Master Plan Site would be egregiously devastating. The community at Site 2, while not up measuring to that at Site 1, is diverse and equally worth protection. Measures to stabilize areas of eroding banks or otherwise improve the channel morphology of should be considered. In addition, consideration of removing

and replacement of stream culvert pipes with bridges that adequately span both the channel and the floodplain. The water quality at Site 3 is undoubtedly good, but the habitat is in need of improvement for the aquatic community to reach its potential. However, it's also important to recognize that the upstream catchment area of this stream is outside the area and control of the park.

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**Qualitative Macroinvertebrate Data**  
**Unnamed Tributary 10963 to Clark Creek**  
**April 25, 2020**

TAXA	PTV	FFG	Upstream Site 1				Downstream Site 2			
			1	2	3	4	1	2	3	4
OLIGOCHAETA (Aquatic Worms)	10	CG					R	R	R	R
EPHEMEROPTERA (Mayflies)										
Baetidae										
<i>Baetis</i>	6	CG					P	P	P	
Ameletidae										
<i>Ameletus</i>	2	CG	R	P	P	P				
Ephemerellidae										
<i>Ephemerella</i>	1	CG	C	C	C	C	A	A	C	A
Heptageniidae										
<i>Epeorus</i>	0	SC	C <sup>F</sup>				C	C	P	P
<i>Stenonema (Maccaffertium)</i>	3	SC	C <sub>F</sub>	C	C	C				
Leptophlebiidae										
<i>Paraleptophlebia</i>	1	CG	P	P	P	C			R	R
ODONATA (Dragonflies)										
Cordulegastidae										
<i>Cordulegaster</i>	3	PR								
Gomphidae										
<i>Lanthus</i>	5	PR	R	R		R				
<i>Stylogomphus</i>	4	PR								R
PLECOPTERA (Stoneflies)										
Leuctridae										
<i>Leuctra</i>	0	SH				R				
Nemouridae										
<i>Amphinemoura</i>	3	SH	P	P	P	P	R	R	R	
Peltoperlidae										
<i>Tallaperla</i>	0	SH		P	P	P				
Peridae										
<i>Eccopectura</i>	2	PR				R	R	R	R	R
Perlodidae										
<i>Isoperla</i>	2	PR	P	P	P	C	P	C	P	P
Chloroperlidae										
<i>Sweltsa</i>	0	PR	R	C	P	P				
TRICOPTERA (Caddisflies)										
Hydropsychidae										
<i>Diplectrona</i>	0	FC	P	C	C	C	P <sub>F</sub>	P <sub>F</sub>	P <sub>F</sub>	P <sub>F</sub>
<i>Hydropsyche</i>	5	FC					P <sub>F</sub>	P <sub>F</sub>	P <sub>F</sub>	P <sub>F</sub>
Limnephilidae										
<i>Hydatophylax</i>	2	SH	R							
<i>Pycnopsyche</i>	4	SH	R				R			
Philopotamidae										
<i>Chimarra</i>	4	FC							R <sub>F</sub>	
<i>Dolophilodes</i>	0	FC	P	P	P	P		R	R <sub>F</sub>	R
Rhyacophilidae										
<i>Rhyacophila</i>	1	PR		R				R	P	P
COLEOPTERA (Beetles)										
Elmidae	5	CG		R						

Psephenidae										
<i>Ectopria</i>	5	SC						R	R	
<i>Psephenus</i>	4	SC							R	
MEGALOPTERA (Fishflies)										
Corydalidae										
<i>Nigronia</i>	2	PR	R					R		
DIPTERA (True Flies)										
Ceratopogonidae										
<i>Probezzia</i>	6	PR				R				
Chironomidae	6	CG					R			
Simuliidae										
<i>Prosimulium</i>	2	FC						R		
Tipulidae										
<i>Dicranota</i>	3	PR					R			
<i>Hexatoma</i>	2	PR		R	R	R				
<i>Tipula</i>	4	SH						R		
Total Screen Taxa			14	14	11	15	11	14	15	13
Total Screen Modified EPT Taxa			12	10	10	11	7	8	9	8
Total Station Taxa			21			22				
Total Station Modified EPT Taxa			16			10				

R = Rare (<3), P = Present (3-9), C = Common (10-24), A = Abundant (25-99), R<sub>F</sub> = Rare at Family Level, P = Present at Family Level, C<sub>F</sub> = Common at Family Level, A<sub>F</sub> = Abundant at Family Level. The FFG abbreviations stand for collector gatherer (CG), filter-collector (FG), predator (PR), scraper (SC), and shredder (SH).

**Qualitative Macroinvertebrate Data**  
**Unnamed Tributary 10960 To Clark Creek**  
**April 28, 2020**

TAXA	PTV	FFG	SITE 3			
			1	2	3	4
EPHEMEROPTERA (Mayflies)						
Ephemerellidae						
<i>Ephemerella</i>	1	CG	C	P	P	P
Heptageniidae						
<i>Stenonema (Maccaffertium)</i>	3	SC	P		R	
Leptophlebiidae						
<i>Paraleptophlebia</i>	1	CG	P			P
ODONATA (Dragonflies)						
Aeshnidae						
<i>Boyeria</i>	2	PR	R			
Cordulegastidae						
<i>Cordulegaster</i>	3	PR				R
PLECOPTERA (Stoneflies)						
Nemouridae						
<i>Amphinemoura</i>	3	SH	R	R	R	
Peridae						
<i>Eccoptura</i>	2	PR		R	P	
Perlodidae						
<i>Isoperla</i>	2	PR				R
TRICOPTERA (Caddisflies)						
Hydropsychidae						
<i>Diplectrona</i>	0	FC	C	P	R	
Rhyacophilidae						
<i>Rhyacophila</i>	1	PR				R
COLEOPTERA (Beetles)						
Elmidae						
<i>Stenelmis</i>	5	CG	R			
Psephenidae						
<i>Ectopria</i>	5	SC				R
<i>Psephenus</i>	4	SC		R		
DIPTERA (True Flies)						
Tipulidae						
<i>Limnophila</i>	3	PR	R	R		
<i>Molophilus</i>	4	SH				R
<i>Tipula</i>	4	SH				R
DECOPODA (Crayfish)						
Cambaridae						
<i>Cambarus</i>	6	CG			R	R
Total Screen Taxa			8	6	6	9
Total Screen Modified EPT Taxa			5	4	5	4
Total Station Taxa			17			
Total Station Modified EPT Taxa			8			

R = Rare (<3), P = Present (3-9), C = Common (10-24), A = Abundant (25-99), R<sub>F</sub> = Rare at Family Level, P<sub>F</sub> = Present at Family Level, C<sub>F</sub> = Common at Family Level, A<sub>F</sub> = Abundant at Family Level. The FFG abbreviations stand for collector gatherer (CG), filter-collector (FG), predator (PR), scraper (SC), and shredder (SH)

## HABITAT ASSESSMENT

DATE April 25, 2020 TIME 1200  
 TOWNSHIP Middle Paxton Township COUNTY Dauphin  
 SITE LOCATION Site 1 – Detweiler Park –UNT Clark Creek Upstream - HUC 02050305002338  
 FORM COMPLETED BY M.S. Embeck **RIFFLE/RUN PREVALENCE**

Habitat Parameter	Category			
	Optimal	Suboptimal	Marginal	Poor
1. Instream Cover (fish)	Greater than 50% mix of boulder, cobble, submerged logs, undercut banks, or other stable habitat.	30-50% mix of boulder, cobble, or other stable habitat; adequate habitat.	10-30% mix of boulder, cobble, or other stable habitat; habitat availability less than desirable.	Less than 10% mix of boulder, cobble, or other stable habitat; lack of habitat is obvious.
<b>SCORE 17</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
2. Epifaunal Substrate	Well-developed riffle and run; riffle is as wide as stream and length extends two times the width of stream; abundance of cobble.	Riffle is as wide as stream but length is less than two times width; abundance of cobble; boulders and gravel common.	Run area may be lacking; riffle not as wide as stream and its length is less than 2 times the stream width; gravel or large boulders and bedrock prevalent; some cobble present.	Riffles or run virtually non-existent; large boulders and bedrock prevalent; cobble lacking.
<b>SCORE 16</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
3. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
<b>SCORE 14</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
4. Velocity/Depth Regimes	All four velocity/depth regimes present (slow-deep, slow shallow, fast-deep, fast shallow)	Only 3 of the 4 regimes present if fast-shallow is missing, score lower than if missing other regimes.)	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
<b>SCORE 10</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
5. Channel Alteration	No channelization or dredging present.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e. dredging (greater than 20 yr.) may be present, but recent channelization is not present.	New embankments present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement over 80% of the stream reach channelized and disrupted.
<b>SCORE 20</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
6. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar information, mostly from coarse gravel; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel coarse sand on old and new bars; 30-50% of the bottom affected; sediment deposits at obstruction, construction and bends, moderate depositions of pools prevalent.	Heavy deposits of fine material increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
<b>SCORE 12</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>

Habitat Parameter	Category			
	Optimal	Suboptimal	Marginal	Poor
7. Frequency of Riffles	Occurrence of riffles relatively frequent; distance between riffles divided by the width of the stream equals 5 to 7; variety of habitat.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream equals 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is >25.
<b>SCORE 18</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
8. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
<b>SCORE 15</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
9. Condition of Banks	Banks stable; no evidence of erosion of bank failure.	Moderately stable; infrequent, small areas of erosion mostly healed over.	Moderately unstable; up to 60% of banks in reach have areas of erosion.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; on side slopes, 60-100% of bank has erosional scars.
<b>SCORE 18</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
10. Bank Vegetative Protection	More than 90% of the streambank surfaces covered by vegetation.	70-90% of the streambank surfaces covered by vegetation.	50-70% of the streambank surfaces covered by vegetation.	Less than 50% of the streambank surfaces covered by vegetation.
<b>SCORE 18</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
11. Grazing or Other Disruptive Pressure	Vegetative disruption through grazing or mowing is minimal or not evident; almost all plants allowed to grow naturally.	Disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	Disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Disruption of streambank vegetation is very high; vegetation has been removed to 2 inches or less in average stubble height.
<b>SCORE 20</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
12. Riparian Vegetative Zone Width	Width of riparian zone >18 meters; human activities (i.e. parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.
<b>SCORE 20</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>

Totals - (Side 2): 89

(Side 1): 109

**STATION SCORE:** 198

## HABITAT ASSESSMENT

DATE April 25, 2020 TIME 0930

TOWNSHIP Middle Paxton COUNTY Dauphin

SITE LOCATION Site 2 - Detweiler Park – Eastern UNT Clark Creek Downstream - HUC 02050305002338

FORM COMPLETED BY M.S. Embeck **RIFFLE/RUN PREVALENCE**

Habitat Parameter	Category			
	Optimal	Suboptimal	Marginal	Poor
1. Instream Cover (fish)	Greater than 50% mix of boulder, cobble, submerged logs, undercut banks, or other stable habitat.	30-50% mix of boulder, cobble, or other stable habitat; adequate habitat.	10-30% mix of boulder, cobble, or other stable habitat; habitat availability less than desirable.	Less than 10% mix of boulder, cobble, or other stable habitat; lack of habitat is obvious.
<b>SCORE 15</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
2. Epifaunal Substrate	Well-developed riffle and run; riffle is as wide as stream and length extends two times the width of stream; abundance of cobble.	Riffle is as wide as stream but length is less than two times width; abundance of cobble; boulders and gravel common.	Run area may be lacking; riffle not as wide as stream and its length is less than 2 times the stream width; gravel or large boulders and bedrock prevalent; some cobble present.	Riffles or run virtually non-existent; large boulders and bedrock prevalent; cobble lacking.
<b>SCORE 15</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
3. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
<b>SCORE 17</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
4. Velocity/Depth Regimes	All four velocity/depth regimes present (slow-deep, slow shallow, fast-deep, fast shallow)	Only 3 of the 4 regimes present if fast-shallow is missing, score lower than if missing other regimes.)	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
<b>SCORE 10</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
5. Channel Alteration	No channelization or dredging present.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e. dredging (greater than 20 yr.) may be present, but recent channelization is not present.	New embankments present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement over 80% of the stream reach channelized and disrupted.
<b>SCORE 20</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
6. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar information, mostly from coarse gravel; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel coarse sand on old and new bars; 30-50% of the bottom affected; sediment deposits at obstruction, construction and bends, moderate depositions of pools prevalent.	Heavy deposits of fine material increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
<b>SCORE 14</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>

Habitat Parameter	Category																			
	Optimal					Suboptimal					Marginal					Poor				
7. Frequency of Riffles	Occurrence of riffles relatively frequent; distance between riffles divided by the width of the stream equals 5 to 7; variety of habitat.					Occurrence of riffles infrequent; distance between riffles divided by the width of the stream equals 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally, all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is >25.				
<b>SCORE 18</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
8. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.					Water fills >75% of the available channel; or <25% of channel substrate is exposed.					Water fills 25-75% of the available channel and/or riffle substrates are mostly exposed.					Very little water in channel and mostly present as standing pools.				
<b>SCORE 16</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
9. Condition of Banks	Banks stable; no evidence of erosion of bank failure.					Moderately stable; infrequent, small areas of erosion mostly healed over.					Moderately unstable; up to 60% of banks in reach have areas of erosion.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; on side slopes, 60-100% of bank has erosional scars.				
<b>SCORE 15</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
10. Bank Vegetative Protection	More than 90% of the streambank surfaces covered by vegetation.					70-90% of the streambank surfaces covered by vegetation.					50-70% of the streambank surfaces covered by vegetation.					Less than 50% of the streambank surfaces covered by vegetation.				
<b>SCORE 12</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
11. Grazing or Other Disruptive Pressure	Vegetative disruption through grazing or mowing is minimal or not evident; almost all plants allowed to grow naturally.					Disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					Disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Disruption of streambank vegetation is very high; vegetation has been removed to 2 inches or less in average stubble height.				
<b>SCORE 20</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
12. Riparian Vegetative Zone Width	Width of riparian zone >18 meters; human activities (i.e. parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.					Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.				
<b>SCORE 15</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Totals - (Side 2): 96

(Side 1): 91

**STATION SCORE:** 187

### HABITAT ASSESSMENT

DATE April 28, 2007 TIME 0900  
 TOWNSHIP Middle Paxton COUNTY Dauphin  
 SITE LOCATION Site 3 – Detweiler Park – Western UNT Clark Creek Behind Airplane Hanger – HUC 02050305002304  
 FORM COMPLETED BY M.S. Embeck **RIFFLE/RUN PREVALENCE**

Habitat Parameter	Category			
	Optimal	Suboptimal	Marginal	Poor
1. Instream Cover (fish)	Greater than 50% mix of boulder, cobble, submerged logs, undercut banks, or other stable habitat.	30-50% mix of boulder, cobble, or other stable habitat; adequate habitat.	10-30% mix of boulder, cobble, or other stable habitat; habitat availability less than desirable.	Less than 10% mix of boulder, cobble, or other stable habitat; lack of habitat is obvious.
<b>SCORE 9</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
2. Epifaunal Substrate	Well-developed riffle and run; riffle is as wide as stream and length extends two times the width of stream; abundance of cobble.	Riffle is as wide as stream but length is less than two times width; abundance of cobble; boulders and gravel common.	Run area may be lacking; riffle not as wide as stream and its length is less than 2 times the stream width; gravel or large boulders and bedrock prevalent; some cobble present.	Riffles or run virtually non-existent; large boulders and bedrock prevalent; cobble lacking.
<b>SCORE 8</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
3. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
<b>SCORE 11</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
4. Velocity/Depth Regimes	All four velocity/depth regimes present (slow-deep, slow shallow, fast-deep, fast shallow)	Only 3 of the 4 regimes present if fast-shallow is missing, score lower than if missing other regimes.)	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
<b>SCORE 10</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
5. Channel Alteration	No channelization or dredging present.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e. dredging (greater than 20 yr.) may be present, but recent channelization is not present.	New embankments present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement over 80% of the stream reach channelized and disrupted.
<b>SCORE 13</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>
6. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar information, mostly from coarse gravel; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel coarse sand on old and new bars; 30-50% of the bottom affected; sediment deposits at obstruction, construction and bends, moderate depositions of pools prevalent.	Heavy deposits of fine material increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
<b>SCORE 13</b>	<b>20 19 18 17 16</b>	<b>15 14 13 12 11</b>	<b>10 9 8 7 6</b>	<b>5 4 3 2 1</b>



Habitat Parameter	Category																			
	Optimal					Suboptimal					Marginal					Poor				
7. Frequency of Riffles	Occurrence of riffles relatively frequent; distance between riffles divided by the width of the stream equals 5 to 7; variety of habitat.					Occurrence of riffles infrequent; distance between riffles divided by the width of the stream equals 7 to 15.					Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.					Generally, all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is >25.				
<b>SCORE 15</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
8. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.					Water fills >75% of the available channel; or <25% of channel substrate is exposed.					Water fills 25-75% of the available channel and/or riffle substrates are mostly exposed.					Very little water in channel and mostly present as standing pools.				
<b>SCORE 18</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
9. Condition of Banks	Banks stable; no evidence of erosion of bank failure.					Moderately stable; infrequent, small areas of erosion mostly healed over.					Moderately unstable; up to 60% of banks in reach have areas of erosion.					Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; on side slopes, 60-100% of bank has erosional scars.				
<b>SCORE 15</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
10. Bank Vegetative Protection	More than 90% of the streambank surfaces covered by vegetation.					70-90% of the streambank surfaces covered by vegetation.					50-70% of the streambank surfaces covered by vegetation.					Less than 50% of the streambank surfaces covered by vegetation.				
<b>SCORE 18</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
11. Grazing or Other Disruptive Pressure	Vegetative disruption through grazing or mowing is minimal or not evident; almost all plants allowed to grow naturally.					Disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.					Disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.					Disruption of streambank vegetation is very high; vegetation has been removed to 2 inches or less in average stubble height.				
<b>SCORE 9</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
12. Riparian Vegetative Zone Width	Width of riparian zone >18 meters; human activities (i.e. parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.					Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.					Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.					Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.				
<b>SCORE 3</b>	<b>20</b>	<b>19</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Totals - (Side 2): 64

(Side 1): 78

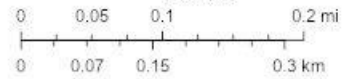
**STATION SCORE:** 142

# The National Map Advanced Viewer



5/3/2020, 5:09:01 PM

1:9,028



Waterbody - Large Scale	SwampMarsh	Canal Ditch
Estuary	Flowline - Large Scale	Coastline
Ice Mass	Perennial	Connector
LakePond	Intermittent	Pipeline
Playa	Ephemeral	Underground Conduit
Reservoir	Artificial Path	

USGS The National Map: Orthoimagery and US Topo. Data refreshed September, 2019. USGS TNM - National Hydrography Dataset. Data Refreshed April, 2020.

USGS The National Map: Orthoimagery | Garrity, C.P., Solter, D.R. | USGS National Map 3D Elevation Program (3DEP) | USGS TNM - 3D Elevation Program (3DEP). Data Refreshed Weekly. | USGS



**Photo 1 - Site 1**



**Photo 2 - Site 2**





**Photo 3 - Sample Site 3**



**Photo 4 - Typical Step-Pool Configuration**





**Photo 5 - Entrenchment and Bank Erosion**

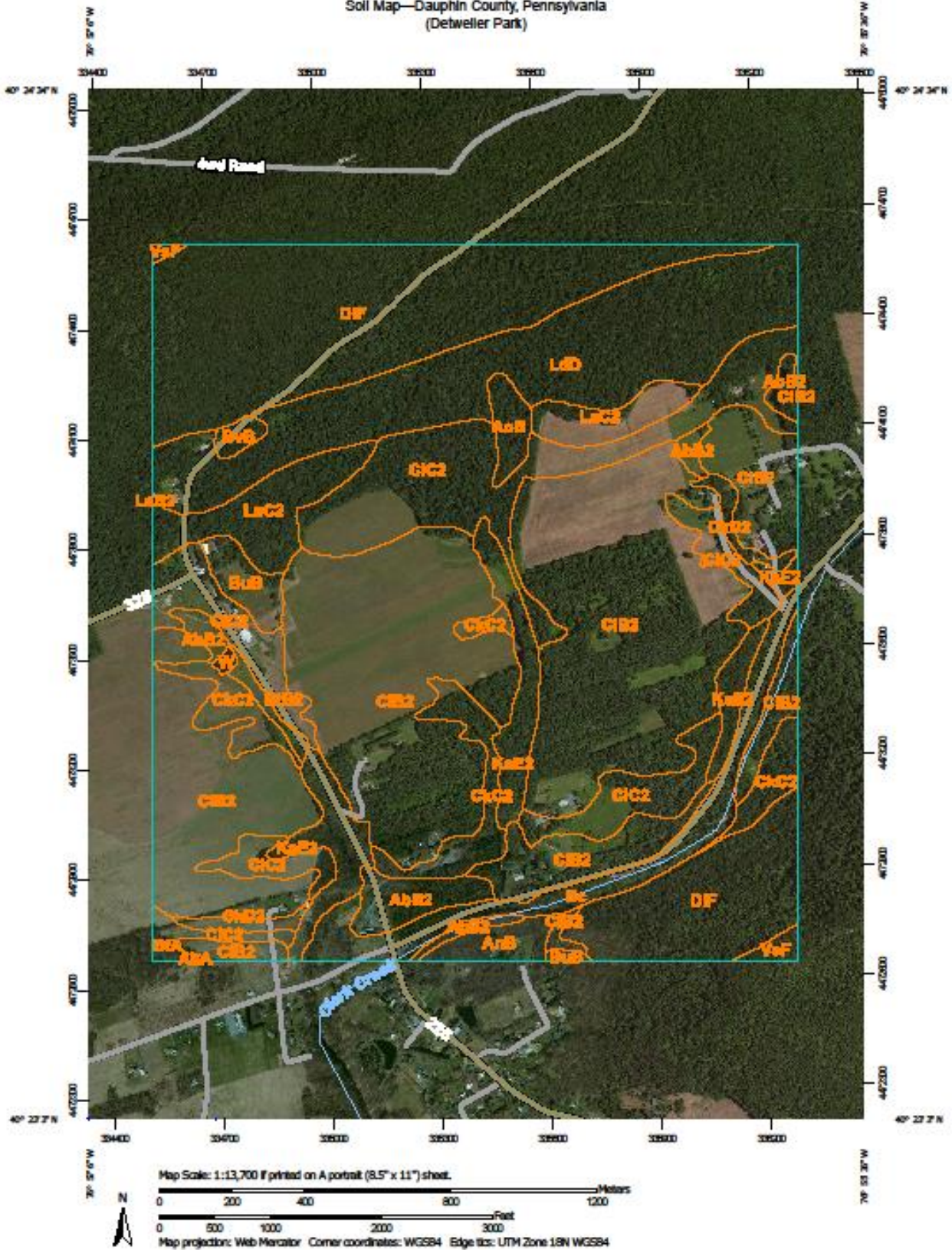


**Photo 6 – Knickpoint and Hydraulic Jump**





Soil Map—Dauphin County, Pennsylvania  
(Detweiler Park)



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

4/22/2020  
Page 1 of 4

AbA	Albrights silt loam, 0 to 3 percent slopes	0.3	0.0%
AbB2	Albrights silt loam, 3 to 10 percent slopes, moderately eroded	19.2	2.2%
AnB	Andover gravelly loam, 3 to 8 percent slopes	7.6	0.9%
AoB	Andover very stony loam, 0 to 8 percent slopes	6.0	0.7%
Bc	Basher silt loam	30.8	3.6%
BtA	Brinkerton and Armagh silt loams, 0 to 3 percent slopes	0.9	0.1%
BtB2	Brinkerton and Armagh silt loams, 3 to 8 percent slopes, moderately eroded	2.8	0.3%
BuB	Buchanan gravelly loam, 3 to 8 percent slopes	8.6	1.0%
BvB	Buchanan very stony loam, 0 to 8 percent slopes	2.6	0.3%
CkC2	Calvin-Klivesville shaly silt loams, 8 to 15 percent slopes, moderately eroded	30.5	3.6%
CkD2	Calvin-Klivesville shaly silt loams, 15 to 25 percent slopes, moderately eroded	6.8	0.8%
CIB2	Calvin-Leck Kill shaly silt loams, 3 to 8 percent slopes, moderately eroded	311.6	36.4%
CIC2	Calvin-Leck Kill shaly silt loams, 8 to 15 percent slopes, moderately eroded	108.0	12.6%
DIF	Dekalb and Lehew very stony sandy loams, 25 to 80 percent slopes	153.7	17.9%
KaE2	Klivesville shaly silt loam, 25 to 50 percent slopes, moderately eroded	35.2	4.1%
LaB2	Laidig gravelly loam, 3 to 8 percent slopes, moderately eroded	0.0	0.0%
LaC2	Laidig gravelly loam, 8 to 20 percent slopes, moderately eroded	31.7	3.7%
LdD	Laidig very stony loam, 8 to 25 percent slopes	96.4	11.3%
VsF	Very stony land, steep	2.9	0.3%
W	Water	0.7	0.1%
<b>Totals for Area of Interest</b>		<b>856.3</b>	<b>100.0%</b>

**Survey of East Coast and Mid-West County Park Hunting Rules  
and  
Recommended Hunting and Trapping Rules for Detweiler Park**

by Josh First, Member, Detweiler Park Steering Committee Member  
May 21, 2019

For this project I did a non scientific random survey of about three dozen county parks in Pennsylvania, New Jersey, New York, Maryland, Michigan, Ohio, and Wisconsin. The methodology was a regional state-by state internet search, selecting a state and then searching for "[name of state] county park hunting." Then I read what emerged from that search. I also made phone calls to some county parks departments who did not post specific information about hunting at their parks, but where I suspected they might have something interesting.

After a month of this process, I found the following results, most of which were surprising:

- **Hunting in Eastern and Mid-Western county parks is very common, and is almost universal in larger county parks (surprising)**
- **Hunting in county parks is safe and does not conflict with other users (not surprising, as hunting across America is safer than high school sports, including cheerleading)**
- Some highly urbanized areas have small county parks where incorporating hunting with other day uses is a difficult challenge no matter the time of year, but the parks are still big enough to provide sanctuary to far more deer than the community can tolerate socially or sustain environmentally. In most of these cases archery and or shotgun hunting is used to balance the deer herd with the local carrying capacity, or expensive sharpshooters. In smaller parks or college forests, hunts are held while the park is closed or the students are on winter break.
- Regulations on hunting and trapping depend upon whether the park is large or small, rural, suburban, or urban. Large rural and suburban parks have fewer restrictions; smaller urban parks have many hunting restrictions, or no recreational hunting at all.
- Hunters are universally recognized by county park managers for providing important public benefits, without incurring public expense
- Larger county parks in more *urban* settings that do allow hunting, often, but not always, have some restrictions for hours, dates, weapon types (archery, shotgun, and or black powder), and species (usually deer, though overabundant bears are also an identified problem in places). Some hunts are determined by lottery or application, and highly controlled.
- Rural county parks and larger rural/suburban parks treat hunting as recreation and economic development, with few if any limits, usually mirroring the state hunting lands in the particular state.
- Urban county parks tend to put an emphasis on deer control, and a few do emphasize small mammal control (trapping) to protect ground nesting birds, reduce Lyme Disease, and prevent rabies and trash raiding. In general, in urban county parks, hunting seems to be seen primarily as a way to ensure or sustain biodiversity, healthy native plant communities, reduce deer-vehicle-collisions, reduce deer browsing on nearby private property, and to limit overabundant animals that are negatively impacting humans and other wildlife.
- When *smaller* urban county parks do allow hunting, it is usually highly structured and restricted, e.g. specific dates only, park is shut down to the public during the hunts, lottery system, pass accuracy test, weapon limitations (archery, shotgun, and or black powder). Sometimes hunting is barred to the public altogether, and the deer are dealt with through expensive night time sharpshooters.



Some examples of hunting at county parks:

York, PA Archery, shotgun, black powder

Lancaster, PA Archery, shotgun, black powder

Suffolk, NY Archery, shotgun

Westchester, NY Archery

Genesee, MI Archery for deer, shotgun for small game and waterfowl

Wood, Ohio Archery, shotgun, black powder,

Hunterdon, NJ Archery, shotgun, black powder

Mercer, NJ Archery, shotgun, black powder

Montgomery, MD Archery only: *"The safety of residents is our top priority," Montgomery County Parks Wildlife Ecologist Bill Hamilton said in a 2015 statement. After the harvest of 15,000 deer over 19 years, "we have not had one occurrence of personal injury of the public as a result of the Department's deer management operations."*

*"[Non-hunting] alternatives to managing an annual [deer] hunt would require significant expense. For example, hiring a professional culling company would cost the County \$700 per deer."* --Mercer County Parks, NJ website

Additionally, many towns and universities have deer hunting programs (and some small game) on their public lands, including Vassar College, Cornell University, Binghamton University, and Penn State University. While many similar places allow big and small game hunting in season for recreational purposes, some of these programs are specifically targeted at decreasing ecological damage and disease from deer. They do not want their properties to be deer sanctuaries.

**Pennsylvania State Parks** almost universally allow hunting, with most PA state parks excluding hunting from parking areas and main access points; a few urban PA state parks allow only archery, black powder or shotgun. In terms of its large acreage amongst rural surroundings, Detweiler Park is comparable to the nearby Ibberson Conservation Area and Boyd Big Tree Conservation Area, both of which allow hunting for almost all species with all weapon types (but no groundhogs). However, they do limit hunting to areas away from the main entrance areas where most people congregate or typically confine their day visit.

*Remember: While most park visitors do not want to see hunters, hunters for sure do not want to see other park visitors, as they can inadvertently interfere in the hunt. Anticipated conflicts between users almost never involve hunters, with mountain bikers and dogs off leash accounting for most.*

*Remember: Hunting is highly regulated and requires significant training before a license is issued. Statistically, both nationwide and in Pennsylvania, hunting is safer than nearly every high school sport, including cheerleading, soccer, baseball, football etc.*

#### Species Recommended for Hunting at Detweiler Park

Deer, bear, turkey, squirrel, coyote, fox, raccoon, possum, skunk. These are high-density, common animals easily identified and targeted, which most commonly carry diseases like rabies, and are most often associated with human conflicts.

## Species *Not* Recommended for Hunting at Detweiler Park

Rabbit, groundhog, pheasant, grouse, woodcock, waterfowl, crows. These are animals that can either benefit hunters and nature alike from having a non-hunting sanctuary (rabbits, waterfowl, upland birds), or which require highly active hunting methods that are most likely to bring hunters and other park users into direct contact (crows, groundhogs, rabbits). Not all types of hunting can be accommodated all the time at a park, and excluding these wild game species from hunting represents a reasonable limit on hunting here.

## Suggested Hunting Weapons

For all big game, use shotgun, archery, black powder *and/or* allow centerfire rifles in the farthest areas where heavy woods provides a safer backstop (that said, it's easier on park managers to simply exclude centerfire rifles and handguns for hunting). For hunting and trapping all other species, use shotgun and .22 caliber (includes the .22 WMR ) rifle or handgun, or state-approved hunting air gun. Hunters are highly safety conscious; I believe local hunters will understand if centerfire rifles and handguns are excluded from big game hunting within Detweiler Park.

## Suggested Trapping at Detweiler Park

- Traps at least 25 feet off either side of a trail,
- No aquatic trapping in or on the ponds (where people gather), Ok in the streams
- All furbearers in their seasons, including animals listed above on the no-hunting list like groundhogs, but begin trapping in the park in mid- or late November, when there are fewer park visitors overall and the targeted animals are most vulnerable

Consider having a rotating trapper lottery, approving just 2-4 trappers for seasonal trapping access (mid-November to mid-February), in order to limit the number of trappers in the park and create an optimal experience for both trappers and other park users alike. Note that all Pennsylvania trappers must be licensed in Pennsylvania, and generally speaking they are a highly experienced, safe, conscientious group of outdoorsmen. They are used to abiding by safety zones as well as other additional rules beyond those set by the Pennsylvania Game Commission. Many trappers also provide professional residential and commercial animal damage control services for a fee, so the guy you call to get a skunk out of your window well or a raccoon out of your attic also runs a winter trapline in the area. Trapping is safe and ecologically beneficial, even necessary in urban and suburban areas.

## Hunting Stands and Blinds

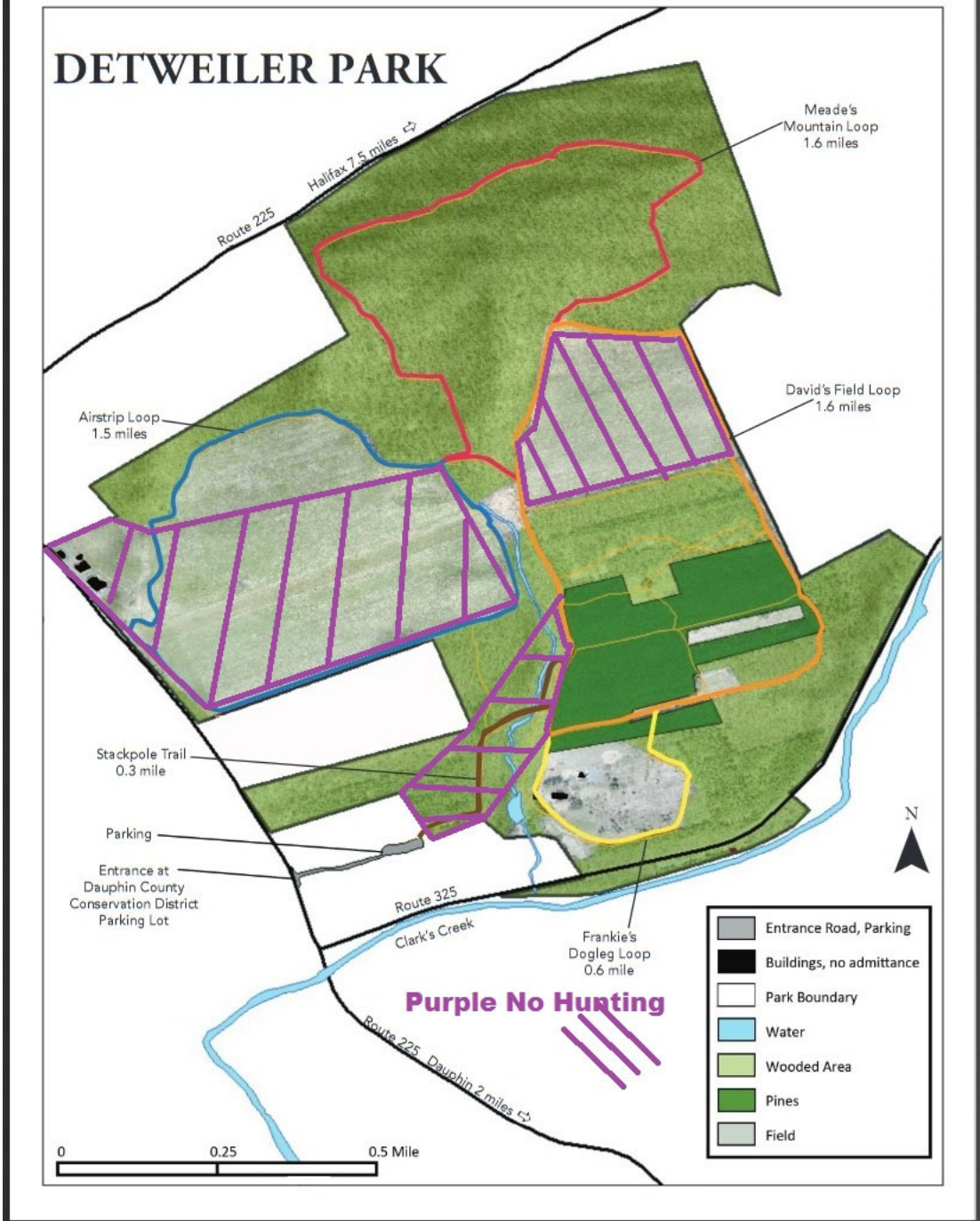
Managing the use of tree stands can be a headache for public land managers. They are a serious management challenge and usually require a lot of time, for so many reasons. Therefore, it is suggested that ladder tree stands *not* be allowed in Detweiler Park, but that carry-in climbing stands are allowed. Ground blinds would be allowed, and can remain set up overnight, so long as the owner has a tag on the blind with their name and phone number. The park is not responsible for any stolen or damaged blinds left overnight.

## Suggested Hunting & Trapping Hours at Detweiler Park

One hour before sunrise to one hour after sunset (whatever is selected by the steering committee should not conflict with regular park hours or state regulation). Sunday hunting permitted for more than coyotes if Pennsylvania adopts Sunday hunting for other species. No nighttime hunting or trap checks. Trap checks by 9:00 am and/or at dusk every day.

## Signage

The park should have simple signs specifically addressing hunting and trapping rules at main entrances like parking areas and trail heads, and encouraging all park visitors to share the resource. This is not difficult to ask or to expect in Central Pennsylvania, where hunting and trapping are highly popular.



Proposed Hunting & Trapping Map at Detweiler Park

Above is a draft map of where hunting and trapping would or easily could safely occur at Detweiler Park. Field interiors would be excluded from hunting and trapping because these are areas likely to be shared with a higher density of other users, and where even projectiles of limited range, like arrows and shotgun slugs, can travel their farthest because they are unimpeded by trees or brush. Field edges right where they meet the forest would be acceptable for hunting and trapping. The main entrance and exit corridor would be excluded for obvious reasons, and not so much for safety, but because while many (if not the vast majority) Dauphin County park visitors support hunting and trapping, they probably do not want to see it right as they enter into or exit from the park. Without prior approval by the owner, Pennsylvania's Safety Zone Law limits firearm hunting to 150 yards away from an occupied dwelling or building, archery hunting to 50 yards away from an occupied dwelling or building, and trapping to 150 yards away. Thus, in theory, archery hunting could be both legal and quite safe around the pond area, provided that it is at least fifty yards from the adjoining dwelling. The question about this specific area is how likely is it that many visitors will go to the pond and see an archery hunter or blind, and is that a bad or an OK occurrence. The map above is for discussion purposes; it is not intended as a final product.

## **Suggested RC Flying Site Specifications**

The AMA has determined that most AMA Chartered Clubs and members are careful in their selection of flying sites, site layout, and operational practices. The purpose of this document is to assist clubs in creating a flying site that is safe and promotes the fun and enjoyment of model flying. Please note that the AMA Safety Program must be followed at all times. AMA does not sanction or charter flying sites. We charter clubs but leave the design of sites to the local club. However, we do provide some guidelines here to assist in this process.

Every model flying site is different, hence the reason AMA does not have specific requirements for the site layout, other than the requirement to follow the AMA Safety Program. Considerations need to be made for the surrounding area and what space the club has obtained permission to overfly. Club membership should be involved in the design of a flying site and in creation of the specific flying site safety and operational rules associated with it to ensure the site owner, spectators, and model fliers of a safe flying environment. Please study the sample flying site lay-outs below. Use these samples to assist you in creating a site layout that works for your space, model fliers, and types of models to be flown at this site. By no means do these samples cover every possible situation, but they do show some typical lay-outs of flying sites. If you see that there is room for improvement of your field, we hope these samples will serve to assist you. If you are designing a new flying site, we offer these sample designs to assist you in planning your site. These suggestions are not mandatory requirements, and the use of any or all of these suggestions does not, of course, guarantee that no accident will occur. The AMA recommends that individual clubs design their flying sites based, not only on geographic area available, but also on sound sensitivity, obstructions, proximity of neighbors, etc. The types of aircraft the site is anticipated to accommodate, such as turbine-powered jets, giant scale or small electrics, will also affect an increase or decrease of the entire layout, including distances.

### **Steps to creating a Flying Site Layout**

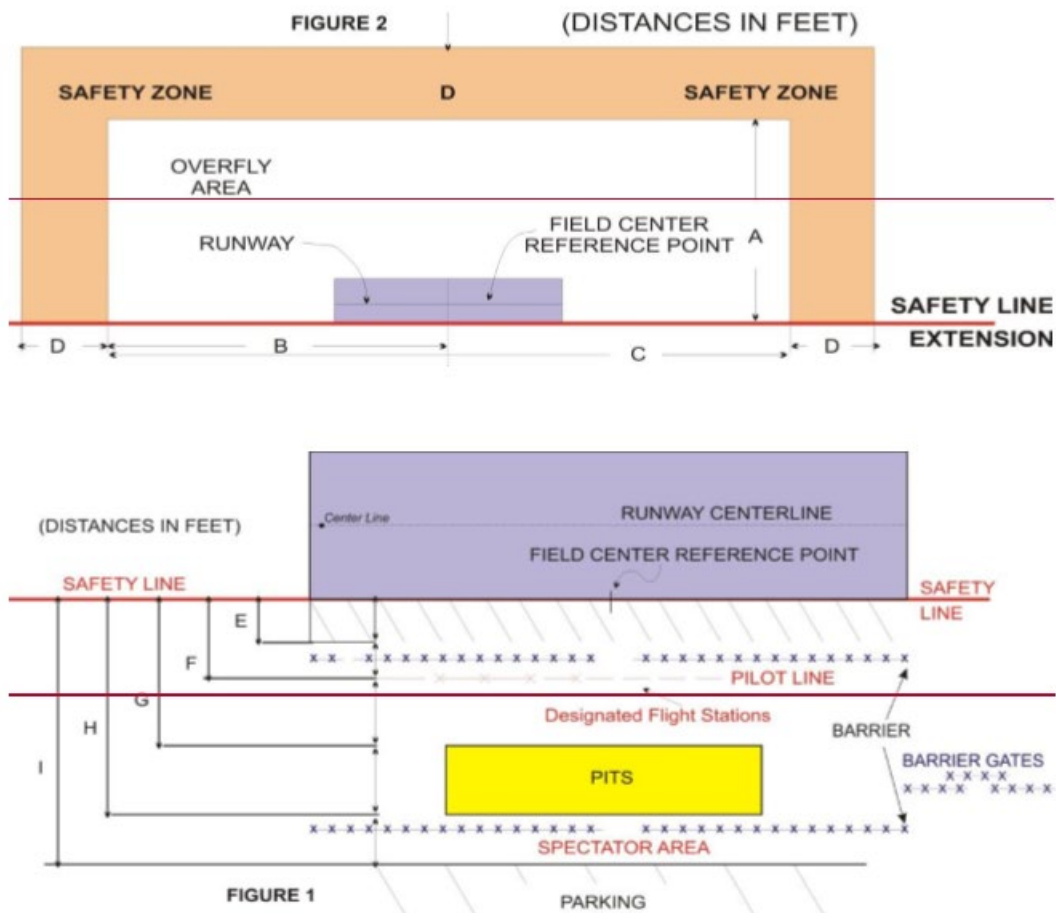
1. Determine available size of flight zone.
2. Create Safety line(s) to divide flight zone(s) from non-flying area.
3. Determine taxi and engine running areas.
4. Determine pit area size.
5. Determine spectator area.
6. Determine parking lot area.
7. Determine distances to the various components of the flying site, based on location of safety line(s) and flight zone(s).

### **General Guidelines for Flying Site Planning**

The table below can be used as a rough guide to help you to determine how much space might be needed to accommodate different types of aircraft. You can see that Jet and Giant aircraft need more space than Park Fliers do... for obvious reasons. Here again, these numbers are not requirements, but just some general guidelines that can be used to plan out your site.

	<u>Jets/Giant Scale/Pattern Field</u>	<u>Sport Flying Field</u>	<u>Small aircraft Field</u>	<u>Park Flier Field</u>	<u>FPV Drone Race Field</u>
<u>Distance A</u>	<u>1500'</u>	<u>750'</u>	<u>500'</u>	<u>150'</u>	<u>300'</u>
<u>Distance B</u>	<u>2000'</u>	<u>1000'</u>	<u>500'</u>	<u>150'</u>	<u>150'</u>
<u>Distance C</u>	<u>4000'</u>	<u>2000'</u>	<u>1000'</u>	<u>300'</u>	<u>300'</u>
<u>Distance D</u>	<u>500'</u>	<u>250'</u>	<u>250'</u>	<u>50'</u>	<u>50'</u>
<u>Distance E</u>	<u>0' to 15'</u>	<u>0' to 15'</u>	<u>0' to 15'</u>	<u>0' to 15'</u>	<u>0' to 15'</u>
<u>Distance F</u>	<u>0' to 25'</u>	<u>0' to 25'</u>	<u>0' to 25'</u>	<u>0' to 25'</u>	<u>0' to 25'</u>
<u>Distance G</u>	<u>0' to 45'</u>	<u>0' to 45'</u>	<u>0' to 45'</u>	<u>0' to 45'</u>	<u>0' to 45'</u>
<u>Distance H</u>	<u>0' to 65'</u>	<u>0' to 65'</u>	<u>0' to 65'</u>	<u>0' to 65'</u>	<u>0' to 65'</u>
<u>Distance I</u>	<u>0' to 80'</u>	<u>0' to 80'</u>	<u>0' to 80'</u>	<u>0' to 80'</u>	<u>0' to 80'</u>

By selecting a field type in the chart above, you can plug in the related numbers into the flying site graphic layout in Figures 1 and 2 below. This should give you a rough idea of what space is needed and a general layout of the field. When creating or redesigning any flying site, feel free to contact the AMA Flying Site Assistance Coordinator with any questions, comments, or concerns regarding specifications and layout.



### Components of a Flying Site

**Airspace of Flying Site:** The flight area, or “box”, inside of which all flying is to take place. The flight area would be the defined total airspace that model aircraft should always stay within while in the air. This area should be clear of unprotected people, vessels, vehicles or structures. Any obstacles, structures, or areas where people could be within this defined area should be clearly marked so that pilots know to not overfly them. The size of this “box” should be the first consideration, based on the type of aircraft anticipated to operate on this site.

The field center reference point is shown in FIGURE 1 but is essentially the edge of the runway at center of field (See alternate site layouts).

**Some general size recommendations for the flight area or “box” are:**

- Aircraft over 72” wingspan such as, Giant Scale, RC Scale Aerobatics RC Pattern, Sailplanes, and Turbine powered Jet aircraft (due to their speed): These may need as much as 2000 feet to the left and right of the pilot and 1500 feet in front of the pilot (total flight box size of 4,000 feet long by 1500 feet wide). The RC Aerobatics event has a defined “box” of 3580’ long by 574’ deep (1790’ to the left and right of the pilot and 574’ in front of the pilot). The aircraft DO fly outside of this area at times, so, with overfly area, you need about 4000’ x 750’ size box for the flying site.
- RC sport/aerobatic/scale models/helicopters up to approximately 72” wingspan: This would work for most RC sport/aerobatic/scale models up to approximately 72’ wingspan and is a typical size found at many AMA club flying sites.
- RC Park Fliers (models 2lbs or less and max airspeed of 60 MPH): these models will be able to fly in a much smaller area, about 300’ x 150’, roughly the size of a soccer field.
- RC Drone racing: these aircraft need a slightly wider field than the RC Park Fliers, about 300’ x 300’ to accommodate the racecourse.

**Barrier: (if desired)**

Designed to stop models from veering into pilots’ and/or spectators’ positions (Includes plastic or chain-link fencing, hay bales, shrubbery, etc. These may run the length of the flight line or be short to protect a single pilot station). If using metal fencing (chainlink, etc.) consider that the transmitter antenna needs to be in the clear of any metal that could cause loss of signal to the aircraft. Consider using non-metallic materials such as orange plastic fence materials.

Runway: If flying traditional radio-controlled airplanes, a runway should be designated within the overfly area on the site. This can be grass, dirt, geotextile, or hard-surface. If space allows, it might be desirable to have two runways to be able to handle most all wind directions.

Safety Line: Establishes the area in front of which all model flying must occur. Only personnel associated with flying the model aircraft are allowed at or in front of the safety line. This line can be straight, segmented, curved, or even box-shaped as long as the AMA Safety Program is followed so that the pilot, helpers and spectators are behind the safety line while aircraft are flying. Under certain conditions it may be possible to achieve a flying area covering almost 360°.

Pilot Line/Station(s): Where all pilots will stand while flying model aircraft.

Pilot Pit Area: Where pilots and helpers stage and service their models.



Spectator line: Where spectators can view the action. This can be a simple line of separation or perhaps a nice viewing area complete with grandstands.

Parking Area: You might have separate parking areas for pilots and spectators, depending on your site layout.

Safety Zone: A safety zone, surrounding the OVERFLY AREA (as marked on Figures 1 & 2), is desirable.

Sign Posting Recommendations:

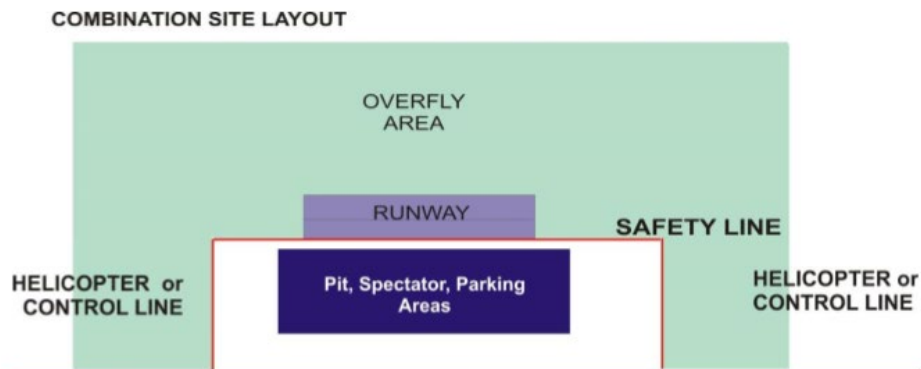
- “ My Club Flying Site” (This sign may be incorporated with the field rules but should be the leading words in a larger letter size at the top of the sign. Place any signs so that they can be easily read.
- Field Rules: Created by the club and members, this document should be placed near or in the pilot’s pit area so that they can be found and easily reviewed at any time. Pilots new to the field should be made aware of these rules prior to any flight operations.
- Current official AMA Safety Program: should be posted next to the field rules.
- “No spectators beyond this point without escort”: as needed
- Designated parking area (signs at boundaries): as needed
- Emergency Poster: which should contain the following at a minimum:
  - Telephone numbers of local EMS, emergency, and hospital facilities
  - Map showing the location of these facilities, with addresses
  - GPS coordinates and address of flying site to assist emergency services in locating the site.

#### Equipment:

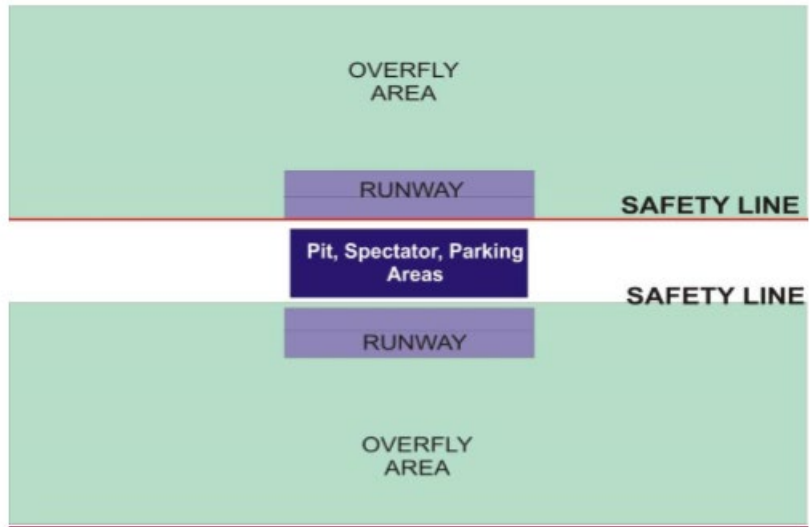
Frequency control board (if using 27 MHz, 50 MHz, or 72 MHz frequencies) First-aid kit(s) Fire extinguisher(s) with appropriate ratings (especially for Li-PO fires) Sand bucket(s) for Li-PO batteries

Alternate RC Flying Site Suggestions Sites may also be configured in various ways to accommodate different types of models such as sailplanes or could include multiple flying areas for simultaneous use. Examples would be a curved or box-shaped safety line as seen in the L Site Layout and the Combination Site Layout diagrams as shown. Care must be taken to fulfill the requirements found in the official AMA Safety Program.

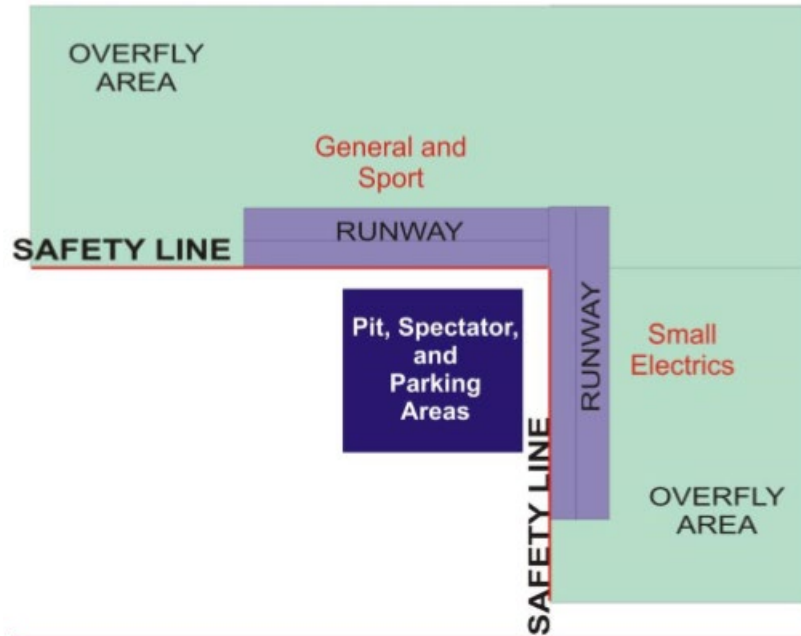
Sample field layouts with different options are illustrated in the following diagrams. (Not to scale.) Remember, the illustrations provided here a NOT the only options for a club! Feel free to modify as you see fit, if you fulfill all requirements of the AMA Safety Program.



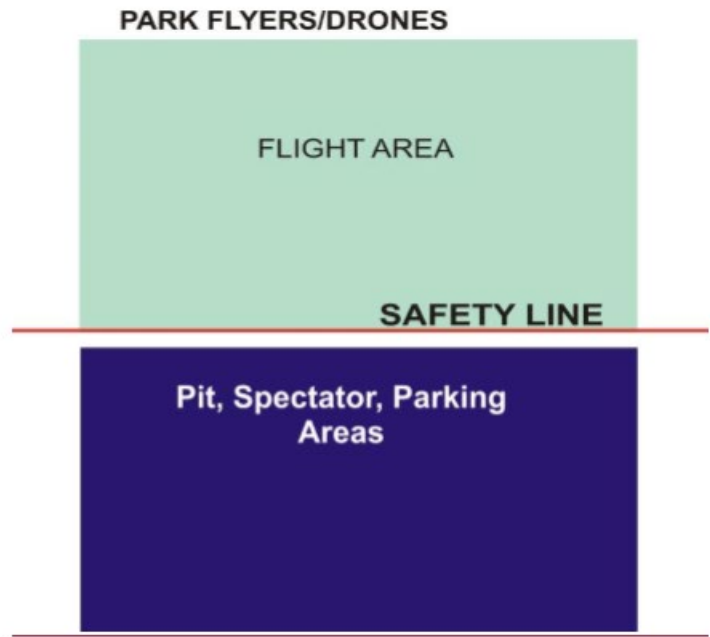
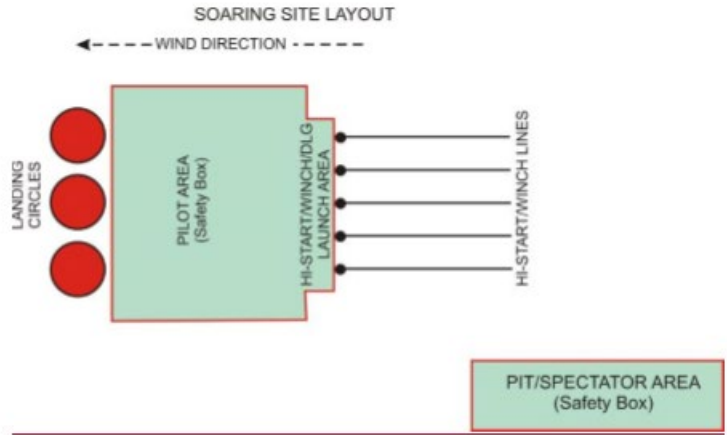
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Press Release  
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Articles

Date (12/20/19)

**Public Meetings announced for Detweiler Park Master Plan**

**The Dauphin County Commissioners Jeff Haste, Mike Pries and George P. Hartwick, III announce a series of four (4) public meetings to be held concerning the design of improvements at Detweiler Park.**

**The first meeting will be held Monday February 3<sup>rd</sup>, 2020 from 7:00 PM to 9:00 PM at the Dauphin County Conservation District's meeting room, 1451 Peters Mountain Rd Dauphin, PA 17018-9504.**

**All interested citizens are invited to attend and participate.**

Detweiler Park is a 411-acre tract of land acquired by Dauphin County through a combination of gift and purchase on December 29, 2016. The County Commissioners opened the park to the public six months after acquisition. The seven miles of wide and groomed trails were quickly embraced by the community. Trail counters showed park visits ranging from 400 per month in the winter months to over 1000 in the summer months.

The County in undertaking a master plan process to explore the development of both active and passive facilities within the park. You are invited to be a part of the planning process by telling us how you use this park and what improvements you would like to see in the park. Your thoughts about the park, open space and other recreational opportunities are vital to the planning process.

The County has retained the firm of Simone Collins Landscape Architecture ([www.simonecollins.com](http://www.simonecollins.com)) to assist the County in planning park improvements.

Subsequent public meetings are scheduled as follows:

- Public Meeting #2 is scheduled for Monday May 11th, 2020
- Public Meeting #3 is scheduled for Monday September 21st, 2020;
- Public Meeting #4 is scheduled for Monday December 7th, 2020.

All meetings will be from 7:00 PM to 9:00 PM at the Dauphin County Conservation District's meeting room, 1451 Peters Mountain Rd Dauphin, PA 17018-9504

For additional information, interested residents are encouraged to contact Carl Dickson, Director of Dauphin County Parks and Recreation Department at 717-599-5188 x 2111 or [cdickson@dauphinc.org](mailto:cdickson@dauphinc.org)

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[Pennsylvania Real-Time News](#)

## Dauphin County seeking public input on future of new, 411-acre park

Updated Jan 22, 2020; Posted Jan 22, 2020



Dauphin County commissioners will host a series of public meetings in 2020 to help shape the future of Detweiler Park, the newest outdoor space in the county. (DetweilerPark.org).

185  
shares

By [Steve Marroni](mailto:Steve.Marroni@pennlive.com), [smarroni@pennlive.com](mailto:smarroni@pennlive.com)

It has seven miles of walking trails meandering through 411 acres of woods and fields.

[Detweiler Park](#) in Middle Paxton Township is the newest park owned by Dauphin County, and through 2020, county officials will hold a series of public meetings to help determine what the future of that park will be.

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The meetings will be held at the Dauphin County Conservation District, 1451 Peters Mountain Road, from 7 to 9 p.m. on Feb. 3, May 11, Sept. 21 and Dec. 7. The park is accessible from the conservation district's parking lot.



According to Dauphin County officials, the county acquired the park from the Detweiler family in late 2016 and opened it to the public in June 2017. Since then, it has seen between 400 and 1,000 visitors per month, depending on the time of year.

Along with its trails and animal habitats, the park also has a fish hatchery, maintained by the Dauphin County Anglers and Conservation Club on Clark's Creek. There are also two 75-acre fields.

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"We have a chance to preserve and enhance the county's latest and largest park for future generations," Dauphin County Commissioner Jeff Haste, who oversees the county Parks and Recreation Department, said in a press release Wednesday. "As we develop a master plan, we want to hear from county residents."



The county has retained Simone Collins Landscape Architecture to guide the master site plan process with the park's steering committee.

Commissioners encourage the public to attend and weigh in on the future of the park, saying preserving green space and providing more opportunities for outdoor recreation improves the quality of life in the county.

It was the Detweiler family's wish to preserve the scenic property for future generations, county officials say.

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The \$2.4 million tract of land was purchased using no taxpayer dollars. The family had donated a large portion of the cost to help the county preserve it, and the rest came in the form of grants from the state and gaming revenue.

An online survey will also be available from Feb. 3 to Sept. 21 on the [park's website](#), where more information about the park can also be found.

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## Dauphin County Commissioners to hold second meeting on plans for Detweiler Park

Updated May 07, 2020; Posted May 07, 2020



Dauphin County commissioners will host a series of public meetings in 2020 to help shape the future of Detweiler Park, the newest outdoor space in the county. (DetweilerPark.org).

3 shares

By [Paul Vigna I.pvigna@pennlive.com](mailto:Paul.Vigna_I.pvigna@pennlive.com)

As part of a 12-month master site plan process for Dauphin County's Detweiler Park in Middle Paxton Township, County Commissioners Jeff Haste, Mike Pries and George P. Hartwick, III are hosting a series of public meetings that will help determine the future of the 411-acre park.

The second public meeting on May 11 from 7 to 9 p.m. will be conducted virtually, according to a press release.

Acquired from the Detweiler Family in late 2016 and opened to the public in June of 2017, the park features 7 miles of walking trails through various habitats and a fish hatchery maintained by the Dauphin County Anglers and Conservation Club on Clark's Creek. Additionally, there are two fields, each approximately 75 acres. Since it opened, the number of park visitors has ranged from 400 to 1,000 per month, depending on the time of year, according to the release.

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The second public meeting will feature a report on existing conditions in the park, in-process results of the public opinion survey, a summary of the first meeting's results, preliminary reports from team ecologists and foresters, and initial park development concepts for the park, according to the release.

"We are excited at the progress of the master plan," said Haste, who oversees the county's Parks and Recreation Department. "The master plan committee, made up of community volunteers, has met three times since the first public meeting held on Feb. 3, and their hard work will be evident at the meeting on May 11."

Simone Collins Landscape Architecture based in Norristown, Montgomery County, is working with a multi-disciplinary team to develop the master plan, which is scheduled to be completed by December. Future public meeting dates are Sept. 21 and Dec. 7.

The county received a \$75,000 grant from the state Department of Conservation and Natural Resources for the planning process, which the commissioners matched with a \$75,000 gaming grant, the release said.

A preliminary master site plan for public review and feedback is expected by the third meeting. A final plan will be available at the last meeting in December, according to the release.

"We have a chance to preserve and enhance the county's latest and largest park for future generations," Hartwick said in the release. "As we develop the master plan, we want to hear from county residents."

For additional information, contact Sarah Leeper at Simone Collins at [sleeper@simonecollins.com](mailto:sleeper@simonecollins.com) or by telephone at 610.239.7601.

To join the meeting by video, go to [www.DetweilerPark.org](http://www.DetweilerPark.org) for instructions.

To participate in the public meeting by phone, dial 412.447.5128 and enter the conference ID 958-100-404#.

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## Around the web

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# Meeting Notes

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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110**

Meeting Date/ Time: **12/09/2019 6:00PM – 7:30 PM**

Re: **Steering Committee Meeting #1: Project Kickoff / Programming**

---

### ATTENDEES:

Andy Brought

Gregg Cook

Vera Cornish

Carl Dickson

Deb Everly

Josh First

Sarah Leeper -Simone Collins (SC)

Eric Naguski

Chris Rebert

Julie Seeds

Joe Sherrick

Peter Simone - SC

Justin Warren

Amy Young

Sally Zaino

Paula Zankel

### NOTES:

1. Peter Simone and Sarah Leeper of Simone Collins gave a brief presentation. Peter Simone opened the meeting up for discussion regarding potential Goals, Facts, Concepts, and Partners for the Plan, please see attached list of goals, facts, concepts and partners. The following are key discussion points made during the power point presentation:
2. Josh F. noted that he had compiled an inventory of park systems from Long Island to Michigan noting the level of hunting and trapping they allow on their properties. He will share the inventory with SC.
3. Peter S. noted that the master plan will explore both passive and active recreation focusing on the next 10 years. He stressed though, that it is our job to envision and plan for the future of the park for the next 50 to 100 yrs.
4. Pete S. inquired if either house had been rented yet. Carl D. noted that there had been a lot of interest, but neither had been rented.
5. Pete S. noted that a major component of the plan is the phasing and implementation plan. He stated that the implementation of the plan would likely happen over many

phases and take 10-20 years. Carl D. cited Fort Hunter as an example. He noted that the 35-acre park's master plan was completed in 1980 and the County had just finished implementation of the final phase.

6. Pete S. noted that we would look to the committee for recommendations of key person / agency interviewees. He stated that these would be members of the greater community that may have vested interest in the site or unique knowledge of the site. He suggested that the interviews be targeted at specific times of the process, with some happening in the early stages when discussing site program elements; others may happen once a draft plan has been developed allowing for direct feedback on the plan.
7. Pete S. noted that the committee would play a key role in advertising the public meetings and serving as advocates for the master plan process. **He noted that SC would provide the County and committee with a press release and a poster.** It was suggested that the poster should advertise all the meeting dates while being graphicly strong to read well on social media platforms. It was recommended that posters be placed in physical locations such as the park to reach a greater audience. SC will provide a jpg of the poster. It was noted that many of the project partners would be able to include announcements of the master plan process and meeting dates in upcoming newsletters.
8. Pete S. noted that SC was completing the supplemental online survey and would have a copy to the committee to review. It was asked if the previous survey results would be shared with the committee. The results have been attached to these notes.

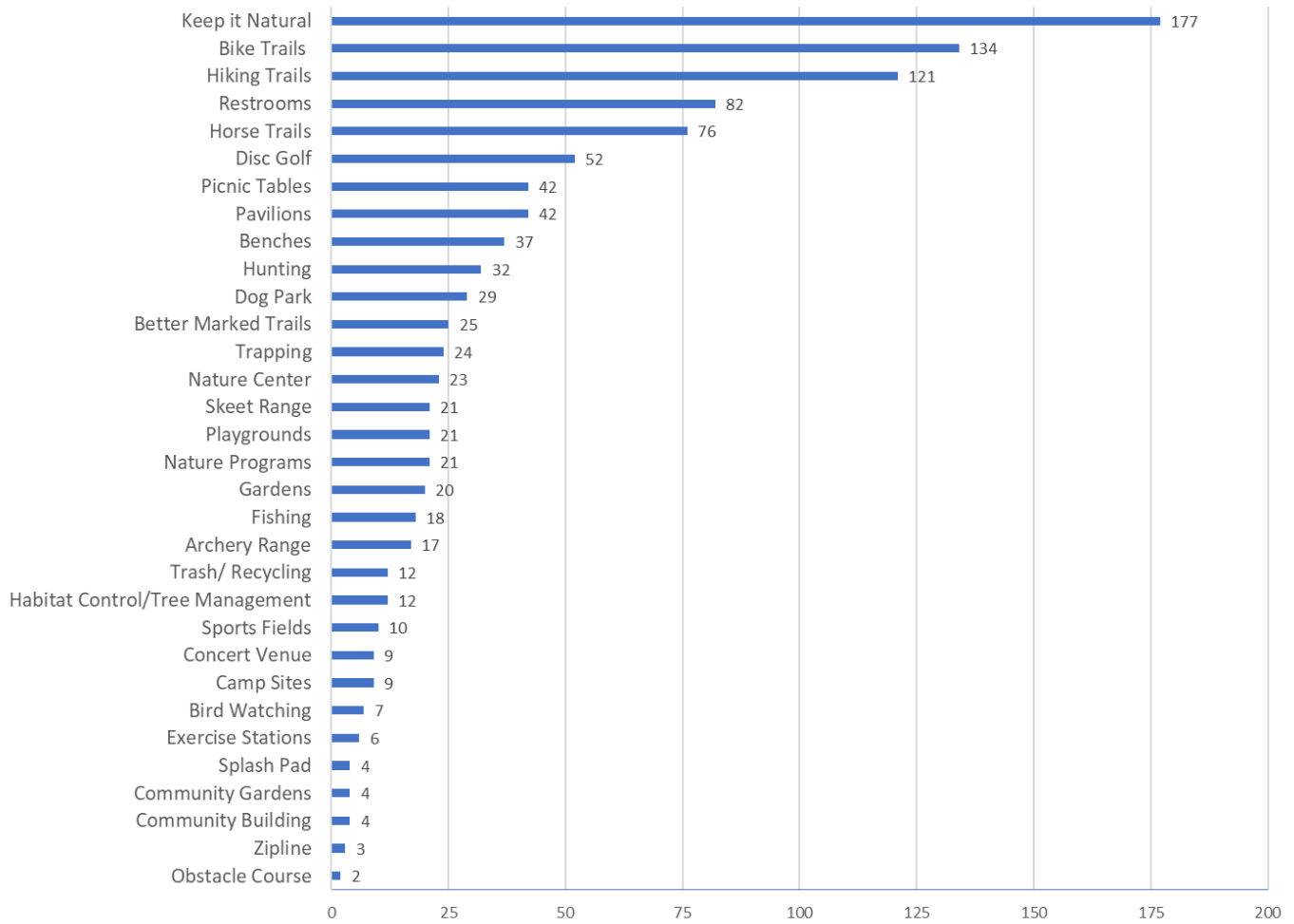
This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Sarah Leeper, RLA  
Project Manager

### Detweiler Park Survey



Keep it Natural	177
Bike Trails	134
Hiking Trails	121
Restrooms	82
Horse Trails	76
Disc Golf	52
Pavilions	42
Picnic Tables	42
Benches	37
Hunting	32
Dog Park	29

Better Marked Trails	25
Trapping	24
Nature Center	23
Nature Programs	21
Playgrounds	21
Skeet Range	21
Gardens	20
Fishing	18
Archery Range	17
Habitat Control/Tree Management	12
Trash/ Recycling	12

Sports Fields	10
Camp Sites	9
Concert Venue	9
Bird Watching	7
Exercise Stations	6
Community Building	4
Community Gardens	4
Splash Pad	4
Zipline	3
Obstacle Course	2

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## BRAINSTORMING SESSION

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **100 Fort Hunter Road  
Harrisburg PA 17110**

Meeting Date/  
Time: **12/09/2019  
6:00PM – 7:30 PM**

Re: **Steering Committee Meeting  
#1: Project Kickoff /  
Programming**

---

### GOALS:

- Develop a Master Plan

### Facts:

- 411-Acres
- No County Controlled Hunts
- Currently Haying Site
- Existing Fish Hatchery
- Fish Hatchery: Current Programs List
- DCCD Park Access Temporary
- Private Well and Septic
- Use County Data Bases for Advertising Meetings
- Close to Appalachian Trail (AT)
- Bird Migration Area

### Concepts:

- “Public” area social space
- Peaceful “private” spaces
- What’s the site’s story?
- What am I going to see?
- Incorporate culture / arts
- Variety of Experiences
- Stewardship Forest Concept
- Trails
- Walking and hiking
- Running Trails

- ADA trails
- Biking Trails
- Horseback riding
- Connect to Appalachian Trail
- Cross country skiing
- Environmental Assessment
- Environmental education
- Box turtle sanctuary
- Native plant sanctuary
- Nesting Bird Habitat
- Butterfly meadow
- Apiary
- Nature based play area
- Improved stream access
- Archery range
- Soccer fields
- Active sports fields
- Winter sports
- Camping
- Group camping
- RV camping
- Disc golf
- Sports competition events
- Tough Mudder Races
- Spartan Run
- Symphony - Summer Concerts
- School field trips
- Event / Festival space

- Limited or no light pollution
- Solar panels on buildings
- Visual & digital invitation (JPEG)
- Alternative parking location

### Partners:

- DCNR
- Middle Paxton Township
- Adjoining Private Landowners
- PennDot
- Harrisburg Area Community College
- Manada Conservancy
- Appalachian Audubon Society
- Dauphin County Woodland Owners Association
- PA Game Commission
- Dauphin County Conservation District
- State Police
- Central Dauphin High School
- Trout Unlimited
- Dauphin County Anglers & Conservationists
- Central Pennsylvania Conservancy
- Central Dauphin School District
- 13 elementary schools,
- 4 middle schools and
- 2 high schools
- Clarks Creek Watershed Association
- Dauphin-Middle Paxton Historical Society
- Ned Smith Center for Nature and Art
- Dauphin - Middle Paxton Fire Company
- Park Sponsors
- PA Fish and Boat Commission
- Appalachian Trail Conservancy
- Halifax School District
- 2 elementary schools,
- 1 middle school and
- 1 high schools
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission
- Appalachian Trail Conservancy
- Harrisburg Symphony
- Dauphin County Visitors Bureau: "Visit Hershey Harrisburg"
- Hershey Harrisburg Sports & Events Authority
- Boy Scouts
- Girl Scouts
- Business Community (within geographic footprint – 30 miles)
- DCNR Bureau of Forestry
- Colleges, Universities, School Districts
- Harrisburg Area Community College (HACC) -
- Middle Paxton Township EMS
- Include all committee representatives' groups on Partners list
  - Tri-County Regional Planning Commission
  - Dauphin County Planning Commission
  - DCNR Bureau of Forestry
  - Dauphin County Department of Community and Economic Development

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Melissa Barley, ASLA



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## MEETING NOTES

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Project:	<b>Detweiler Park Master Site Plan</b>	Project No.:	<b>19060.10</b>
Location:	<b>Dauphin County Conservation District Office 1451 Peters Mountain Rd Dauphin, PA 17018-9504</b>	Meeting Date/ Time:	<b>02/03/2020 7:00PM – 8:30 PM</b>
Re:	<b>Public Meeting #1: Project Background / Brainstorming</b>		

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### ATTENDEES:

Please see attendee sign-in sheets

### NOTES:

1. Commissioner Jeff Haste began the meeting by welcoming all attendees. He spoke of the need of park space in the area and that the site already gets many visitors. He told the attendees that his hope was that everyone would come together and create a masterplan that best reflects the wishes of the community. He described how a successful process can lead to a successful park, much like the Ned Smith Center for Nature and Art.
2. Peter Simone (Peter S.) started the presentation with introductions of the consultant team, the agenda for the meeting and the scope of work for the consultant team. He introduced Mike McGraw (Mike M.) of Applied Ecological Services Inc.
3. Mike M. described his scope of work on the project in which he would be investigating the ecological layers of the site and looking to get a snapshot of existing wildlife. He asked for attendees that were interested in volunteering in data collection during certain times of the season, to contact him.
4. Peter S. mentioned that there was contact information on the agenda handout and that if anyone wanted to contact Mike M. or had any comments, they should reach out to the contacts listed. Peter S. continued with the presentation by providing an overview of the master planning process and the project schedule.
5. Sarah Leeper (Sarah L.) continued the presentation with the initial analysis of the site and a photographic site tour.

- 6.** Peter S. told the attendees that the public survey and wikimapping were now live and stressed that it was important to get out this information to friends and neighbors who are not in attendance so that the consultants can get a better idea of ideas from the community.
- 7.** Peter S. led the attendees through an interactive discussion where they brainstormed goals, facts, concepts, and partners. Please see list at the end of the notes for ideas and information gathered from the brainstorming exercise. The following is a summary of key points from the discussion during the brainstorming session.
- 8.** Many attendees mentioned the natural beauty, site vistas, and trails, and that they would like the site to remain natural and provide value for future generations. One attendee proposed using an area as a permaculture/food forest to provide food for wildlife and the community.
- 9.** Attendees stated that the Girls and Boys Scouts should be considered as partners, and that the site could provide opportunities for earning merit badges. It was also mentioned that these groups would be helpful with site stewardship. Pete S. and Mike M. indicated that stewardship of the site is very important and cannot be done by the county alone. Mike M. noted that creating a stewardship plan will come as more data is gathered to identify stressed areas, and that any volunteer help is welcomed. Pete S. added that this type of work is generational and to be successful would require a flexible, long-term plan.
- 10.** Attendees from several bicycle groups (SAMBA-Susquehanna Mountain Biking Association, Susquehanna Bicycle Coalition, and Pennsylvania Interscholastic Cycling League) expressed interest for mountain bike trails on site and noted their group's heavy involvement in stewardship in other surrounding areas.
- 11.** Peter S. noted that there can be some controversy associated with mountain bike trails, but this process will consider all ideas and that education the public regarding impacts /conflicts or benefits of various user group is important part of the master plan process. He explained his successful partnership with mountain biking groups in the Wissahickon Park (Philadelphia) and the importance of such groups when it comes to care of the site.
- 12.** A representative of the Harrisburg Area Flying Society spoke of their desire to use the former airstrip area for model airplanes. He noted that they currently have 50 members and that the group would be willing to work with local groups and neighbors to make sure they do not disturb anyone. He mentioned that an area they had been using is now going to be developed and that they would only need about 700 x 25 ft of the airstrip meadow.
- 13.** Many of the attendees discussed the importance of ADA accessibility and provided some examples of successful ADA paths in natural areas, such as Sweet Arrow Lake and King's Gap State Park.

- 14.** Peter S. stated that Landscape Architects are obligated to make areas accessible, but it is also the right thing to do. He described that use of materials and surfaces will be investigated in the process to provide accessibility where feasible. He further described some materials that could be used such as stone dust and asphalt. He noted that many do not perceive asphalt walkways as appropriate in a natural area, however asphalt does provide a durable, low maintenance surface, and when properly designed can limit erosion.
- 15.** An attendee mentioned that the site sees use in the winter for cross country skiing but noted that access to the desirable level areas can be difficult. Pete S. remarked that there are many programming ideas that can be used on the site and that winter programming such as cross-country skiing and sledding could provide for winter activities. He added that the site is large and can accommodate a myriad of programs, such as night-sky viewing or nocturnal animal observation hikes. He noted that night-time could be a very peaceful time to enjoy the site. Mike M. mentioned that he has noticed various owl species on site. Another attendee stated that David's Field is already considered as a "secret night site" for some. One attendee suggested that the Harrisburg Astronomy Society could be a partner.
- 16.** An attendee asked about the monoculture pine forest area and provided a concept of creating a "cathedral tunnel/space" by lobbing up the low branches. Another asked if they could be sold for lumber.
- 17.** Peter S. stated that the pine trees are probably reaching their age limit and are in decline. He noted that they wouldn't provide much value as lumber, perhaps just pulp or site mulch. He added that the "cathedral" idea could provide a transitional use as other plants or trees are introduced into the area. An attendee stated that they want big trees to fill the site in the future. Peter S. answered that understanding climate change and thinking 100 years in the future will provide best opportunities for these spaces.
- 18.** An attendee noted that the Penn State Master Gardeners could be considered a partner and as educators about native plants and their care.
- 19.** An attendee stated that the Detweiler's recognized the creek that ran through the site and its' important relationship to Clark's Creek. He added that fishing is important to the community. Another added that conservation and enhancement of the riparian buffers should be considered in the plan.
- 20.** Mike M. agreed that protection of headwaters and wetlands on site were important and noted that not all wetlands have been identified on the site. Mike M. also noted that there are many other natural resources to be identified and preserved such as the stand of native *illex opaca* "American Holly" that exists on site and is not typical for the region.
- 21.** An attendee expressed concerns of an additional entrance from Clarks Valley Road. She noted that the road was very busy.

- 22.** Peter S. noted that this would be considered in the masterplan and that Peters Mountain Road is also busy. Plan recommendations will ensure safe vehicular access into and out of the park.
- 23.** An attendee expressed concern for added waste on the site as visitation increased and asked what could be done to keep waste down and the site sustainable.
- 24.** Peter S. noted that the consultants would work with the County to provide best practices to reduce negative human impact to the park. Carl Dickson (Carl D.) mentioned that the site is by far the largest park site in the County and using grants and volunteers, perhaps forming of a “Friends of” group, would help in keeping the park beautiful.
- 25.** Some attendees noted the need for amenities or added ones such as nice restrooms, picnic tables and wayfinding signs. Others asked for educational signage. One attendee commented that she liked the bright orange Adirondack chair; noting that they grabbed your attention from far away and helped draw visitors into new parts of the park.
- 26.** An attendee noted that the Dauphin County Woodland Owners Association could be considered a partner and assist with education of woodland stewardship.
- 27.** An attendee asked about deer control and noted that there had been several deer – car accidents on surrounding roads in the past six months and there was a sizable deer population on site. He suggested controlled deer hunts as a way to manage deer population.
- 28.** Peter S. noted that this has been done in some parks. Carl D. stated that this is not done in Dauphin County Parks. Mike M. explained that the stewardship plan will identify strategies for protection of planted restoration areas and deer population control.
- 29.** Other thoughts expressed by attendees for the park included connections to the Appalachian Trail, limited/controlled equestrian use, and sustainable trail development. Peter S. asked about consideration of active uses such as a soccer field. The attendees noted that they would not be interested in the development of active sports fields on site.
- 30.** An attendee asked if the consultants would be presenting a proposed plan at the committee meetings. Peter S. explained that the team would be presenting ongoing analysis work and initial ideas at the upcoming committee meetings and that the draft plan would evolve from the public and committee input we receive over the next 6 months and would be presented to the public in September.
- 31.** Peter S. went over next steps and repeated the need for attendees to get the word out about the survey, wikimapping, and upcoming meetings. He thanked everyone for a great meeting.

**This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.**

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter, ASLA

The following is the information and ideas gathered from the brain storming exercise:

### **GOALS:**

- Develop a Master Plan
- Improve public access
- Forest management plan
- Watershed enhancement
- Honor unique features
- Preserve spirit of natural environment
- 100-year restoration plan
- Honor Detweiler Legacy
- Zero waste

### **Facts:**

- 411Acres
- Existing trails
- Place to get "lost"
- Range of experiences – fields to woods
- Primary access from DCCD
- *Alanthus altissima* on site
- Large vines – most invasive
- Secret meadow
- Great Horn and Eastern Screech Owls
- Headwaters on site
- Red squirrel population in pines
- *Ilex opaca* on site
- Largest county park
- Orange chairs grab attention

- 11 deer accidents on roads in past 6 months
- Horse trail at Ned Smith Center has issues
- 21 different butterflies and moths
- 9 dragonfly species

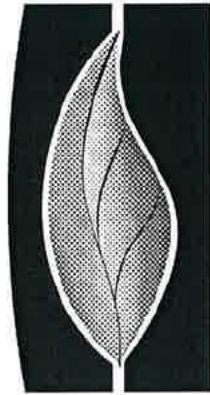
### **Concepts:**

- Environmental education
- Maintain large open fields
- Protect viewsheds
- Keep natural
- Permaculture / food forest
- Introduce Chestnuts, pawpaw, native fruits
- Native Fruits Harvest festival
- Restrooms
- ADA trail access
- Use portion of airstrip for model plane club
- Trail upkeep and maintenance
- Prioritize invasive removal and restoration
- Use trail color to denote trail difficulty
- Wayfinding / trail blazing
- Shared used /multi-use bike trails
- Badge earning opportunities Boy/Girl Scouts

- Star gazing
- Peters Mountain Rd access point
- Consult people with disabilities
- Cross country skiing
- Community resilience
- Sledding
- Better access to level trails
- Camping
- Group camping events
- Create “Cathedral Tunnel” in pines
- Plant Big trees
- Re-route steep slope trails
- Foster stewardship relationships with adjacent landowners
- Long term-add acreage to site
- Picnic areas
- Safe roadway access
- Shade structure over trout hatchery
- Maintain fish stocking
- Donor trees and benches programs
- Volunteer work groups
- Deer population control
- AT trail connection
- Children mountain bike trails
- Use trails to assist with stormwater management / erosion
- Develop sustainable trails
- No active recreation
- Use i-naturalists to share data
- Create a Friends of a Park

## **Partners:**

- DCNR
- Middle Paxton Township
- Dauphin County Anglers & Conservationists
- Girl Scouts – 13 members
- Boy Scouts
- SAMBA- Susquehanna Area Mountain Bike Association
- Harrisburg Area Flying Society
- Astronomical Society of Harrisburg
- Master Gardener – Penn State Extension
- Dauphin County Woodland Owners Association
- PA Interscholastic Cycling League



**SIMONE COLLINS**  
**LANDSCAPE ARCHITECTURE**  
 119 EAST LAFAYETTE STREET NORRISTOWN, PA 19401  
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 WWW.SIMONECOLLINS.COM

**MEETING SIGN IN SHEET**

Project: **Detweiler Park Master Plan** Project: **19060.10**  
 Location: **Dauphin County Conservation District Office** Date: **02.03.2020**  
**1451 Peters Mountain Rd, Dauphin, PA 17018**  
 Topic: **Public Meeting #1 – Project Background / Brainstorming** Time: **7:00 – 8:30 PM**

Last Name	First Name	Email
HOOPER	Brian	
CASCIOTTI	MICHAEL	
ANKOWITZ	STEVE	
SNYDER	DERLE	
Snyder	Betsy	
Beck	Wanda	
FASANO	PRINIS	
Stebbins	Anthea	
Ember	Mark	
THOMAS	MICHAEL	
Bellis	Fred	
Warshofski	Kayla	
Dech	Steve	
Duzne	Good	
Everyby	Debbie	

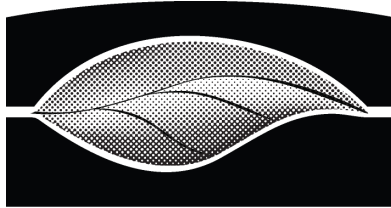












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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110**

Meeting Date/ Time: **02/17/2020 6:00PM – 7:30 PM**

Re: **Steering Committee Meeting #2: Review Public Meeting / Process Analysis**

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### ATTENDEES:

Andy Brought  
Gregg Cook  
Vera Cornish  
Carl Dickson  
Deb Everly  
Josh First

Sarah Leeper -  
Simone Collins (SC)  
Eric Naguski  
Chris Rebert  
Julie Seeds  
Joe Sherrick

Peter Simone - SC  
Justin Warren  
Amy Young  
Sally Zaino  
Paula Zankel

### NOTES:

1. Peter Simone and Sarah Leeper of Simone Collins gave a brief presentation that reviewed information gathered from the first public meeting, survey to date, and initial analysis of the site. The following are key discussion points made during the power point presentation:
2. Carl D. noted that the Peters Mountain House is rented. He also mentioned that adjacent landowner conservations easements should be verified. He did not believe the Evergreen Lane properties had a conservation easement but that there may be conservation easements along Clark Valley Rd and further north along Peters Mountain Rd.
3. A committee member asked if there was a possibility for more land acquisition to increase the size of the park. Pete replied that SC would be looking into this and recommendations would be based on Applied Ecological Services data along with recreational needs.
4. Peter S. explained what a Key Persons interview was and asked members to assist with coming up with a list. Carl D. mentioned that often key person interviews allow for the consultant to reach out to and communicate with special interest groups. He noted that key person interviews serve as a third leg to gathering public opinion in conjunction with meetings and the survey.

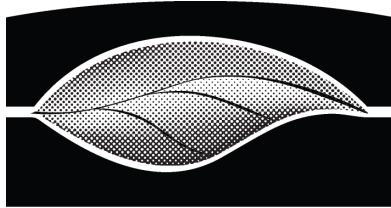
5. Preliminary survey results were reviewed; there was a discussion about the demographics of the survey takers to date and the thought that certain interest groups may be loading the survey. Pete noted that this is always a fear with online surveys however in SC experience will seldom see this happen. He noted that the survey is a tool for gathering information not a form of voting.
6. A discussion of current uses and ideas for the site:
  - a. The model airplane club has permission for use of the site for the next year. It was noted that the airport runway is a cultural landscape.
  - b. A committee member asked if the streams could be named. It was noted that typically streams are named if they cover 100 acres and DEP or DCNR will name it. Carl stated that a small stream is the spine of the property. Paula Z. expressed that the watershed for this stream needs to be recognized for what it is and that it is a special place. Vera C. asked if the naming rights to the streams could be sold to raise money for the park.
  - c. Josh F. asked if a portable mill could be introduced to the site. Peter S. noted that SC has done a project where timbering was used on site and the some of the wood was reused in the park.
  - d. Carl D. stated to keep the park natural.
  - e. Vera C. stated that access for everyone should be a priority. Julie S. added that parking needs to be at front of the design/ construction.
  - f. Josh F. and Sarah discussed changing the cycle of mowing and the effects it could make with the habitat. Deb E. asked if it would create any safety issues; it was noted that it should not.
7. Paula Z. asked if there is any interest from commercial vendors. Carl D. noted that there are no set policies and at this point policies for commercial vendors should be place on hold for now.
8. A committee member mentioned that they were approached about use of an old bridge on the site. Josh F. stated that there is a historic repository for bridges. The idea that a long span could be used to bridge the central stream to create ADA entrance into the park. It was discussed that the vehicular / industrial scale of such bridges may not be in keeping with the feel of the park.
9. Peter S. explained that implementing a park design of this size will take time. The plan is for the next 10-20 years but will address the needs of the environment for the next 50-100 years. Vera C. stated that the master plan should frame the conversation of what will happen at different times.
10. Vera C. stated that the committee and consultants need to listen to the community and not be tainted by bad opinions.
11. Peter S. thanked everyone and ended the meeting.

This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110**

Meeting Date/Time: **03/09/2020 6:00PM – 7:30 PM**

Re: **Steering Committee Meeting #3: Process Analysis / Initial Concepts**

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### ATTENDEES:

Andy Brought  
Gregg Cook  
Vera Cornish  
Carl Dickson  
Deb Everly  
Josh First

Sarah Leeper -  
Simone Collins (SC)  
Eric Naguski  
Chris Rebert  
Julie Seeds  
Joe Sherrick

Peter Simone - SC  
Justin Warren  
Amy Young  
Sally Zaino  
Paula Zankel  
Rob Gladfelter - SC

### NOTES:

1. Peter Simone and Sarah Leeper of Simone Collins gave a brief presentation. Peter S. addressed In-process analysis of architecture, forestry, and ecology; and he opened a discussion for finalizing a Key Persons interviewee list. Sarah Leeper discussed updated opinion poll results and initial concepts. The following are key discussion points made during the power point presentation:
2. Carl D. noted that the Peters Mountain House now has tenants on a year to year lease. The garage is also rented with the house. He also stated that the Detweiler House was also ready for tenants and the stables would be negotiable for renting with the house. He stated that the rent from these properties go to the parks.
3. Peter S. noted that the Dauphin County Anglers & Conservationists asked for a shade structure at the fish hatchery. It was also noted that this is a difficult area for crossing from the fish hatchery to the park and that if a crossing were installed a Rapid Flashing Beacon should be considered.
4. Andy B. provided updated information on the forestry analysis. He noted that there is very little native understory due to deer stress. In the northern woods of Oak, Hickory, and Tulip Popular, the average DBH of the trees are between 18-24”.

5. During the Key persons interview, the committee discussed people that could be added to the list provided in the presentation and Carl D. would sign off on the final list:
  - a. Game Commission Regional Biologist, Dan Mummert. It was noted that he would also be able to review or assist with the general wildlife plan.
  - b. Peter S. noted that emergency responders would be interviewed after the concept was completed
  - c. Harrisburg Hunters and Anglers – they could provide insight with passive and active use of the park through their experience
  - d. Nature Conservancy, Pennsylvania Chapter located in Harrisburg
  - e. Pennsylvania Natural Heritage Program – DCNR – it was noted this group may have a knowledge of overall wildlife that can be gathered from their reports.
  - f. Liz Rodda from Dauphin County Historical Society. It was noted that there is a rich history in the area such as old furnace, Dinky Trail, and Victoria Trail
  - g. Esmi Friedman – Detweiler family member
  - h. HACC – possible people to talk to would be from the biology department
  - i. Appalachian Trail Conservancy – it was noted during this conversation that the Park Service has a public easement of 200 yards, but it actually may be less and more likely close to 150 feet.
  - j. Doc Fritchey of Trout Unlimited
6. Sarah L. presented the initial concepts and described the concept through plans for separate sections of the park. The following is the key points from each section of the concept.
7. Large Field –
  - a. Provide a footpath along the streams
  - b. Add a driveway access off of Peters Mountain Road, Sarah noted that there would most likely need to be deceleration/ acceleration lanes. Peter S. stated that a discussion with PennDOT (District 8) would provide guidance to adding a driveway access here.
  - c. A committee member asked if the proposed parking would meet the needs for accessing the fields. Sarah L. stated that there are approximately 50 parking spaces for the area.
  - d. A committee member mentioned that people from the first public meeting did not want playing fields in the park. Peter S. explained that the team addressed comments from both the survey and from the meetings and the County has asked SC to look at a range of activity types.
  - e. Overall, the committee liked the idea that trails throughout the park can be accessed from different parking locations.
  - f. A committee member noted that creating meadows does take work for establishment and maintenance.
  - g. It was noted that the concepts will evolve as we receive feedback from the forestry Stewardship Plan and Ecological Site Assessment.

8. North Woods –

- a. Committee member asked if there is a need for mountain biking. It was noted that there is a high demand for mountain biking in the area and that there are several areas nearby that have mountain bike trails. A member asked if 100 acres was really large enough to accommodate this group. The committee discussed that trails would have to be designed and managed for multi-use and that possible limitations to mountain bike users may be needed. Perhaps trails could be used for youth mountain bike groups only. It was stated that SAMBA has been good at lobbying their cause and also helping with trail management.
- b. It was noted that this area had a lot of visible geology, and the southeast area has a healthy forest area. A committee member also explained that there are a lot of snags from Oak mortality due to Gypsy Moth stress and Ash mortality due to Emerald Ash Beetle stress. There is also a lot of bittersweet damage along the edges of the woods.

9. Eastside Meadow-

- a. The committee liked the proposed trail alignment to help reduce impacts to the natural hydrology that divides the Eastside Meadow from the Large Field area.

10. Pine Tree Plantation –

- a. A committee member expressed concern for removal of all the trees. Another committee member stated that the area is stressed due to a lot of invasives and that removal of the invasive plants may not guarantee that the trees in the area will rebound.
- b. It was noted that as the forestry plan is completed, it will dictate on how the space will be used in the future. Peter S. stated that it appeared that many of the pines are near their end of life and a plan is needed for the next stage of renewal in the space.

11. Homestead –

- a. A committee member noted that neighbors are concerned about trails being too close to their properties. It was also noted that there are steep slopes along the north side of the pond area.
- b. A discussion about whether to keep the pond or convert it to a wetland followed. Reasons for keeping the pond included allowing fishing and dog swimming use. Reasons for converting to a wetland area included greater biodiversity, easier to manage, and less thermal stress to Clarks Creek.
- c. Peter S. stated a rapid flashing beacon could be used to increase safety of crossing Clarks Valley Road between the fishery and the larger park.

12. After discussion of the concepts ended, Carl D. asked each committee member to make a statement on their thoughts of the concepts.

- a. Amy Young liked the ideas of having many uses for the park and including education as part of the programming. She questioned how hunting could be included and if there are dangers from model airplanes using the space. She also noted that restrooms and parking need to be easily located.
- b. Julie Seeds loved the concepts and appreciated that it addressed a diversity of uses and age groups.



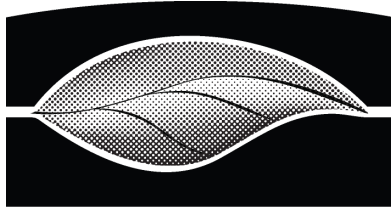
- c. Chris Rebert believed the concept captured the natural integrity of the area and believed the additional proposed parking would relieve parking stress at the Conservation District building.
  - d. Sally Zaino liked the concept and added that it captured a lot of space for walking and hiking, while keeping a majority of the site natural.
  - e. Paula Zenkel noted that the concept was a good start but expressed concern over the large loss of trees in the Pine Plantation area. She added that there could be other places to add parking, such as the fishery location.
  - f. Deb Everly believed the concept was a good place to start but noted that it was too early to talk about details without having all the analysis completed.
  - g. Gregg Cook stated that all opportunities for the space should be explored. He added that this is a large site that can handle both active and passive recreation.
  - h. Andy Brought asked that the park to be left without any sports fields. Amy Y. noted that many of the area sports fields are overbooked. Andy commented that the park should be left unique and pristine and that invasives are a large problem in the area. He noted that he would like to wait for the analysis from Applied Ecological Sciences as it may apply to the discussion for the pond and meadows.
  - i. Joe Sherrick thought the concept is a good start and addressed multiple uses and he noted that he would like to see larger core meadow areas. He added that parking should be located closer to the road and that the fishery could provide enough space for overflow parking.
  - j. Eric Naguski liked that the concept addressed stream health and hydrology but feels that some aspects of the plan needs to wait for completion of analysis reports. He added that there should be more improvements to address access to Clarks Creek. He added that additional parking is needed to release parking issues at the Conservation District building. Sarah L. asked if there is a need to add parking to the Conservation District. It was mentioned that no one ever complained that there was never enough parking at the building and perhaps a traffic counter would provide more information.
13. Carl D. stated that he was impressed with the wealth of knowledge that the committee brought to the table and believes that the plan was balancing the needs of all.
14. Peter S. thanked everyone and ended the meeting.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan** Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110** Meeting Date/Time: **04/27/2020 6:00PM – 7:30 PM**

Re: **Steering Committee Meeting #4: Process Analysis /Concept Review**

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### ATTENDEES:

Carl Dickson	Julie Seeds	Rob Gladfelter – SC
Gregg Cook	Joe Sherrick	Mike McGraw – AEC
Deb Everly	Peter Simone - SC	Jessie Buckner - AEC
Josh First	Justin Warren	Pat Fasano - forester
Sarah Leeper - Simone Collins (SC)	Amy Young	
Chris Rebert	Sally Zaino	
	Paula Zankel	

### NOTES:

1. Peter Simone started the meeting and announced that the public meeting will be held remotely through a live event. He explained that SC has held this type of event with good results and the presentation format will follow the same format of what was shown to the committee. Peter S. went over the agenda and the schedule for the completed master plan.
2. Mike McGraw and Jessie Buckner continued the presentation and reviewed the work that Applied Ecological Services has done thus far in the project. Mike M. explained that there is still more site survey work to be completed as some species will not emerge until it is warmer and migration patterns are just gearing up. Mike M. noted that the remaining surveys will be rapid ecosystem surveys due to the specie rich ecology that exist on site and will concentrate on species of interest, such as pollinators. He noted that Mark Embeck has been providing assistance as a citizen by conducting benthic macroinvertebrate studies in site.
3. Mike M. explained that hydrology recommendations will also be included in the report and will note arguments for keeping the pond versus restoring the natural waterway. Jessie B. added that restoration of the waterway could provide opportunities of

reintroducing freshwater mussels. Mike M. noted that any restoration on site will have to be done in stages, but he pointed out that deer browsing is the first priority to address if there is to be any success in restoration. Mike M. stated that AEC will continue to survey the site and share their findings with the committee.

4. Pat Fasano continued the presentation with an update for the forestry management plan. He explained that he worked with Andy Brought (DCNR District Forester) to separate the site's two timber stands into nine separate management plans. Pat F. explained that the report will consist of a 10-year management plan with recommendations for each year and management unit and will provide all collected data and a glossary so that anyone can read. Pat F. noted that he will be working with Mike M. and Jessie B. to assure consistency with recommendations for forest stewardship and ecological restoration.
5. Peter S. stated that the SC team are using the data and recommendations provided by AES and Pat F. to advance the master plan moving forward.
6. Rob Gladfelter continued the presentation by reviewing up to date public opinion survey results and wikimapping data. He noted that the public survey may see a boost in numbers after the next public meeting.
7. Sarah Leeper reviewed where the team was with finalizing the Key Persons interview list. Sarah L. noted that the final list will be sent to the committee and Carl Dickson for final review. Sarah continued the presentation by reviewing the Concept 1, that was shown in the last committee meeting, and Concept 2 to continue the discussion for what will be presented in the public meeting. The following is key points from the discussion of the different areas of the site concept plans.
8. Frankie's Dogleg Meadow (Detweiler Homestead)
  - a. Deb Everly asked how many parking spaces are proposed in this area. Sarah L. noted that 20 spaces are located by the restrooms (converted pool house) and an additional 10 located closer to the entrance. Deb E. expressed concern that if mountain biking is allowed in this area, they may come with vehicles with trailers and the parking would have to address this. Peter S. noted that the site will not be a regional mountain bike facility and would not attract large numbers of cyclist – however as the design is finalized parking could be configured to accommodate trailer if needed.
  - b. Chris Rebert asked if the southern portion of the site was too wet for biking and what impact would it have. Mike M. noted that there are some wet areas and that AEC will be working with the SC team to refine the area to assure preservation of sensitive areas after all data has been gathered. Paula Zankel stated that the southern portion of Frankie's Dogleg Loop is often wet and that a boardwalk is needed in this area.
9. Pine Plantation
  - a. Chris R. stated that he liked the simplified trail system and believes it will assist people who would typically get lost in this space. Mike M. noted that providing proper wayfinding and interpretive signage will added to assist people through the space. Sarah L. noted that in the past the committee had discussed how the

dense planting of pines in this area can create a remote and isolating feel and that clear wayfinding will help to create a more inviting portion of the park.

#### 10. David's Field

- a. Mike M. noted that the two culverts near the confluence of the waterways account for a considerable amount of downstream pool scour and that by providing a boardwalk and removing the culverts will be beneficial to the hydrologic pathways.
- b. Sarah L. noted that trail alignment intent is to reduce impacts to steep slopes and that the SC team will continue to work with AEC to refine placement of the trails.

#### 11. Meade's Mountain – there was no additional comments from the committee for this area.

- a. Sarah L. noted that the streams in this area extend further than state map depict, and that AEC site work indicates larger headwater areas.

#### 12. Air Strip field – Sarah L. presented two concepts with the second concept showing athletic fields that could accommodate tournament play and explained that tournaments typically require four fields.

- a. Chris R. asked Pat F. why the stand of woods west of the meadow (section 9) is separated from the larger wooded areas. Pat F. noted that the area is relatively hydric with springs and headwaters, so it would need to have a different management geared to restoration with no silviculture practices.
- b. Sally Z inquired if we had considered riparian buffers when laying out the concepts. Sarah explained that the plan would provide for at least a 50 to 100-foot riparian buffer in most areas. Mike M. stated that the 100 ft buffer is a gold standard to shoot for.
- c. Sally Z. expressed concern of the number of fields shown in concept 2 and believes that it would add stress to the core meadow area. Peter S. explained that the project scope of work directed the team to explore areas for active recreation – concept 2 depicts the idea of providing for a tournament level facility on the site.
- d. Joe S. noted that having the sports fields would take away from the quiet peaceful space the site is known for.
- e. Deb E. asked if the second concept would be shown at the public meeting and was concerned if it was shown, it may be hard to take back. Peter S. explained that the concept is shown to start a conversation and that the team would look to the committee and public for direction. He explained that showing the concept does not mean that this would be part of the final plan.
- f. Carl D. added that he was approached by interested parties to explore adding fields at the site to gauge public reaction. He noted that the public would help drive the discussion as to how the space should be used.
- g. Peter S. noted that SC seldom recommends the addition of fields without having completed some form of level of demand study – a task not included in

our current scope of work. He noted that often there is a worry that whether or not they are needed sports groups will also say they need more fields; however in our past experience we do not find this to be true and work to create park plans that balance the needs of active sports fields with other park facilities.

- h. Gregg Cook confirmed that there is a current study documenting the need for athletic fields within the County. He stated that the site was looked at for possible sports fields and it was determined that the site not compatible for a tournament level still facility – mainly due to the stress such a facility would put on the local road infrastructure.
  - i. Paula Z. asked about the area for disc golf. Mike M. noted that the area is highly planted with Spruce trees. Joe S. liked the idea of having the disc golf course. Deb E. noted that the activity is not intrusive and allows for the natural area. Sarah L. added that this is a popular use in natural areas and people will travel long distances to play on different courses.
  - j. Peter S. asked for more discussion of the fields. Paula Z. asked Amy Y. to address overbooking of fields in other sites. Amy Y. explained that although overbooking is a problem, she did not believe this site should address those needs. She added that having as many fields as shown in concept 2 would also require additional amenities such as restrooms and concessions. Deb E. stated that showing the fields would drive public reaction for passive use of the site and noted that the survey has already shown that the vast majority do not want fields included in the site. She agreed with Carl D. early statement that the public reaction would help solidify the opinions already expressed in the surveys. Peter S. noted that having a large number of fields would impact the ecology restoration efforts. Mike M. agreed. Peter S. explained that showing concept 1 would show an effort to address more users for the site and that the fields would be more likely used for pick-up games rather than organized sports programming. Paula Z. asked if the ball field and the soccer field could be combined. Peter S. noted that this could be done and that it would increase the size of the core meadow area.
  - k. Deb E. asked about the model airplane club use of the site and the placement shown on the concept. Carl D. noted that the club would like to continue to use the site and added that they would most likely want to park closer to the lift off site, so they do not have to transport the models far. Mike M. suggested that the model airplane site be moved closer to the road and added that there should be parameters for when models can be flown. He noted that the planes may look like large predator birds to other migrating birds which would have an impact to their nesting habits. Joe S noted that the model airplane club would be beneficial stakeholders but agreed there needs to be a set of guidelines for appropriate use.
13. Peter S. reminded the committee that deer culling is needed on site and as everyone is interested with restoring bird habitat, deer browse also has a significant impact. He added that both Mike M. and Pat F. are recommending this and that addressing the deer population should remain on everyone’s mind as to how best to achieve this.
14. Sarah L. asked for closing thoughts.

- a. Amy Y. – likes the idea of keeping it natural and beautiful and asked if it would be better to show several concepts to the public to assist in a decision for additional fields for future population needs. Peter S. noted that county projections are modest but asked if she was in favor for showing more fields. Amy Y. explained that she was surprised to see through the survey that there was not an interest for more active recreation fields and would not want to propose something that the community would not be in support of.
- b. Gregg C. – noted that he preferred the first concept for added fields on the site. He added that having additional sports fields would increase traffic and maintenance costs while reducing the sustainability of the site.
- c. Deb E. – appreciated the work being done thus far. She noted that there will likely be public pushback from the fields but would be willing to see public response once the concepts are shown at the public meeting.
- d. Chris R. – noted that additional amenities bring additional costs for construction and maintenance. He mentioned that he would be interested in discussion of the pond area in the future. He liked the Pine Plantation shown in concept 2, with the idea of nurturing the native white pines. Mike M. noted that white pines are a great native evergreen and that they require management to succeed. Chris R. added that the pines offer more diversity to the site. He added that the site along Clark’s Creek offers opportunity for fishing with ADA access. Peter S. noted that the SC team will be addressing this area more closely as the master plan moves forward.
- e. Joe S. noted that he preferred the first concept for the airstrip field but would like to see the ball field moved away from the core meadow area. He added that he liked the idea of introducing a disc golf course.
- f. Paula Z. – asked if there were any ideas for connections to Bailey’s Grove. Sarah L. noted that the SC team will be looking at the idea more closely as the concept plan is refined. Paula Z. stated that there are steep areas along the northern parcel of Bailey’s Grove. She noted that building use has not been addressed yet. Peter S. explained that the team was not at that stage yet and that programming would help identify future uses of the buildings on the site.
- g. Sally Z. – stated that she would prefer no sports fields to be added to the site but understands the purpose of showing them.
- h. Josh F. – stated that deer management should be left up to onsite hunting and that having sharpshooter hunts organized by the county or state would be expensive. He added that all development of the park should be kept to the outer edges of the site and likes that alternative programming that is being addressed in the concepts. He agreed that guidelines should be set for future use of the site by model airplane club.
- i. Carl D. – thanked everyone for their insight and noted that the Detweiler House is now being rented. Paula Z asked if there will be signs to direct visitors from inadvertently trespassing in private areas. Carl D. stated that the County will investigate providing signs.

15. Peter S. finished the presentation by going over the next steps. It was agreed that a new flyer was needed for the next Public Meeting and that they should also be placed in the park. Peter S. asked that no one share this presentation as concepts will be refined before the public meeting. He thanked everyone for attending and ended the meeting.

This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter

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## MEETING NOTES

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Project:	<b>Detweiler Park Master Site Plan</b>	Project No.:	<b>19060.10</b>
Location:	<b>100 Fort Hunter Road Harrisburg PA 17110</b>	Meeting Date/Time:	<b>05/11/2020 7:00PM – 8:30 PM</b>
Re:	<b>Public Meeting #2: Process Analysis /Concept Review</b>		

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### ATTENDEES:

See Attached Record:

### NOTES:

Simone Collins on behalf of Dauphin County Parks Commission held a Microsoft Teams Live Event to present the site analysis to date and initial concepts to the public. A recording of the presentation can be watched by following the link below.

[Click Here to Watch Meeting](#)

If you need any additional help on watching the meeting, please refer to link below for instructions:

[How to watch a Microsoft Teams Live Event](#)

The following is the record of questions and comment submitted by the public. Order of questions have been revised to group similar comments together. Simone Collins has edited submitted questions for grammar and spelling errors. Moderator (Simone Collins) responses have been revised for clarity. Names have been associated with comments when they were provided.

1. Tim Murphy Soccer fields? My recollection from the Feb meeting was that the suggestion of athletic fields was overwhelmingly rejected by those in attendance. Please explain why soccer fields are still being considered.
  - Bill M. I would reiterate Tim's question: why are we proposing sports fields? It was general sentiment from the group that we forgo sports fields.
  - Moderator SC was tasked with exploring options for both passive and active recreation. We have received input from the Committee and Public leading to the concept plan. The fields would not serve for organized sports but provide opportunity for informal picnic events or pickup games similar to the Fort Hunter field area.
2. Emily R. I do want to voice my opinion strongly against the athletic fields, but if the event lawn and athletic field are moved forward with, what measures will be taken to protect Clarks Creek from flooding and fertilizer runoff, etc. that are associated with these maintained green



areas? Will the maintenance required justify the amount of use they get (there are several such areas nearby, largely underutilized as it is)?

- Moderator Great comment, should open lawn areas be maintained on site the management of lawns would be considered in the overall site management plan; with the goal of limiting resource inputs such as mowing and fertilizer and improving the surrounding habitat and greater watershed health.
3. Bill M. Your proposal is more than "some" amount of active recreation Pete. It's a theme park. Was hoping this place would remain open space with low to moderate density recreation.
- Moderator The concept plan recommends habitat restoration to the majority of the site. The area with fields account for small portion of the site with the goal balancing needs of the community with the restoration of the site. I would disagree with the characterization as a "theme park".
  - Bill M. 3 people agreed with me Pete
    - Moderator There is room for more discussion to ensure natural resources are protected and celebrated as the primary driver at this site. It is clearly the majority public opinion per the surveys and comments thus far. Thank you!
4. Bill M. Way too much going on here. You're cramming 10 pounds of crap into a 5-pound bag. You are fragmenting the park more than it already is. NO to disc golf, extra bike trails, and sports field.
- Moderator We appreciate your opinion. However, respectfully disagree with the overall sentiment. Your feedback regarding the limiting the additional activities to the site will be considered as we move forward in the public process.
5. Joann N An overwhelming majority of survey respondents commented on the need to maintain the peace and tranquility of the space. Is there a plan to filter noise from sports fields, playgrounds, and pavilions to preserve that feature?
- Moderator Due to the size of the site verses the size and level of activities proposed we feel that a majority of the site will be maintained as peaceful and tranquil. As noted in the survey, the tranquil aspects of the site are highly valued however people believed that the site could offer more activities while maintaining that quality.
6. Denise Do you anticipate that some of the pavilions will be available through a rental process?
- Moderator As the masterplan advances more detail on the size, type, and use of pavilions will be provided. Yes, some could be rental.
7. Gary S. Is there a possibility of a limited deer hunting season, so the park is not open to hunting the entire season?
- Moderator: On site hunting is an operational issue and will have to be explored further as the master plan progresses. Moving forward we would like to frame the conversation of hunting in two ways so that people can clearly give their opinions regarding the subject.

Also, following the meeting, we want to be clearer on our use of terms that are used to describe how to control site deer populations and the options that exist.

The term "Cull" or "Controlled Hunt" will be used to describe an organized and scheduled activity whose purpose is to locate and significantly reduce the population of deer for the purpose of forest management. The date of the cull will be widely published. The park would then be closed to the public when a cull takes place and the persons authorized to participate in the cull would be license and approved by the County. Persons not authorized to participate in the cull will be turned away. The disposition of deer harvested during a cull would be decided by County Officials; often meet is donated to local food banks.

The term "Hunting" will be used to describe the public use of Detweiler park to engage in activities regulated by the Pennsylvania Game Commission. The park would remain open. Dates, weapons allowed for hunting, and authorized hunting zones would be widely published to ensure the safety of park-goers. The hunter can claim disposition of animals harvested during a hunt.

8. Larry W: Disc golf has really fallen off as an outside activity, do you really want to dedicate space for this?
- Moderator A limited area has been shown for disc golf. It was shown on the concept plan to provide an additional recreational opportunity for the site and due to the low impact nature of the activity. This activity is generally considered compatible with passive uses. You feedback it will be considered with other input moving forward.
  - Brent S. Disagree about the disc golf course comment, but that's ok, we're allowed to disagree! Would you consider extending the area for the potential disc golf course to exceed the ~2 acres potentially allotted? I don't think 2 acres would suffice for an even a good nine-hole course.
    - Moderator The concept proposes a 9-hole disc golf in an area roughly 10-acre in size. Standards recommend 4-5 acres for a 9-hole course.
  - Denise Larry - I'm not sure your statement is true. I know several people that still actively play disc golf.
    - Moderator Thank you for your comment.
9. Attendee: What will you do about the invasive species? Thanks for the presentation.
- Moderator The invasive species management plan will be quite complex. This is the big site ecological challenge and also poses some of the best opportunities to restore native ecosystems while supporting our native wildlife and plants! It will take many years and involve professionals and volunteers alike but will be most worth it!
10. Don What will be the impact on the fish hatchery, the DCAC ?
- Moderator Our watershed restoration plans will improve fish habitat and our intention is to not impact the hatchery at all, apart from improving water quality in the watershed. This is an amazing resource worth retaining.

Moving forward we will develop more detail recommendations for facilities at the fish hatchery that compliments their programs. We envision making positive improvements to accessibility, opportunities for kids, and general access.

11. Larry W Will some of these trails work for cross country skiing ?
- Moderator Yes, having ADA compliant trails and access points / parking will provide opportunities for winter trail use to better accommodate cross country skiing. The trail system would have appeal for beginners through experts.
12. Tom Leonard How long would the circumference Pine Trail be? the cut through trails?
- Moderator The circumference trail is roughly 1 to 1.5 miles long. As the concept plan evolves into a draft plan, we will provide distances for trails and loops.
13. Anonymous (Unverified) With regards to mountain bikes: What erosion controls do you propose since this area contains an array of small streams that feed into Clark's Creek.
- Moderator Erosion / stormwater control along all trails (not just mountain biking trails) is achieved through proper trail design and construction. Examples of good trail design includes switchbacks, running trails parallel to the slope, proper trail cross slopes, trail dips, and water bars. The area mountain biking community are great advocates for proper trail design and often will assist in the design, construction, and maintenance of trails throughout the Harrisburg region.
14. Mike Who has been consulted on the proposed mountain bike trail layout? How much is proposed to overlay onto existing double track vs newly created single track? I didn't catch it, is there consideration or discussion for a pump track, skills area, or mountain bike playground to this point?
- Moderator As a starting point for public discussion of Mountain Biking on site the trail layout is conceptual. SC has worked on layout of trails in prior projects. Should Mounting Biking be recommended in the master plan; layout for the trail alignments would be determined during the development of construction documents.  
  
The network of mountain bike trails that are being shown will not attract a regional user group but serve as a local amenity.  
  
The site has some rare forest-breeding songbirds including a protected species. We will need to marry the spatial needs of these species with mountain biking opportunities to be compliant with critical habitat for particular birds and work from there after that regulatory layer is satisfied. As Peter mentioned, these finer-tuned efforts for siting of trails will need to be worked out in later phases
  - Mike I'm understanding the trail layout plan more clearly thanks to some of your answers already.
  - Mike I don't quite understand the comment about it needing to be a destination to be appropriate for a pump track- could you explain more? Most pump tracks support and are used by the local community. Kite flying, disc golf, remote control planes, picnic groves, the trails, and open sport fields as they've been described are all for attracting

and providing service to locals. Why would a pump track need to be co-located to a mountain bike destination location?

- Moderator Sorry, we did not intent to imply that a pump tract would need a regional draw; we agree this is often a local amenity. Tonight, is the first time we have heard this suggestion and we will explore this idea moving forward.

15. Chris S I f not already addressed, you mentioned trail contractors. For the Mountain biking trails, are you planning on taking advantage of SAMBA the local IMBA chapter who has expertise in designing and building mountain bike trails at no cost that can also be used for walking?

- Moderator Currently the trails are a conceptual idea. Samba has been identified as a potential project partner. The County has a working relationship with Samba on other projects. Should Mounting Biking be recommended in the master plan; Samba would be a key partner in the process.

16. Bill M. Isn't there any concern with mountain bikers zooming past and possibly hitting the hikers. Especially if we are making this ADA accessible. Would hate to see a crash with someone on a wheelchair and a mountain bike. I'm surprised the mountain bikers would want this situation.

- This question was asked as Q&A was ended and no verbal response was provided.  
Trail hierarchy of user groups to avoid conflicts are key components of a trail plan. Trails with more than one user group in this case mountain biking and hiking are signed so that mountain bikers are required to yield to hikers.  
Though we are working to design ADA accessible trail network throughout the site this does not mean wheelchair bound persons would have access to the area of proposed mountain biking trails. ADA guidelines encompass trail design for all ranges of disabilities not just limited mobility.

17. Attendee Awesome; thx Sarah nice. Will you have a blue/red ribbon ceremony? Love the naturalist concept :) What is the projection date or goal by chance for this if any? So nice - Will there be lanes for hiking/bike trails similar to out west i.e. Oregon, WA State. Not to create more work but sometimes cyclist, mtn riders and hikers/runners/walkers do not always mix well on one main lane and do not follow the rules.

- Moderator IMBA has Mountain bike etiquette guidelines, but education is key. Moving ahead we will provide more detail on trail hierarchy; width, and surface material for public comments.

18. Tim Murphy At the Feb meeting there was mention of night sky viewing. Where would that be accommodated? Perhaps at the proposed events lawn, although it looks like light from road would have to be shielded.

- Moderator Moving forward we will further develop potential program activities for public input. The events lawn could be used for night sky viewing or the overlook platforms in the eastern or secrete meadow also provide opportunities away from roadways.

19. Anonymous Can part of the meadow be made useful to fly kites?

- Moderator The event lawn is large enough to accommodate this use. The grassland restoration areas may be seasonally curtailed from these sorts of activities to prevent breeding bird disruption. This will be a great space for flying kites provided certain locational and seasonal restrictions are implemented to share the land with wildlife.
20. Anonymous I didn't know there was a public online survey until now. How is it being publicized?
- Anne W I wasn't aware of the online public survey until now. How could it be better publicized?
  - Moderator We are coordinating with the County to more widely publish the link. It can currently be found on the County Website.
  - Anonymous Thanks! I will share it widely!
21. Kara W The future trail connection to Bailey's Grove crosses 2 private lanes (Stricker Ln and Stroup Ln) that are maintained by private property owners. Does this have to cross at this point?
- Moderator Thank you for the information regarding the nature of those lanes / driveways. The trail location is conceptual at this level - if plans to connect the two sites moves forward it is likely easements would be required; We will be exploring more closely the best crossing location.
22. Cory What is the purpose of an orchard/ permaculture area?
- Moderator The use builds on the historic site use of gardening and an orchard in this area. There are myriad benefits of having this type of food production strategy near the parking area as both a demonstration for landowners as well as to provide forage and/or a local food source for cropshare, local schools, homeless shelters, etc. Great opportunities here!
  - Cory I'll reply in more detail via email, but although I think in theory this is a lovely idea, I don't think there is enough interest or time in most modern lives to devote the time needed to this type of feature. There is a reason it is no longer an orchard or garden lol, they are very labor intensive. Especially for a public space. Fluff
  - Moderator Fair comment. We look forward to additional feedback to understand what if any level would make this worth investing in and determining if there is public support for this site use.
23. Cory Also- will "softening" of the woodland edges be a combination of successional growth and planting/ controlling invasives? Explain more please.
- Moderator Yes, softening edges can control wind and other external pressures into interior wood areas. some birds prefer this type of edges. controlling edges and managing is important.
  - Cory Thanks Mike!
24. Anonymous Invasive plants need to be removed immediately especially tree of heaven stands as well as stands of Bamboo planed by the members of the DCAC

- Moderator Agreed! We have triage-level invasive species management as well as longer-term plans. These are very problematic species that are included in the first phases of invasive species management. In fact, we are recommending bamboo and certain colonies of other invasive plants be managed before we are even completed with the plan (ASAP!) Great comment.
25. Sally Are you planning any restoration on the small triangular area south of Clark's Valley Road at 225?
- Moderator Moving forward this area will be addressed as we develop our restoration recommendations.
26. Anonymous How to you plan on handling ADA access on the steeper section of trails?
- Moderator Though we are working to design a ADA accessible trail network throughout the site this does mean that all ability levels will have access to all trails. The ADA guidelines encompass trail design for all ranges of disabilities we will work to provide as much access within the guidelines as possible. Trail signage will play a key role in identifying to users to difficulty of the trail such as surface contains, and steep slopes.
27. Richard How much effort has been done on surveys of existing traffic on adjacent highways? These are some of the most intensely used high speed highways in northern Dauphin County. It is almost guaranteed that any impediment to traffic flow would be badly regarded by the public in the extreme! How would you expect pedestrians to cross Route 225 halfway up the mountain?
- Moderator A formal traffic study is outside of the scope of a master plan study and would often not be required for a land development of this type due to the nature of the facility being proposed. We will be meeting with PennDOT to review the safety of proposed driveway entrances. We are assuming, at a minimum, we will need to provide acceleration and deceleration lanes to allow for safe site entry and departure. PennDOT will also provide guidance on placement of the flashing beacon pedestrian crosswalks.
28. David Would there be an area for archery target area?
- Stony Boy Is there any consideration of placing an archery range on the site?
  - Moderator To date this use has not been considered for the site however we will take your comments into consideration moving forward.
29. Becki I came in a bit late and don't know if you addressed this, but I'm sure there is a plan for the Detweiler House in the park by the pond. I have heard it might be a visitor center and if so, will there be a parking area there as well to access the trails?
- Moderator The concept plan does proposed parking in this area of the site. Currently the house is rented as a home. However, when the County renovated the house, first-floor accommodations were made so that the house could potentially serve as a public building. The master plan will consider what public uses such as a nature center would be appropriate for the structure.
30. Anonymous Will there be an area for organized activities such as Zumba or yoga classes?

- Moderator The possibility of offering indoor classes as a reuse of the Hanger structure have been discussed. Additionally, the event lawn could accommodate these uses outdoors.
31. Becki Since the stay at home order and nicer weather, I have been using the park quite frequently and am loving the trails! Thank you for the work done to maintain the trails and make the park a great place to walk/hike.
32. Denise Thanks for this virtual meeting and the willingness to address all the questions. I'm happy to hear discussion will continue to weigh all viewpoints! Hoping for an in-person meeting in September.
33. Mark E. Thanks, Mike, for the shutout and the watershed comment.
- Moderator Thanks so much for sharing your expertise and passion for the site!!!!!!
34. Gary S. Thanks for the opportunity to offer our input. We are in the park 4-5 times a week and appreciate the chance to express our feelings on this park.
35. Attendee Thanks for this preview & public mtg. Have a wonderful night!

Pete S. ended the meeting and encouraged people to contact us with any additional questions and comments and to stay involved in the master plan process:

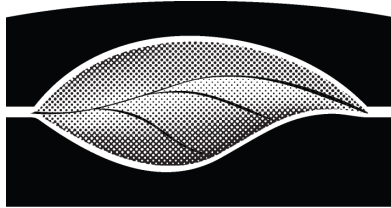
- Out next meeting is Sep 21st, 2020; to receive announcements for upcoming meeting please send your email to Rob Gladfelter at [rgladfelter@simonecollins.com](mailto:rgladfelter@simonecollins.com).
- To take the online survey please go to <https://www.surveymonkey.com/r/DetweilerPark>
- To provide feedback on WikiMap please go to <https://wikimapping.com/detweiler-park-master-plan.html>

This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Sarah Leeper, RLA  
Project Manager



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan** Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110** Meeting Date/Time: **06/22/2020 6:00PM – 7:30 PM**

Virtual – Teams

Re: **Steering Committee Meeting #5: Concept Refinement**

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### ATTENDEES:

Carl Dickson	Chris Rebert	Sally Zaino
Deb Everly	Julie Seeds	Paula Zankel
Sarah Leeper -	Joe Sherrick	Andy Bought
Simone Collins (SC)	Peter Simone - SC	Rob Gladfelter – SC
	Amy Young	

### NOTES:

1. Peter Simone started the meeting by going over the agenda for the presentation. He noted that a discussion regarding future meetings formats and locations will be held at the end of the presentation.
2. Sarah Leeper reviewed the draft project goals and objective statement. She noted that the presentation statement had been revised from the agenda's statement version. She discussed the 2<sup>nd</sup> public meeting and current survey results. Sarah L. noted that the survey trends had not changed significantly since the last public meeting. A link was provided to the committee to review the results and read comments. Peter S. asked that the survey link not be shared outside the committee yet. He noted that the all results and comments will be included in the draft plan report once SC has had a chance to review them and redact person information provided in comments.
3. Rob Gladfelter continued the presentation with a review of wiki-mapping comments and noted that one new comment had suggested having area schools use the park for research. Rob G. then discussed the regional site analysis. He noted that the analysis can should inform park programming and help define how the park fits within the Dauphin County Park System.
4. Sarah L. discussed the updated site analysis that included AES "drop point" (site specific) information, more defined steep slopes, and detailed hydrological



information. She noted that the evolving site analysis continues to inform team decisions as the concept plan is refined. Sarah L. showed the overall refined concept plan and reviewed each of the seven site areas in detail. The following is the discussion by area:

5. Conservation District

- a. Julie Seeds expressed concern of removing the proposed parking from the previous concept. She noted that the 108 estimated existing spaces should consider the parking of DCCD vehicles that are housed on site. She noted that the parking lot is full at times. Peter S. noted that there are additional parking areas proposed in other areas of the site. In the future, if parking is an issue, the previously proposed new parking location could be considered. The master plan narrative should note this.
- b. Andy Bought stated that he would not like to see any more impervious surface in the area of the Conservation District Offices or additional fragmentation of the forest canopy. He noted that Eric Naguski could provide better numbers for parking usage at the Conservation District Offices.
- c. Paula Zankel stated that the parking would not have to be impervious. Sarah L. noted that any parking area would have associated BMP to handle stormwater and noted that porous pavement BMPs can be costly. Peter S. also noted that additional costs associated with maintaining a porous pavement should be considered.
- d. Paula Z. asked if the team is recommending the removal of the pond. Peter S. noted that the pond removal concept had been reviewed at the last committee meeting and public meeting and had been well received. Sarah L. noted that the dam removal does reflect recommendations from AES and will increase habitat as well as lower water temperatures; a direct benefit to Clarks Creek. Sarah L. noted that AES has observed wetland areas along the western pond edge. Sarah explained that the dam removal would require permitting that would address the staged drawdown of the pond, animal relocation (as required), removal of the dam and restoration plantings. The process is typically completed in a single construction season.
- e. Sally Zaino noted that she was in favor of the dam removal; several other committee members agreed.

6. Frankie's Dogleg Meadow (Detweiler Homestead)

- a. Joe Sherrick stated that he liked the new access driveway located opposite from the fish hatchery entry drive.
- b. Andy B. stated that he did not like the new trail along the east side of the area. He believes that it would fragment habitat and introduce invasives along the edges. Sarah L. explained that the trail would be a single-track hiking trail to reduce environmental impacts and is in place for future connections to Bailey's Grove. Andy agreed that if implemented a single-track hiking trail would be best.

- c. Andy B. asked if the all trails would be open to mountain biking. Sarah L. noted that mountain biking was not being recommended in the southern area of the park. She noted that the concept does recommend a multi-purpose trail with emphasis on accessibility for handicapped, baby strollers, pedestrians, runners, and families that might include young children on bikes. Andy expressed concern of mountain bikes and pedestrians not working well on these trails. Peter S. stated that the multi-purpose trails are not for mountain biking but noted that some mountain bike riders may use the trail to access the mountain bike trails on Meade's Mountain. Peter S. stated that these trails will have to be self-enforced to assure that all users feel safe on the trails.
  - d. Sarah L. asked if there were any other comments in this area. Both Andy B. and Sally Z. noted that they liked the plan for the area.
7. Clarks Creek – Dauphin County Anglers & Conservationists / pull off at intersection of Clarks Valley Rd and Peters Mountain Rd
- a. Joe S. stated that he liked all the suggestions concerning the Anglers & Conservationists area. He noted that the erosion issues below the parking area was a known issue that they would like to address. He noted that the concrete fishing piers were built in the 70's and are ready to be replaced.
  - b. Joe S. stated that he was in the process of working with a local eagle scout to clean up and repair the trail edging in this area. He noted that the area had become overgrown but had not considered removing the parking area and fishing trail. Peter S. questioned if access at this spot is critical; is it a desirable place to fish. Joe added that he was willing to keep an open mind to losing this area to parking.
  - c. It was noted that this area parking is not just used for fishing access; cyclist, trash pickup volunteers, and utility companies all use the area. It was noted that the fish hatchery, proposed parking at Frankie's Dogleg Meadow, and Bailey's Grove would easily replace the loss of this parking.
  - d. Sally Z. reviewed the regional planning strategy of preserving land in this area to buffer Clarks Creek. She noted that this piece of land presents a key opportunity to treat roadway runoff prior to entering the creek. She also noted safety concerns about the informal parking area being located so close to the intersection. Peter S. agreed with this concern and added that a loss of 5 parking spaces in this area would not impact access to the overall park.
  - e. Sarah L. noted that a restored landscape with the addition of park signage the area would serve as a gateway into the Park.
8. Pine Plantation
- a. Andy asked if enclosure is the same as deer fencing and that deer fencing can be costly. Sarah noted that this was still in thought process. Peter S. noted that deer culling, and controls need to be in place otherwise any investment in reforestation would be a waste of money. Andy B. suggested having a mix of deer hunting and deer enclosures. He added that the park could be open to hunting for two weeks but will leave this decision up to the committee. Peter S. stated that this should be refer to as culling for safety reasons and that no one

gets the impression that anyone can hunt on the site. He added that this would have to be managed and controlled. Andy B. agreed and noted that he could provide examples to SC for review.

- b. Joe S. asked about how the trail would connect to Bailey's Grove. Sarah L. explained that Rows could be used and that there may be need for easements in some areas. Sally Z questioned why there was a need for a connection to Bailey's Grove. Sarah L. explained that it is always good to try to make regional connections. Peter S. asked if there was any downside to this connection. Sally Z. responded that there was no downside but wondered if it would be used. Peter S. noted that the team would research this area more.

#### 9. David's Field

- a. Andy B. asked if there was a need to remove the stream culverts. Sarah L. noted that this was an AES recommendation to improve stream morphology. (it was also noted by Mike McGraw in committee meeting 4) Sarah L. explained by removing and moving trails in this area would benefit in restoring the riparian edges to the stream.
- b. Andy B. asked if there were any management plans for the meadows. Sarah L. noted that the plan was not at that point yet and AES would be providing this information in their report. Andy B. noted that there could be an opportunity for the Game Commission to assist with prescribed burns.
- c. Chris Rebert noted that the top of the meadow would also provide a great spot for a meadow overlook and hawk observation point. Sarah L. agreed and noted that there could be meadow overlooks at both sides of the meadow.

#### 10. Meade's Mountain

- a. Sally Z. expressed concern that usage of the one-way single-track mountain bike trail would disturb bird habitat. Sarah noted that conversations with AES has not identified this as a problem. Peter S. added that this brings up the philosophical question of whether to close the site off to all people to preserve all parts or do we provide limited programming to accommodate different users to the park. He added that the mountain bike trail system is not very long and could not imagine it getting a lot of use. Sally Z. noted that this area may be the only area on the site that would have an ecology beneficial to some species of birds, particularly to Cerulean Warblers.
- b. Joe S. asked if it made sense to have a mountain bike trail if it were only about 3 miles long. Pete S. noted that we would anticipate feedback on this during the public review period. Sarah L. stated that responses to the survey shows that some people are already biking on the site.
- c. Andy B. stated that he shared the same concerns as Sally Z. and believes the trail would fragment unique forest ecology, disturb bird habitat, and expressed concerns for rattle snakes in the area. Rob G. noted that conversations with AES had explained that there are likely snakes moving through the area, but likely it is not a large nesting area. Joe S. noted that rattle snakes have been observed everywhere and that they could be anywhere. Andy B. stated that he believes that rattlesnakes and copperheads could have dens in the upper part

of Meade's Mountain and that trying to place a trail in this rocky area would be difficult. Rob G. explained that the one-way trail would likely only be used by experienced mountain bike riders and hikers.

11. Air Strip field – a separate conversation about HAFS flying club on site followed

- a. Andy B. stated that having two playgrounds on site was too many. Peter S. noted that the playground would be integrated within the environment and would be a space for children to come and appreciate the ecology of the site. Rob G. stated that this area would likely be the most active area on the site if programming allowed for events. Peter S. noted that Pat Stasio believes that the hanger has a lot of potential to be a space for different events such as community art shows, small festivals, etc. Andy B. stated that he did not like the idea of having any space as an active area and that the site should be kept completely natural. Sarah L. noted that having two areas with more activity will assure that one area does not become overburdened and that it will keep any activity in smaller areas. Peter S. stated that the two active areas are relatively small considering that most of the site will remain in a natural state. Paula Z. stated that the public would provide better guidance to whether there should be two playgrounds. Joe S. stated that both playgrounds are essential to provide activity for all ages. Chris R. agreed with Joe S.
  - b. HAFS – Sarah L. presented the committee 3 possibilities for model plan flying. The first option showed the current size of the runway. The second option showed a smaller runway, and the last option showed no runway. Joe S. stated that he would like to see HAFS removed from the site, but if he had to compromise, he would go with the second option. Both Andy B. and Deb Everly agreed. Peter S. noted that it seemed the committee was in agreement with removing HAFS from the site but noted that there could be an interim period to let the club use the site until they can find a home and while the meadows start to get established. He explained that establishing the meadows will be costly and will take time.
  - c. Sarah L. noted that currently the fields are being hayed but noticed that thistle was becoming more abundant and asked if there should be some type of invasive control until the meadow implementation is started. Andy B. stated that he believed that mowing for hay should not be occurring. Sarah L. explained that mowing keeps invasives under control until a meadow can be established. Andy B. stated that mowing was currently happening at the wrong time. Chris R. added that chemicals should not be used since it could impact the native plants and biodiversity that is starting to get established within the fields. Peter S. stated that he would ask AES for interim management for the fields until the meadow planting is implemented. He added that once AES provides SC with their report, he will make sure to share it with the committee.
12. Sarah L. noted that how future meetings will be held are under consideration and that a poll will be sent to the committee to get their thoughts. Peter S. stated that the future meetings should be considerate of everyone's comfort level during Covid-19 social distancing. *This will be sent out in Mid-August.*
13. Peter S. asked for closing thoughts.

- a. Amy Y. – expressed that the SC team is doing a great job and that she liked the direction the concept plan was moving to.
- b. Sally Z. thanked the team and liked how the plan was evolving
- c. Paula Z. thinks the plan was on the right path
- d. Joe S. believed this concept was the best version so far.
- e. Deb E. agreed with everyone and added that the PA Game Commission should be added to the key persons interview. She stated that she did not know the last three names on the list. Sarah L. explained that they were neighboring property owners.
- f. Andy B. thanked everyone for listening to his opinions and expressed appreciation of the revised plan. He asked that Mike McGraw be part of the next committee meeting. Peter S. stated that he will be.
- g. Chris R. thought the team was doing a great job and added that the park manager of Little Buffalo State Park be considered as a key person interview.

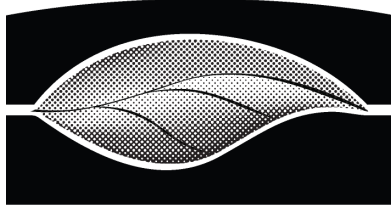
14. Peter S. thanked everyone for a constructive discussion and ended the meeting.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan**

Project No.: **19060.10**

Location: **Virtual – Teams**

Meeting Date/  
Time: **09/14/2020  
6:00PM – 7:45 PM**

Re: **Steering Committee Meeting  
#6: Draft Plan Review**

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### ATTENDEES:

Carl Dickson  
Deb Everly  
Sarah Leeper -  
Simone Collins  
(SC)

Chris Rebert  
Julie Seeds  
Gregg Cook  
Peter Simone -SC  
Amy Young

Sally Zaino  
Paula Zankel  
Andy Bought  
Rob Gladfelter –  
SC

Mike McGraw- AES  
Patrick Fasano -  
Comprehensive  
Land Services

### NOTES:

1. Rob Gladfelter started the meeting by going over the agenda for the presentation. He updated the committee on public input, reviewing key persons interviews , online survey and wikimapping results.
2. Sarah Leeper presented the draft master plan reviewing each area in detail. The following is the discussion by areas:
3. Conservation District – No comments were given
4. Frankie’s Dogleg Meadow (Detweiler Homestead)
  - a. Paula Z. asked where the idea for the food forest come from – Rob G noted that this idea started from the first public meeting noting that it has been incorporated in the previous concepts. It had been represented symbolically by a grid of trees resembling an orchard, the draft plan illustrates a conceptual layout for the food forest.
  - b. Andy B. asked if the existing driveway to the Detweiler House would remain. Sarah explained that the drive would remain to allow for renter use only until the County uses the building for other programming at which then it would be used as a service drive only. The new driveway would provide for public access to this area.
5. E.J Stackpole Memorial Hatchery & Fishing Area

- a. I was asked if the property extended to the southern bank of the creek. Sarah confirmed that the northern bank was the property line, noting the property lines had been removed for clarity of site improvements..
6. Forest Restoration Area (previously referred to as the Pine Plantation)
- a. Mike M. noted that the AES report provides additional detail and support for deer enclosure of the area. He noted that by excluding the deer in this area there will be immediate benefits to understory restoration efforts and stormwater management. He stated that as the woodland is selectively thinned to support restoration efforts, there could be possibilities to market the timber.
  - b. Sally Z. asked for more explanation of how the gates, fence, and trails interact. Sarah noted the four gate locations and noted that once inside the fenced area, a person can walk the mile-long loop trail and supplemental trails without having to go through another gate. Paula Z. asked about the gates and how would they work. Pete S. explained that the gates would be self-closing to decrease the possibility of gates being accidentally left open. Andy B. noted that having the fence on the inside of the main path would eliminate the need of gates. Pete S. agreed and stated that how best to manage public access to the area should be further discussed during design of the restoration effort. Mike M. added that just two deer can do massive damage to the forest floor within a short period of time and that it would be important to keep deer out of the restoration area for an extended period of time (10 years or more).
  - c. Paula Z. asked how users would access David's Meadow if the trail access in the north east corner is being eliminated. Sarah noted that the access to David's Meadow would still be maintained on the west side of David's Meadow. She noted that by rerouting this portion of the trail it removes trail section that is run along residential property lines while simplify the trail network in the area. Andy B. noted this lengthens walk to get to David's Meadow. Sarah noted that the distance from the new drive and walking along the west side is not any longer than the current walk. Sally Z. stated that although she has enjoyed walking on that portion of the trail, she agrees with relocating it away from residential backyards and that the trail passing through the woods offers a different experience. Carl D. added that the new trail system assists in breaking up the larger park into smaller spaces, which in return creates more unique spaces on the site. He added that it is important to understand that this park is a public park and not just a forest, and that the potential for education programs in this area will foster public interests of forest restoration process.
  - d. Paula Z. asked why the trail along the central stream corridor was remove from the plan. Sarah explained that AES field work identified the need to protect this portion of the stream corridor, due to contributing storm water from the forest area and steep slopes along the stream bank the greater need here was to reinforce the riparian buffer. The team determined that there were other areas that would provide visitors with next to water experiences, and that construction of new trail in this area was not supportive of the overall plan goals.

## 7. David's Meadow

- a. Paula Z. noted that the area lacked seating. Sarah explained that seating was included in the cost estimates and would be addressed in the report narrative, but due to the scale of the plan exact locations for seating are not called out on the master plan graphic.

## 8. Meade's Mountain

- a. Mike M. discussed that the area is suffering from deer pressure that are suppressing young growth and decreasing biodiversity of the area. He noted that there are a headwaters springs and wetland in the area, and that noting the location of water is difficult due the movement under boulder fields. He noted that some unique insect species have been noted in the area. He noted that the plan recommends limiting disturbance in the central forest area. Sally Z. added that she liked the idea of defining a water resource area within the central core of the forest.
- b. Sarah L. noted that SAMBA has expressed that the region was lacking space for beginner mountain bike users, and that the proposed trails in this area would help fill this niche. Pete S. stated that with the small amount of trail for mountain biking, that the site would not be regional amenity. He noted that SC would share a recent report on mountain biking and its effects on environment in comparison to other trail users.
- c. Carl D. stated that he liked the refinements that had been made to simplify the trail systems in this area.

## 9. Airfield Meadow

- a. Mike M. noted the wetland restoration area along the western edge is low hanging fruit since the area vegetation is indicative of a wetland ant that there. He noted that minor adjustments to the waterway would address erosion issues while creating a well-functioning wetland. The close proximity of the wetland to the core recreation area offers up close viewing opportunities and interpretive opportunities. He added that the relationship between the wetland and proposed meadow edge will create unique bird habitat.
- b. Carl D. stated that Peters Mountain Road would mostly likely not require an acceleration lane and that the depicted configuration of turning lane and deceleration lane were appropriate. Pete S. noted that the final driveway configuration would be determined in the future during design and engineering and be based on traffic studies and PennDOT review.
- c. Andy B. asked if the committee has come to a conscious on the HAFS flying area and he noted it was his preference that it not be incorporated into the plan. Paula Z. asked if the County was still evaluating model airplane use and mentioned that she was on site when someone was flying a model plane and was surprised that she did not find it overly noisy or disruptive. Carl D. stated the current use by HAFS is via a year to year lease. Pete S. noted that the recommendations in this area may take multiple years to complete and that HAFS use of the space could continue as is in that time period. He suggested that the County may consider implementing recommendations concerning



restrictions to flying during bird nesting seasons. Pete S. noted that as the plan is implemented, HAFS use should be evaluated by the County to determine if the use continues to be compatible with the site goals.

10. Rob G. continued the presentation with discussions on trail types, hierarchy, and proper wayfinding signs. He then described regional connections and finished the presentation by going over next steps and details concerning the next public meeting.

11. Peter S. asked for closing thoughts.

- a. Paula Z. asked if the report will have more information to read. Pete S. stated that the draft plan report will include the plan graphics as well of the supporting report text outlining the process and recommendations and supporting reports from Applied Ecological Services and Comprehensive Land Services. He explained that the report is still a draft and that comments from the committee, public and DCNR may lead to changes to the plan and recommendations. Pat F. noted that confirmation that forestry report was currently being reviewed by DCNR. Paula Z. stated that she thinks it is a very nice plan.
- b. Carl D. stated the plan works with the need for balanced programming for park users and habitat restoration. He added that he had a recent conversation with Esme Freedman and noted that she was very happy with the plan direction. Carl explained that the next meeting was for the public to provide comment and asked that the committee members withhold on commenting during the meeting.
- c. Sally Z. stated that she is happy with the final direction to plan has taken..
- d. Deb E. noted that there was a lot of information presented and would need time to review everything.
- e. Mike M. noted that the meadows are easily implemented and relatively low-cost project that would create some of the largest changes to the site.

12. Pete S. noted that SC would provide Carl D. with price estimates before presenting them to the public. He explained that it was a large site with significant recommendations being made for both facilities and restoration and that cost for improvements would be phased over 15 to 20 years.

13. Peter S. thanked everyone for a constructive discussion and ended the meeting.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter

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## MEETING NOTES

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Project:	<b>Detweiler Park Master Site Plan</b>	Project No.:	<b>19060.10</b>
Location:	<b>100 Fort Hunter Road Harrisburg PA 17110</b> <b>Virtual Meeting</b>	Meeting Date/Time:	<b>09/21/2020</b> <b>7:00PM – 8:30 PM</b>
Re:	<b>Public Meeting #3: Draft Plan</b>		

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### ATTENDEES:

See Attached Record:

### NOTES:

Simone Collins on behalf of Dauphin County Parks and Recreation held a Microsoft Teams Live Event to present the Detweiler Park draft master plan to the public. A recording of the presentation can be watched by following the link below.

[Click Here to Watch Meeting](#)

If you need any additional help on watching the meeting, please refer to link below for instructions:

[How to watch a Microsoft Teams Live Event](#)

Prior to the meeting, SC and Dauphin County Parks and Recreation held an open house from 4 – 6 PM at the open-air Stone Stable in Fort Hunter Park. Following State Covid-19 guidelines, visitors were welcomed to view the draft master plan and speak with the SC team to address any questions.

The following is the record of questions and comments submitted by the public during the virtual live event. Order of questions have been revised to group similar comments together. Simone Collins has edited submitted questions for grammar and spelling errors. Moderator (Simone Collins) responses have been revised for clarity. Names have been associated with comments when they were provided.

1. Anonymous – Please identify what was stated as Federal/State support for Deer management. What and how?
  - Moderator – the plan does not specify any specific programs, but deer management is an important part of any restoration of habitat on site. This can be done through a number of ways such as the deer enclosure proposed in the forest restoration area or through deer culling. Deer culling or controlled hunting can be administered by the County. This has been done successfully by other municipalities and parks. The County can consult with the PA Game Commission and other knowledgeable agencies to set up programs for wildlife management.

- Anonymous – Will the deer exclusion fence have gates for access and how do you keep careless people from leaving them open?
  - Moderator – there will be gates and these gates will have self-closing mechanisms
2. Tim - I understand and agree with the need to establish a transition from meadow to forest, but it is imperative that the panoramic views of the mountains and gap to the south be kept accessible from the high points of the meadow trails.
    - Moderator - Agreed the reforestation area would be used to frame and reinforce the current views.
  3. Tim - Regarding the stream channel erosion, there may be a link to the lack of understory vegetation in the forest, & increased runoff from the area. Please address the opportunity to reduce forest land runoff & erosion with improved vegetative growth.
    - Mike McGraw – Agreed, this comment drives to the point of the overpopulation of deer where deer browse has removed any successional growth on the forest floor. By establishing a vegetated riparian zone with native plants and seeds, this would greatly improve stormwater conveyance on the site.
  4. Tim - Ecological purity aside, open water is a magnet for people. There is a value in maintaining some open water as a visually appealing resource. I wonder what other members of the public think about the proposal to eliminate the pond.
    - Moderator – this has been a topic of discussion throughout the master planning process and we welcome continued feedback. The idea is to have more habitat and reduce maintenance. We considered this area for fishing but there was not much interest because the Clarks Creek area meets this need.
    - Mike McGraw – removing the dam and pond is based on sound ecological values. However, removing the dam does not mean removing all ponding water since this is important not only to stormwater management, but to some of the species that depend on some open water area. The final configuration of open water areas would be developed during design and engineering and would be based on soils and habitat types.
  5. Tim - With 400 acres in the park, why would we want primitive campsites so close to Peters Mtn Rd? Or do we want campsites at all?
    - Denise - How are those campsites monitored? I can see use of them by local youth if not well monitored.
    - Moderator – Agreed, if camping was developed in the future, they would have to be monitored.
    - Sarah Leeper – the idea for the campsites is to provide for that use for someone who may be hiking regional trails. This might also provide AT hikers. Campsites should be considered once suggested regional trail connections had been completed.
    - Peter Simone – the County does have camping at another County Park, so policies for management are in place. One recommendation of the plan is to add a full time Park Manager and that person could provide monitoring of the camp sites. The potential exists for the Peters Mountain Farmhouse to serve as housing for a park manager which is in close proximity to where the camp sites might be located.
  6. Tim - Great photos! Will they be in the draft plan?
    - Moderator – thank you and yes

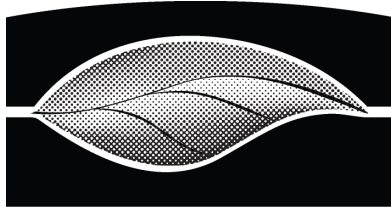
7. Anonymous - Could you elaborate on the crosswalks on Clarks Valley and Peter Mt Roads? I have serious doubts that a flashing light will slow cars on either of those roads.
  - Tim - Would the lighted crosswalk be similar to the new crossing on the Hbg Greenbelt?
  - Anonymous –Rapid flasher at Front & Vaughn (*above comment location*)
  - Moderator – PennDOT owns both these roads and would need to approve improvements at either location. Safety is a big concern and any improvements will have to consider both vehicular access and pedestrians for safety concerns. Also, there is no pedestrian crossing recommended on Peters Mountain Road.
8. Richard - Given the southern exposure and global warming, skiing on site is doubtful, but I thought I heard skiing mentioned in connection with stone dust trails. That is not a good mix. What about wood chip trails?
  - Moderator – cross-country skiing was mentioned. If it does snow, this could be a possible winter recreation opportunity especially in the flat areas. We wouldn't recommend using woodchips on most trails since it is not ADA compliant and these trails would need to serve primarily as walking surfaces throughout the year.
9. Jerry - is there any estimates on the annual operating costs for the park?
  - Moderator – These numbers are still being completed and will be included in the full master plan report.
10. Rich - everyone who uses the park on a regular almost daily basis is opposed to any changes to this paradise
  - Moderator – thank you for your comment. We understand that this is a special place to those who have been using it regularly for the past couple of years, but the goal of the plan is to open the space to more diverse group of users while still protecting the natural resources that are on site. This includes making the park accessible to folks who have mobility challenges.
  - Mike McGraw – we understand that there are people who are enjoying the park as is, but from an ecological standpoint, the existing ecology is facing too many stress factors such as spreading invasive species and deer browsing. Without human intervention, the aging forests and degraded riparian area will only get worse.
11. Jim - Just a big thank you for an informative presentation.

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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Sarah Leeper, RLA  
Project Manager



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## MEETING NOTES

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Project: **Detweiler Park Master Site Plan** Project No.: **19060.10**

Location: **100 Fort Hunter Road Harrisburg PA 17110** Meeting Date/Time: **11/16/2020 6:00PM – 7:45 PM**

Virtual – Teams

Re: **Steering Committee Meeting #7: Draft Plan Comments Review**

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### ATTENDEES:

Carl Dickson	Joe Sherrick	Andy Brought
Deb Everly	Gregg Cook	Rob Gladfelter – SC
Sarah Leeper -	Peter Simone - SC	Patrick Fasano -
Simone Collins (SC)	Josh First	Comprehensive
Chris Rebert	Sally Zaino	Land Services
	Paula Zankel	

### NOTES:

1. Peter Simone started the meeting and thanked everyone for providing their comments to the SC Team. He explained that SC will be working on fixing typos and rewording as per comments. Peter S. noted that there were three main areas where there were a lot of comments: Forest Stewardship Plan, Deer population control, and three user groups – mountain biking, disc golf, and model airplane (Harrisburg Area Flying Society)..

#### Forest Stewardship Plan

2. Peter S. noted both Pat Fasano and Andy Brought were working on revisions to the forestry plan and thanked them for all the hard work they are doing to complete the comprehensive plan for managing the woodlands on the site. Andy B. explained that the plan that was included in the first draft master plan was an early version and the next version is about 85% done. It will be attached to the next version of the draft master plan. He explained that they were treating the plan to recommend what is best for the site without considering the owner (as per a normal stewardship plan). He noted that the report mentions timber harvesting, but that type of action would be decided by the County moving forward.

3. Chris Rebert commented that it was challenging to review all the plans in an electronic format. Carl Dickson noted that any committee member that would like a printed copy of the report should let him know and the County will provide a copy. Sarah Leeper added that the team will investigate adding maps into the separate reports for ease of reading. Chris R. noted that there was some inconsistency between the Forestry Plan and the AES plan. Peter S. and Pat F. noted that the next version of the Forestry Plan will correlate with the AES Plan. Chris R. also asked about the recommendation for any timbering within a riparian buffer and that the riparian buffer should be defined. Sally Zaino noted that Manada Conservancy uses a 100 ft. riparian buffer for their plans. Pat F. noted that the newest version does have 100 ft. riparian buffer zone and there are no recommendations for timbering in these areas.
4. Paula Z. asked if the County is thinking of getting revenue through timber sales at Detweiler. Carl D. noted that at this point the County has no preconceived ideas and will be waiting for the final recommendations from the report. He also noted that the County has done timber sales before in Fort Hunter. Andy B. explained that timbering would assist in establishing young habitat and will promote the growth of desirable trees that need elements of full and part sun for healthy growth. Sarah L. noted that stewardship within any area for timbering, especially within the Pine Plantation, will need to have clear coordination between the master plan, forestry plan, and AES plan.

#### Wildlife population control

5. Peter S. started this discussion by explaining that perhaps the terminology within the report will need to be clarified and that culling may not be the correct term to use. He explained that there is a need for deer control, but many have expressed the opinion that hunting in the park must be controlled. He noted that the report should address a suggested framework for policy for the County. There are many ways that the County can put this policy into action. (i.e. hunting lottery or other approach).
6. Josh First noted that he agreed about specific terminology. He explained that he would suggest that the SC Team create a more blanket strategy or broad statement that will address all wildlife control. It should state that conflicts with wildlife are inevitable and the County will be investigating best practices that will work for this site. The County will need to provide park visitor awareness when hunts are occurring.
7. Paula Z. stated that the main goal should be visitor safety. Agreed. She noted that Detweiler is the only site in the area where people can go without any concern of conflicts with hunting. She added that there were plenty of areas for hunting within the region. Josh F. agreed and noted that the policies to be adopted by the County will have to be responsible and emphasize safety. He noted that all state parks in Pennsylvania allow hunting and have proven to be very safe. Peter S. suggested that the site would not be the same as state game land, but hunting would provide a useful tool to assist in removing deer browsing pressure on the site. He added that signage would be needed to assure safety. Paula Z. agreed that safety and warnings will need to be stressed.
8. Deb Everly asked if all the key persons interviews were completed. The SC Team has completed interviews with the State Game Commission and the Ned Smith Center since the draft plan. Sarah L. noted that the Game Commission can assist with implementation and management of native habitats and advise the County on

controlled hunting protocols. The Ned Smith Center does allow hunting on portions of their site.

9. Andy B. discussed the perimeter proposed deer fence and costs for erection and removal. . He suggested that any timber sale revenues could be used to offset the costs for the fencing.. Andy B. noted that deer still in fenced must be removed.

#### User Groups

10. One goal of the SC Team was to find ways to serve different users, by adding trails, playgrounds and other improvements balanced with improving habitat.. The team has never considered the site as a nature preserve, but rather a passive park. Three user groups were mentioned in comments.. The model airplane club is using the site on a year-to-year basis. The SC recommendation would be to limit flying season to avoid disturbing nesting birds. The disc golf course is proposed to be located in a small fragment of an area that does not get much use. A disc golf course could assist in justifying improvements to this area. Proposed mountain biking used received the greatest number of comments. He noted that the committee had begrudgingly accepted this use and that discussion with SAMBA has shown interest for mountain biking on the site. He noted that mountain bikers and disc golfers could be great partners in stewardship.. He then asked the committee for their opinion on what uses are appropriate for the park.
11. Gregg Cook liked the idea of attracting many users to the park. He noted that the improves the area quality of life and could also bring economic benefits. He explained that people from all over the world come to Dauphin County new recreational can attract additional revenue to area businesses. He noted that disc golf and mountain biking will typically hold events. He added that he believed that all user groups should remain, and that the draft plan does a great job of recreational use while conserving natural habitats. He noted that he has an economic development tool that he is willing to share with the committee to determine the impacts of park events has on a local economy. Peter S. noted that connecting with regional trails could bring additional tourism.
12. Sally Zaino expressed that she did not disagree with Gregg's comments, but she noted that the survey showed that most people wanted to keep it natural. She expressed concern with having shared use trails between bicycling and walking within Meade's Mountain.
13. Joe S. noted that he agreed with Gregg and that the majority of the park is preserved with recreation dispersed in small areas on the edges of the park. He added that if any group was to be excluded it should be the HAFC to increase the core meadow area in the proposed airplane field.
14. Andy B. noted that having the site kept natural is also a draw for visitors. He wondered if the park would be an economic benefit as Gregg suggested. He suggested that the park should be primarily for the residents of Dauphin County. He noted that people he has spoken with do not want additional amenities. He thought the committee was not in favor of adding these groups. Carl D. noted that committee members have spoken in favor for some of these groups. Andy B. noted that limiting times for model airplane use and mountain biking would need enforcement. How would the County enforce these regulations? . Peter S. noted that the agreement between HAFS and the County

is year to year. The County could end the agreement if the club time restrictions were not followed. He noted that is often much easier to work with a group rather than try to ban them. He added that there are programs such as no-fee user permits / badges to assist with rule enforcement. He noted that and groups such as SAAMBA will work to enforce rules to keep their privilege for site access.

15. Paula Z. noted that she supported having the disc golf course but noted that she was surprised at the number of trails that would be shared use. (mountain biking and walkers). She felt that there would be no way to enforce trail etiquette. Peter S. noted that most mountain bikers would be attracted to the trails in Meade's Mountain and there is a shared trail within David's Meadow, but this would probably see use more use from children. Sarah L. noted that SAAMBA had identified the site as a place for teaching children and asked if the committee would be more open to this idea. Sally Z. stated that she was not totally against having mountain biking on the site, but it should not be in Meade's Mountain.
16. Chris R. noted that Wildwood Park has challenges for providing mountain biking for children and that this may be a good opportunity to have this at Detweiler. He also noted that in the reports, there are no recommendations for managing the fields that will be converted into meadows. He suggests the report should address what should be done now until the fields become meadow. Peter S. noted that this will be included in the report. Chris R. added that how the public will be notified as different management methods being used and if herbicides will be applied and when. Andy B. noted that current field management is not good management. He noted that the Game Commission and DCNR could be great partners in helping implement the manage the restoration of the site. He also noted that the site is part of the St. Anthony's Wilderness Important Bird Area (IBA).
17. Paula Z. noted that allowing camping on the site has received some negative comments and that any supervision would be difficult. She added that County parks are dusk to dawn, and vandalism is always a concern. Peter S. explained that one recommendation for the site is to have full time management and that this would add another set of eyes on the site. Sarah L. added that having camping would be controlled by the County and that if it is added to the park, it would be after regional connections are made.

#### Next Steps

18. Peter S. noted that the next public meeting was on Dec 7<sup>th</sup>, but this could be moved if the committee would like to have another chance to review a second draft. The committee and Carl D. agreed that this was a good path moving forward.
19. Peter S. thanked everyone for their input and explained that the SC Team will take all the comments given and work with the County to revise the plan. Carl D. stated that he believed that plan is a great compromise between public and committee input that reflects everyone's interest. He thanked the committee for providing insightful and thoughtful comments and sharing their expertise to the process.
20. Peter S. ended the meeting and noted that the SC Team will work with the County to provide dates moving forward and will look to move the next Public Meeting to the end of January.



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Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter

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## MEETING NOTES

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Project:	<b>Detweiler Park Master Site Plan</b>	Project No.:	<b>19060.10</b>
Location:	<b>100 Fort Hunter Road Harrisburg PA 17110</b> <b><i>Virtual Meeting</i></b>	Meeting Date/Time:	<b>01/27/2021</b> <b>7:00PM – 8:30 PM</b>
Re:	<b>Public Meeting #4: Final Master Plan</b>		

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### ATTENDEES:

See Attached Record:

### NOTES:

Simone Collins on behalf of Dauphin County Parks and Recreation held a Microsoft Teams Live Event to present the Detweiler Park final Master Plan to the public. A recording of the presentation can be watched by following the link below.

[Click Here to Watch Meeting](#)

The following is the record of questions and comments submitted by the public during the virtual live event. Order of questions have been revised to group similar comments together. Simone Collins has edited submitted questions for grammar and spelling errors. Moderator (Simone Collins) responses have been revised for clarity. Names have been associated with comments when they were provided.

1. Anonymous – Shouldn't the objective be appreciation of nature's beauty rather than distractions from man-made structures and "art?" I find the "art in nature" displays at Wildwood detract from the experience.
  - Peter Simone – thank you for expressing your opinion. There may be some that agree with you and others that would disagree. It is more important that any discussion with art in the park begin with an investigation the many different options of how art has been used successfully within a natural park environment. It may be found that only having temporary art installations work best for this park.
2. Anonymous - Have there been preliminary discussions with the ATC about the connecting trail and, if so, has the proposed connector from a mountain biking trail inhibited their enthusiasm of this plan? Bikes are not permitted on this section of the AT.
  - Peter S. – The design team had interviewed the Regional Manager of the Appalachian Trail Conservancy to learn of the process of how trails are linked to the AT and shared this information in the report. It starts with reaching out to the local group. This process has not been started. The connection also may need an easement. If this connection starts to become a reality, then the County can start the process. As a point of

clarification, the connector trail is for hiking only and not intended for biking, which is permitted on the trail used to access the connector trail.

3. Anonymous - What happened to the HAFS airfield?
  - Peter S. – During this process, it was decided by the committee and the public to concentrate this site for providing habitat. The meadows will be an important area for nesting birds and the model airplanes would interfere and discourage important bird species from using the space. The committee determined that the long-term use of the site for recreational modal air planes was in conflict with the plan goals.
4. Scott Rogers - Sincerely appreciate everything your team as done, is there anything in the works for a 5K running trail/cross country running course that could handle community/group runs?
  - Peter S. –The team had not looked into specific programs that could be done within the park. This does sound like a great idea and can be something to be explored in the future with the County.
5. Anonymous - Has SAAMBA looked at the Mountain Bike trail options.
  - Peter S. – yes, the team has had conversations with SAAMBA. They can be an important partner with stewardship of the site. The plan does not propose an intensive development of mountain biking trails. Both the team and SAAMBA do not see this park as a big draw for advanced mountain bikers. Most likely it would be used by local riders or beginners to get a quick ride.
6. Anonymous - If SAAMBA will self-monitor, does that mean that bike use will be limited to members of SAAMBA?
  - Peter S. – SAAMBA would not be the only mountain bicyclists, but they would be an important partner for assisting with expected cyclist behavior and rules. Groups such as SAAMBA are typically good stewards when they are given trails to ride on and will do what they can to make sure that they do not lose the privilege to use the trails.
7. Anonymous - Please comment on security. A short walk on the AT from Rt. 225 to the power lines illustrates the graffiti that can occur if security is not properly addressed.
  - Peter S. – the team has provided suggestions for improved security on site, including adding a full-time, on-site park manager. The best security is having visitors at the park to assist in policing the site.
8. Anonymous - Lots of emphasis on deer exclosure, what is the recommendation on hunting?
  - Peter S. – Great question. It was noted in both the forestry report and the ecological assessment report that there are a lot of deer on site, and continued deer browsing has decimated the forest understudy. A deer exclosure is only one piece of the puzzle to assist with restoration efforts in a concentrated area. It will still have to be monitored. Our suggestion is to include some type of hunting program as well as the deer exclosure to insure the County's investment of restoration of the site. The plan is not meant to determine the specifics of hunting on site. The specifics of a hunting program will be investigated by the County with partnerships to determine what type of program would best suit this site as a next step.
9. Anonymous - Who do you see initiating the "Friends of Detweiler Park" foundation - the county, private citizens?
  - Peter S. – A Friends group is citizen lead organization that works in conjunction with the property owner, the county in this case. The first steps of starting an organization

would involve reaching out to Carl Dickson, Director of the Dauphin County Parks and Recreation to determine if there are like-minded people and start the process of 501c. nonprofit organization. Often finding a willing lawyer to assist in this within a potential member pool is not difficult.

10. Anonymous - Could you please explain what disc golf is? I do not find it invasive to the setting and it provides an alternative use.
  - Peter S. – This is a sport where people use a frisbee disc to throw at baskets like targets. The infrastructure is often limited to signage, hiking trails, and the baskets. This activity has a big following and could create another partner for stewardship. The area where the disc golf course is proposed is already under stress from invasive plants, the creation the course hiking trails would be paired with a larger understory restoration geared towards the removal of invasives. The courses often are developed in existing forest and the more trees that are included into a particular hole, the more of a challenge it becomes.
11. Anonymous - The phasing proposed seems random, why not work west to east or north to south.
  - Peter S. – The phasing plan is to provide a starting point. Our approach was to address basic needs of improved access in the earlier phases. The phasing plan is structured so that each park area is broken down into smaller pieces; this will give the County the ability to adjust the phasing plan as opportunities arise or priorities change. The phasing will change depending on funding sources or as specific areas interest arise.
12. Anonymous - No question, just want to thank you and everyone involved for this process and for recognizing the natural value of this park.
13. Anonymous - Will any of the trails be suitable for x country skiing?
  - Peter S. – Yes. There are a number of trails that are to be ADA accessible and would be very suitable for cross country skiing.
14. Anonymous - Are you able to make the data underlying the riparian plan available to the public to view potential water overflow impact, particularly in the wet season?
  - Peter S. – How this question is asked is a little confusing. The idea is to improve riparian zones which would reduce stormwater impacts. Creating big riparian buffers and creating BMPs will improve the hydrology of the site.
  - Mike McGraw – As restoration is completed and the forest floor is re-established, the amount of overland sheet flow water that enters the streams would be greatly reduced and the water quality would improve.
15. Anonymous - do the fishery first since everyone will see the output since it is on the road.
16. Anonymous - To whom should violations be reported?
  - Peter S. – There should be a set of rules and regulations posted at various areas of the park that should provide visitors with information such as who to call for emergencies or to report violations.
17. Anonymous - The trails really need to be marked. Is it a priority that will be addressed in the first phase?
  - Peter S. – We agree, and in the report, trail markers are discussed as well as the type of information that should be displayed. Wayfinding is a very important component of any park.

18. Tim - Phased improvements with emphasis on improved and increased parking, and improved foot access to existing meadow trails would be a great start.
19. Peter S. concluded the meeting and thanked everyone for their participation with the Detweiler Park Master Plan.

This report represents the Professional's summation of the proceedings and is not a transcript. Unless written notice of any correction or clarification is received by the Professional within ten days of issue, the report shall be considered factually correct and shall become part of the official project record.

Sincerely,  
SIMONE COLLINS, INC.  
LANDSCAPE ARCHITECTURE



Rob Gladfelter  
Project Landscape Architect

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# Property Deed

Dauphin County UPI: 43-010-003-000-000  
Dauphin County UPI: 43-010-006-000-000  
Dauphin County UPI: 43-010-007-000-000  
Dauphin County UPI: 43-010-021-000-000  
Dauphin County UPI: 43-010-034-000-000

## Special Warranty Deed

THIS DEED, made the 29th day of December, 2016, between THE COUNTY OF DAUPHIN, A Third-Class County, organized and existing under the laws of the Commonwealth of Pennsylvania, with principal offices at 2 South Market Square, Harrisburg, Pennsylvania, (hereinafter referred to as "Grantor")

and

THE COUNTY OF DAUPHIN, A Third-Class County, organized and existing under the laws of the Commonwealth of Pennsylvania, with principal offices at 2 South Market Square, Harrisburg, Pennsylvania, (hereinafter referred to as "Grantee").

WITNESSETH, that Grantor, for and in consideration of the sum of One Dollar (\$1.00) lawful money of the United States of America, paid by Grantee to Grantor at or before the sealing and delivery hereof, the receipt and sufficiency of which is hereby acknowledged, and in part as a charitable gift in furtherance of the conservation purposes of Grantee, its successors and assigns, as described herein, has granted, bargained and sold, aliened, enfeoffed, released and confirmed, and hereby grants, bargains and sells, aliens, enfeoffs, releases and confirms to Grantee, its successors and assigns:

ALL that certain piece, parcel or tract of land, together with the improvements thereon erected, situate in Middle Paxton Township, Dauphin County, Pennsylvania, described in accordance with a boundary survey prepared by Burch Associates, dated October 12, 2016, a copy of which is attached hereto, marked Exhibit A, which is hereby made a part hereof and which premises are bounded and described as follows, to wit:

BEGINNING at a pk nail set in the bed of PA Route 325, at line of lands now or formerly of John W. Fulton and Beatrice S. Fulton and lands now or formerly of Brett P. Zankel and Paula S. Zankel;  
thence along said Zankel lands, South thirty-three degrees (33°) fifty-eight minutes (58') twenty-nine seconds (29") West, the distance of four hundred ninety-six and seventy-two hundredths feet (496.72') to a concrete monument;  
thence continuing along same, South twelve degrees (12°) fifty-eight minutes (58') twenty-nine seconds (29") West, the distance of three hundred and zero hundredths feet (300.00') to a concrete monument;  
thence continuing along same and continuing along lands now or formerly of Thomas J.



VanWagner and Christine P. VanWagner, South seventeen degrees (17°) fifty-eight minutes (58') twenty-nine seconds (29") West, the distance of one thousand twenty-eight and zero hundredths feet (1,028.00') to a pk nail set in the bed of PA Route 325; thence continuing along said VanWagner lands, South thirty-seven degrees (37°) fifty-two minutes (52') fifty-four seconds (54") West, the distance of three hundred twenty-two and zero hundredths feet (322.00') to a pk nail, set in the bed of PA Route 325; thence continuing along said VanWagner lands, South fifty-one degrees (51°) thirty-seven minutes (37') six seconds (06") East, the distance of one hundred fifty and zero hundredths feet (150.00') to a point at the north bank of Clarks Creek; thence down Clarks Creek, South forty-five degrees (45°) thirty-four minutes (34') eleven seconds (11") West, the distance of two hundred fifty-two and nineteen hundredths feet (252.19') to a point; thence continuing along Clarks Creek, South sixty-nine degrees (69°) nine minutes (09') fifty seconds (50") West, the distance of four hundred sixty-nine and thirty-eight hundredths feet (469.38') to a point; thence continuing along Clarks Creek, South sixty-seven degrees (67°) thirty-one minutes (31') forty-four seconds (44") West, the distance of three hundred eighty-five and twenty-two hundredths feet (385.22') to a point; thence continuing along Clarks Creek, South seventy-two degrees (72°) twenty minutes (20') forty-one seconds (41") West, the distance of three hundred twenty-one and forty-two hundredths feet (321.42') to a point; thence continuing along Clarks Creek, South eighty-eight degrees (88°) forty-six minutes (46') thirty-four seconds (34") West, the distance of one hundred fifty-eight and eleven hundredths feet (158.11') to a point; thence continuing along Clarks Creek, North eighty-eight degrees (88°) eight minutes (08') fifty-seven seconds (57") West, the distance of one hundred eighty-three and forty-two hundredths feet (183.42') to a point; thence continuing along Clarks Creek, South eighty-eight degrees (88°) forty-seven minutes (47') thirty-eight seconds (38") West, the distance of one hundred thirty-six and sixty-five hundredths feet (136.65') to a point; thence continuing along Clarks Creek, South eighty degrees (80°) thirty-seven minutes (37') twenty-five seconds (25") West, the distance of one hundred thirty-three and sixty-two hundredths feet (133.62') to a point in the bed of Pa. Route 325; thence through the bed of PA Route 325, South seventy-three degrees (73°) thirty-one minutes (31') fifty-four seconds (54") West, the distance of two hundred eighty-eight and sixty-three hundredths feet (288.63') to a point; thence continuing through the bed of Pa. Route 325, South sixty-three degrees (63°) thirty-two minutes (32') forty-four seconds (44") West, the distance of one hundred twenty-eight and twenty hundredths feet (128.20') to a point; thence continuing through the bed of Pa. Route 325, South sixty degrees (60°) forty-eight minutes (48') fifty-two seconds (52") West, the distance of one hundred twenty-four and fifty-two hundredths feet (124.52') to a point on the north bank of Clarks Creek; thence along Clarks Creek, South fifty-one degrees (51°) twenty-eight minutes (28') twenty-seven seconds (27") West, the distance of three hundred nine and fifty-six hundredths feet (309.56') to a point; thence continuing along Clarks Creek, and crossing PA Route 225, South forty-eight

degrees (48°) zero minutes (00') zero seconds (00") West, the distance of two hundred sixty-seven and forty-seven hundredths feet (267.47') to a point at line of lands now or formerly of Robert M. Megonnell;

thence along same, North thirteen degrees (13°) twenty-two minutes (22') twenty-eight seconds (28") West, the distance of one hundred forty-six and fifteen hundredths feet (146.15') to a point in the bed of McKelvey Road (T-573);

thence along through the bed of McKelvey Road, re-crossing PA Route 225 and continuing through the bed of PA Route 225, along line of lands now or formerly of Jean D. King, North sixty-three degrees (63°) thirty-two minutes (32') forty-four seconds (44") East, the distance of six hundred fifty-one and seventy-one hundredths feet (651.71') to a point in the centerline of PA Route 325;

thence continuing along said centerline and lands of Jean D. King, North sixty-three degrees (63°) thirty-two minutes (32') forty-four seconds (44") East, the distance of one hundred twenty-eight and twenty-eight and twenty hundredths feet (128.20') to a point;

thence continuing along said centerline and lands of Jean D. King, North seventy-three degrees (73°) thirty-one minutes (31') fifty-four seconds (54") East, the distance of two hundred eighty-eight and sixty-three hundredths feet (288.63') to a point;

thence continuing along said centerline and other tracts of Jean D. King, North seventy-three degrees (73°) thirty-one minutes (31') forty-nine seconds (49") East, the distance of six hundred sixty-nine and thirty hundredths feet (669.30') to a point;

thence along said King lands, North thirty-three degrees (33°) fifty-two minutes (52') twenty-eight seconds (28") West, the distance of one hundred ten and sixty-six hundredths feet (110.66') to a concrete monument set at an iron pin found;

thence continuing along said King lands, North twenty-eight degrees (28°) two minutes (02') sixteen seconds (16") West, the distance of one hundred fifty-four and eighty-two hundredths feet (154.82') to a concrete monument set at an iron pin found;

thence continuing along said King lands, North sixty-one degrees (61°) thirty-seven minutes (37') thirty-seven seconds (37") West, the distance of one hundred five and ninety-one hundredths feet (105.91') to a concrete monument set at an iron pin found;

thence continuing along said King lands, South seventy-five degrees (75°) fifty-five minutes (55') fifty-three seconds (53") West, the distance of eighty-two and zero hundredths feet (82.00') to a concrete monument set at an iron pin found;

thence continuing along said King lands, South eighty-seven degrees (87°) forty-two minutes (42') thirty-three seconds (33") West, the distance of one hundred nineteen and sixty-three hundredths feet (119.63') to a concrete monument set at an iron pin found;

thence continuing along said King lands, North forty-three degrees (43°) fifty-four minutes (54') forty-seven seconds (47") West, the distance of two hundred nine and fifty-six hundredths feet (209.56') to a concrete monument set at an iron pin found;

thence continuing along said King lands, South sixty degrees (60°) twenty-six minutes (26') fifty-six seconds (56") West, the distance of three hundred twenty-two and fifty-four hundredths feet (322.54') to a concrete monument set at an iron pin found at line of lands now or formerly of Dauphin County Conservation District;

thence along same, North twenty-five degrees (25°) forty-eight minutes (48') fifty-four seconds (54") West, the distance of three hundred ninety-three and eighty-nine hundredths feet (393.89') to a concrete monument set;

thence continuing along same, South seventy-one degrees ( $71^{\circ}$ ) zero minutes ( $00'$ ) twenty-seven seconds ( $27''$ ) West, the distance of eight hundred sixty-nine and ninety hundredths feet ( $869.90'$ ) to an iron pin set in the bed of PA Route 225;

thence through the bed of PA Route 225, North twenty-seven degrees ( $27^{\circ}$ ) two minutes ( $02'$ ) fifty-nine seconds ( $59''$ ) West, the distance of three hundred fifteen and one hundredths feet ( $315.01'$ ) to a point at line of lands now or formerly of Shirley A. Ulrich and Leon B. Ulrich;

thence along said Ulrich lands, and crossing the bed of Evergreen Lane, North seventy-two degrees ( $72^{\circ}$ ) thirteen minutes ( $13'$ ) forty-five seconds ( $45''$ ) East, the distance of thirteen hundred fifty and seventy-nine hundredths feet ( $1,350.79'$ ) to a concrete monument found;

thence continuing along same, North eighteen degrees ( $18^{\circ}$ ) fifteen minutes ( $15'$ ) fifteen seconds ( $15''$ ) West, the distance of seven hundred thirty-seven and eighty-three hundredths feet ( $737.83'$ ) to a concrete monument found;

thence continuing along same and lands now or formerly of Joan A. Kistler, South sixty-four degrees ( $64^{\circ}$ ) thirty minutes ( $30'$ ) nineteen seconds ( $19''$ ) West, the distance of fourteen hundred fifty-four and nine hundredths feet ( $1,454.09'$ ) to a in the bed of PA Route 225, at line of lands now or formerly of The Fred C. Harteis and Linda C. Harteis Family Limited Partnership;

thence through the bed of PA Route 225, and lands of Harteis, along the arc of a forty-four hundred eighty-nine and seventy-five hundredths feet ( $4,489.75'$ ) radius curve to the right, which curve is subtended by a chord lying to the west thereof, which chord has a bearing North thirty-one degrees ( $31^{\circ}$ ) fifty-nine minutes ( $59'$ ) twenty-seven seconds ( $27''$ ) West and a chord distance of two hundred eighty-two and twenty-one hundredths feet ( $282.21'$ ), an arc distance of two hundred eighty-two and twenty-six hundredths feet ( $282.26'$ ) to a point

thence continuing along same, North thirty-three degrees ( $33^{\circ}$ ) forty-seven minutes ( $47'$ ) twenty-nine seconds ( $29''$ ) West, the distance of thirteen hundred ninety-two and sixty-seven hundredths feet ( $1,392.67'$ ) to a point at line of lands now or formerly of Frank A. Pinto;

thence along same, North sixty degrees ( $60^{\circ}$ ) fifty-two minutes ( $52'$ ) thirty-three seconds ( $33''$ ) East, the distance of four hundred sixty-three and fifty hundredths feet ( $463.50'$ ) to a concrete monument set;

thence continuing along said Pinto lands, North thirty-three degrees ( $33^{\circ}$ ) seven minutes ( $07'$ ) thirty-three seconds ( $33''$ ) West, the distance of two hundred eighty-seven and sixteen hundredths feet ( $287.16'$ ) to a concrete monument set at line of lands now or formerly of Aquilla R. King and Ruth Ann King;

thence along same, North forty-nine degrees ( $49^{\circ}$ ) twenty-seven minutes ( $27'$ ) fifty-five seconds ( $55''$ ) East, the distance of seventeen hundred seventy-four and forty hundredths feet ( $1,774.40'$ ) to a concrete monument set at iron pin found;

thence continuing along said King lands, North twenty-three degrees ( $23^{\circ}$ ) twelve minutes ( $12'$ ) twenty-six seconds ( $26''$ ) West, the distance of eight hundred seventy-eight and eighty-eight hundredths feet ( $878.88'$ ) to a point in the bed of PA Route 225, at line of lands now or formerly of Wayne B. Fertig;

thence along same and lands now or formerly of Dale H. Miller, North fifty-three degrees ( $53^{\circ}$ ) thirty-six minutes ( $36'$ ) thirty-six seconds ( $36''$ ) East, the distance of two

hundred forty-eight and eighty-six hundredths feet (248.86') to a point;  
thence continuing through the bed of PA Route 225, and along said Miller lands, North forty-six degrees (46°) thirty-six minutes (36') thirty-six seconds (36") East, the distance of six hundred forty and twenty hundredths feet (640.20') to a point in the bed of PA Route 225;  
thence continuing through the bed of PA Route 225, and along said Miller lands, North sixty-seven degrees (67°) six minutes (06') thirty-six seconds (36") East, the distance of one hundred thirty-two and zero hundredths feet (132.00') to a point in the bed of PA Route 225;  
thence continuing through the bed of PA Route 225, and along said Miller lands, North fifty degrees (50°) thirty-six minutes (36') thirty-six seconds (36") East, the distance of six hundred forty-three and fifty hundredths feet (643.50') to a concrete monument set at line of other land of Dale H, Miller;  
thence along same and continuing along lands now or formerly of Alan Goldstein, North seventy-nine degrees (79°) six minutes (06') thirty-six seconds (36") East, the distance of twelve hundred ninety-five and seventy-seven hundredths feet (1,295.77') to a concrete monument set at line of lands now or formerly of Robert G. Weiss and Beatrice Fulton, Trustees;  
thence along same, South sixteen degrees (16°) eighteen minutes (18') fifty seconds (50") East, the distance of one thousand forty-nine and eighty-one hundredths feet (1,049.81') to a stones found at lands of Beatrice and John Fulton;  
thence along same, South fourteen degrees (14°) twenty-four minutes (24') twelve seconds (12") East, the distance of seventy hundred forty-seven and forty-seven hundredths feet (747.47') to a concrete monument set at iron pin found;  
thence continuing along same, South seventy-five degrees (75°) thirty-five minutes (35') forty-eight seconds (48") West, the distance of sixteen and thirty-two hundredths feet (16.32') to a concrete monument set at iron pipe found;  
thence continuing along same, North fifty-five degrees (55°) twenty-six minutes (26') four seconds (04") West, the distance of one hundred sixty-five and zero hundredths feet (165.00') to a concrete monument set at iron pin found;  
thence continuing along same, South seventy-seven degrees (77°) thirty-one minutes (31') fifty-six seconds (56") West, the distance of two hundred twelve and sixty-five hundredths feet (212.65') to a concrete monument set at oak stump;  
thence continuing along same, South forty degrees (40°) twenty-six minutes (26') fifty-five seconds (55") West, the distance of three hundred sixty and thirty hundredths feet (360.30') to a concrete monument set at iron pipe found;  
thence along same and lands now or formerly of James O. Witmer, Jr. and Kara L. Witmer, South twenty degrees (20°) sixteen minutes (16') thirty seconds (30") East, the distance of two thousand seventy-three and forty-three hundredths feet (2,073.43') to a concrete monument found at corner of other lands of John W. Fulton and Beatrice S. Fulton;  
thence along same, North fifty-four degrees (54°) fifty-five minutes (55') fifty-six seconds (56") East, the distance of six hundred forty-six and eight hundredths feet (646.08') to a concrete monument set an iron pin found;  
thence continuing along said Fulton lands, South forty-five degrees (45°) forty-two minutes (42') four seconds (04") East, the distance of three hundred eight and four

hundredths fee (308.04') to the pk nail set in the bed of PA Route 325, the point and place of BEGINNING.

CONTAINING four hundred eleven and thirty-nine hundredths acres (411.39A) of land.

UNDER AND SUBJECT to conditions and restrictions as set forth in prior deeds of record including restrictions in favor of Pennsylvania Department of Conservation and Natural Resources (the "Department"), and the source of funds pursuant to the Keystone Recreation, Park and Conservation Fund Act, the act of July 2, 1993 (P.L. 359, No. 50) (32 P.S. §§201.1 et seq.) (the "Act"), as respects the whole of the premises above described except for four (4) interior non-contiguous tracts which are marked by cross-hatched lines on the attached survey plan.

BEING a unified legal description of four separate tracts of land comprising five (5) separate Tax Parcels: 43-010-003-000-0000; 43-010-007-000-0000; 43-010-006-000-0000; 43-010-034-000-0000; and 43-010-021-000-0000 and with it being intended that the unified description be designated as Dauphin County UPI: 43-010-006-000-0000.

BEING composed of two separate conveyances to the Grantor herein, the first:

BEING the same premises which Esme Detweiler Freedman, Frances D. Granatino, and Susan K. Detweiler, by their deed of even date herewith and to be and recorded herewith, granted and conveyed unto the County of Dauphin; and the second,

BEING the same premises which Green Meadows Partners I, a Delaware Limited Partnership, by deed of even date herewith and to be and recorded herewith, granted and conveyed unto the County of Dauphin.

**This transfer is wholly exempt as a transfer between one and the same party.**

Together with all and singular the buildings, privileges, hereditaments and appurtenances whatsoever thereunto belonging or in anywise appertaining, and the reversions and remainders, rents, issues and profits thereof; and all the estate, right, title interest, property, claim and demand whatsoever of it, the said Party of the First Part either in law or equity, of, in and to the same.

To have and to hold the said messuage or tenement and lot or piece of ground above described, hereditaments and premises hereby granted, bargained and sold, or mentioned, or intended so to be, with the appurtenances, unto the said Party of the Second Part, its successors and assigns, to and for the only proper use and behoof of the said Party of the Second Part, its successors and assigns forever.

AND GRANTOR, for its successor and assigns, hereby covenants and agrees to and with Grantee, its successors and assigns, that it will, under and subject as aforesaid, WARRANT SPECIALLY AND FOREVER DEFEND the Property hereby

conveyed.

IN WITNESS WHEREOF, Grantor has executed this deed the day and year first above written.

COUNTY OF DAUPHIN

BY: *Jeff Haste*  
Jeff Haste, Chairman of the Board of Commissioners

STATE OF PENNSYLVANIA

:  
: SS

COUNTY OF DAUPHIN

:

On this day, December 29, 2016, before me, a Notary Public, the undersigned officer, personally appeared Jeff Haste, Chairman of the Board of Commissioners of Dauphin County, Pennsylvania, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledge that he, being authorized so to do, executed the same for the purpose therein contained by signing the name of the County by himself as Chairman of the Board of Commissioners.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

*Robert G. Radelach*  
Notary Public

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
ROBERT G. RADELOCH, Notary Public  
Halifax Twp., Dauphin County  
My Commission Expires April 8, 2018

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
ROBERT G. RADELOCH, Notary Public  
Halifax Twp., Dauphin County  
My Commission Expires April 8, 2018

*I hereby certify that the precise address of grantee is  
2 South Market Square  
HARRISBURG, PA 17101*

**LINE / CURVE TABLE**

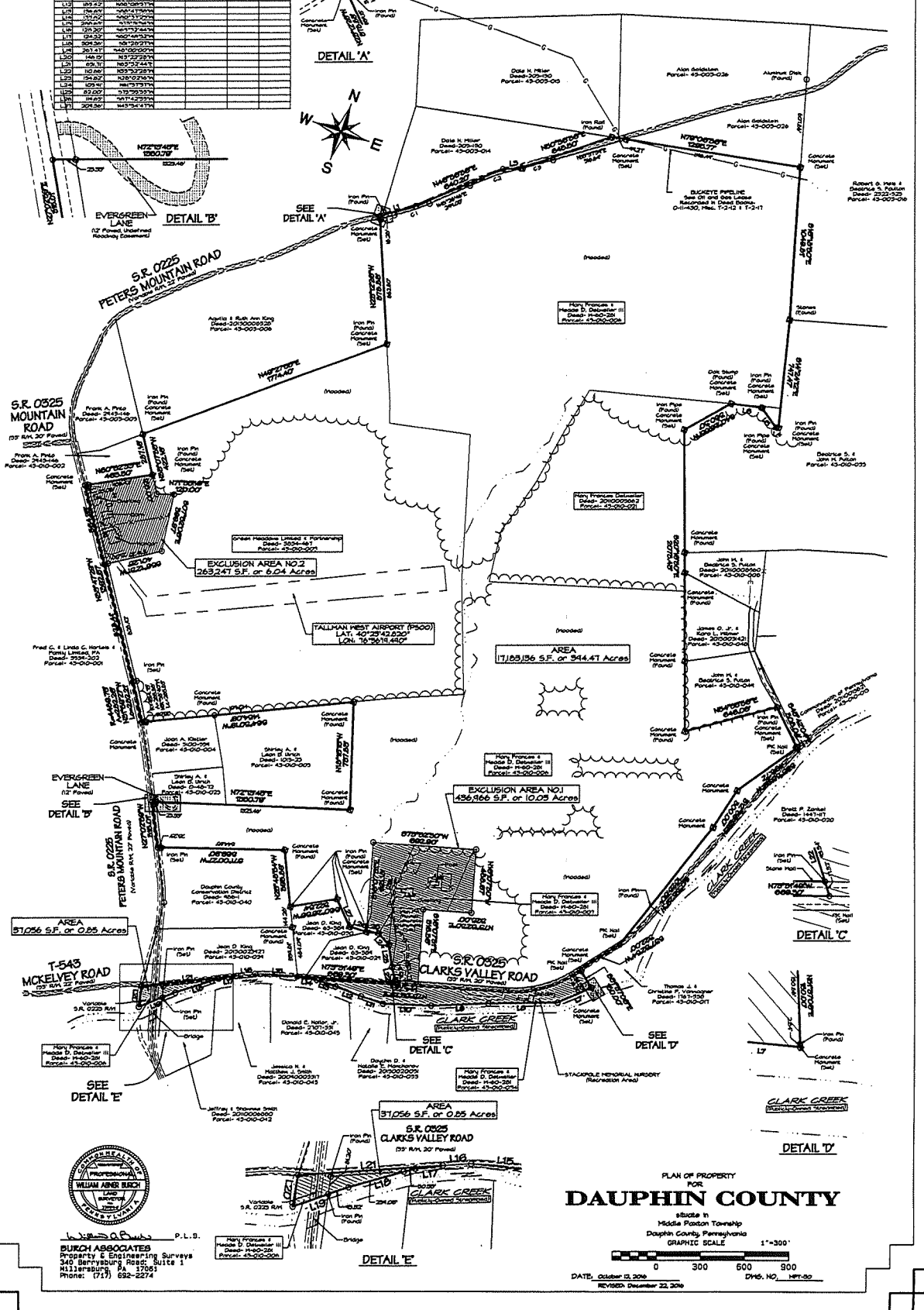
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L2	130.82	100.70	100.70			
L3	130.82	100.70	100.70			
L4	130.82	100.70	100.70			
L5	130.82	100.70	100.70			
L6	130.82	100.70	100.70			
L7	130.82	100.70	100.70			
L8	130.82	100.70	100.70			
L9	130.82	100.70	100.70			
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L15	130.82	100.70	100.70			
L16	130.82	100.70	100.70			
L17	130.82	100.70	100.70			
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L27	130.82	100.70	100.70			
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L29	130.82	100.70	100.70			
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L31	130.82	100.70	100.70			
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L50	130.82	100.70	100.70			
L51	130.82	100.70	100.70			
L52	130.82	100.70	100.70			
L53	130.82	100.70	100.70			
L54	130.82	.R.025	100.70			
L55	130.82	100.70	100.70			
L56	130.82	100.70	100.70			
L57	130.82	100.70	100.70			
L58	130.82	100.70	100.70			
L59	130.82	100.70	100.70			
L60	130.82	100.70	100.70			
L61	130.82	100.70	100.70			
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L64	130.82	100.70	100.70			
L65	130.82	100.70	100.70			
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L74	130.82	100.70	100.70			
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L85	130.82	100.70	100.70			
L86	130.82	100.70	100.70			
L87	130.82	100.70	100.70			
L88	130.82	100.70	100.70			
L89	130.82	100.70	100.70			
L90	130.82	100.70	100.70			
L91	130.82	100.70	100.70			
L92	130.82	100.70	100.70			
L93	130.82	100.70	100.70			
L94	130.82	100.70	100.70			
L95	130.82	100.70	100.70			
L96	130.82	100.70	100.70			
L97	130.82	100.70	100.70			
L98	130.82	100.70	100.70			
L99	130.82	100.70	100.70			
L100	130.82	100.70	100.70			

**AREA TABULATION:**

MAIN BODY 17,833.36 S.F. or 344.47 Acres  
 EXCLUSION AREA NO.1 436,466 S.F. or 10.03 Acres  
 EXCLUSION AREA NO.2 263,241 S.F. or 6.04 Acres  
 AREA A SOUTH WEST TRIANGLE 31,056 S.F. or 0.85 Acres  
 Total Property Area-17,820,415 S.F. or 411.34 Acres

**REFERENCES:**

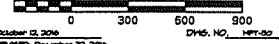
- Preliminary/Final Subdivision Plan For Meade D. & Mary Frances Detweiler Plan Book 1, Vol. 4, Page 55
- Preliminary/Final Subdivision Plan For John H. & Beatrice S. Fulton Instrument No. 2012001821
- Plan of Property For Mary Ellen Spence and John Fulton & Beatrice S. Fulton Drawing No. H80-46 by William A. Burch and Associates
- Plan of Property For Harry Salmon & Estelle I. Salmon Drawing No. HPT-6 by William A. Burch and Associates
- Signs and Markers for Commonwealth of Pennsylvania, Department of Transportation Dead Book 2120, Page 423
- Property Survey of John D. Tallman by Mahoff Associates
- Plan of Property For James L. Flynn & Helen R. Flynn, NH Drawing No. 74-73-150 by Joseph H. Bonarigo



W.A. Burch, P.L.S.  
 BURCH ASSOCIATES  
 Property & Engineering Surveys  
 340 Berryburg Road, Suite 1  
 Harrisburg, PA 17103  
 Phone: (717) 692-5274

**PLAN OF PROPERTY FOR DAUPHIN COUNTY**

situate in Middle Paxton Township Dauphin County, Pennsylvania GRAPHIC SCALE 1"=300'



DATE: October 12, 2006  
 REVISION: December 22, 2006

James M. Zugay, Esq.  
Recorder of Deeds  
(717) 780-6560  
jzugay@dauphinc.org

Candace E. Meck  
First Deputy  
www.dauphinc.org/deeds

## Dauphin County



## Recorder of Deeds

Harrisburg, Pennsylvania

### CERTIFIED END PAGE

*Location:*  
Dauphin County Courthouse  
Room 102  
101 Market Street  
Harrisburg, PA 17101

INSTRUMENT #: 20160034468  
RECORD DATE: 12/29/2016 2:40:09 PM  
RECORDED BY: SKREVSKY  
DOC TYPE: DEED  
AGENT: ROBERT RADEBACH  
DIRECT NAME: DAUPHIN COUNTY OF  
INDIRECT NAME: DAUPHIN COUNTY OF

RECORDING FEES - State: \$0.50  
RECORDING FEES - County: \$13.00  
ACT 8 OF 1998: \$5.00  
ADDITIONAL NAME FEE: \$8.00

MIDDLE PAXTON TWP  
CENTRAL DAUPHIN  
AOPC: \$35.50  
AFFORDABLE HOUSING: \$13.00

UPICount: 5  
UPIFee: 100  
UPIList:

43-010-003-000-0000, 43-010-006-000-0000, 43-010-007-000-0000, 43-010-021-000-0000, 43-010-034-000-0000  
I Certify This Document To Be Recorded  
In Dauphin County, Pennsylvania.



James M. Zugay, Recorder of Deeds

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THIS IS A CERTIFICATION PAGE

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**PLEASE DO NOT DETACH**

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT





DAUPHIN COUNTY  
PENNSYLVANIA  
PARKS & RECREATION

