



White Township Parks Project: Preliminary Assessment

White's Woods: 228.9 acres

1. Sustainable Objective Timber Harvest
2. Invasive plant species treatment
 - a. Treatments are performed with a combination of mechanical and chemical applications to ensure accurate and efficient removal of invasive species. This dual method will be applied at all park locations where invasive species are present.
 - b. The invasive species observed on site were Japanese barberry (*Berberis thunbergii*), Japanese stiltgrass (*Microstegium vimineum*), oriental bittersweet (*Celastrus orbiculatus*), autumn olive (*Elaeagnus umbellate*), and multiflora rose (*Rosa multiflora*).
 - c. 228.9 acres of treatable area at \$500.00/acre for combination mechanical/chemical treatments: \$114,450.00
 - d. For streambank improvements we plan to use Fascines, which are bundles of living stems of native species that will establish a riparian buffer. For White Township projects we plan to operate with an estimation of applying fascines to half of the linear length of the stream (realistically it should be less than this, but for estimating cost we will run on the higher end).
 - i. Fascines: \$4.00/Linear foot
 - ii. Total stream bank: 3300 feet, 1650 feet to receive fascines: \$6600.00.
3. Potential recreation/education projects
 - a. On site amphitheatre constructed of and paid for by trees harvested in White's Woods.
 - b. Low impact interpretative signage. These are educational signs erected at locations in the park that show significant habitats, draw attention to native wildlife, or areas of historical significance.
 - c. Old benches and sign posts and benches can be replaced using lumber from the sale within the park.

S&T Bank Arena and Recreation Complex: 90.267 acres

1. Invasive species treatments
 - a. Species observed on the arena property were primarily honeysuckle (*Lonicera spp.*), and multiflora rose (*Rosa multiflora*).



However, more thorough investigations will need to be performed to establish a complete list of invasive species.

- b. 35 acres of treatable area at \$500.00/acre for combination mechanical/chemical treatments: \$17,500.00.
2. Tree Nursery
 - a. Working with the American Chestnut Foundation to establish an American chestnut and native tree nursery.
3. Multi-purpose Recreation Pond
 - a. Promoting native wetland plant species
 - b. Fishing opportunities
 - c. Pond Hockey

Getty Heights Park

1. Invasive species treatments
 - a. Species observed on site were small numbers of honeysuckle (*Lonicera spp.*) and multiflora rose (*Rosa multiflora*).
 - b. 2 acres of treatable area at \$500.00/acre for combination mechanical/chemical treatments: \$1000.00.
2. Pollinator Gardens
 - a. Establishing several native flower gardens in low use areas of the park will enhance aesthetics and improve wildlife value.
3. Riparian Work
 - a. Improving the banks along the small stream that meanders through the park will have many positive benefits.
 - i. Improved aesthetics
 - ii. Improved water quality
 - iii. Improved wildlife value
 - b. This is accomplished with a combination of native plantings of shrubs and native herbaceous plants, and placing logs and stone to improve function and reduce erosion.
 - c. For streambank improvements we plan to use Fascines, which are bundles of living stems of native species that will establish a riparian buffer.
 - i. Fascines: \$4.00/Linear foot



- ii. Total stream bank: 1100 feet, 550 feet to receive fascines:
\$2200.00.

White Township Municipal Office

1. Species Diversity
 - a. Planting an appropriate collection of native tree and shrub species to complement the existing flora (mainly hickory) on site around the offices.
2. Riparian Work
 - a. Removal and treatment of Japanese knotweed (*Fallopia japonica*) along the stream will be important to ensure the success of any native plantings. Knotweed is a very aggressive invasive species that can choke out nearly all competing plant species.
 - b. Improving the integrity of the banks with native shrubs and herbaceous plants will help to reduce sedimentation downstream. This will also help reduce the loss of ground to erosion during high water events.
 - c. For streambank improvements we plan to use Fascines, which are bundles of living stems of native species that will establish a riparian buffer.
 - i. Fascines: \$4.00/Linear foot
 - ii. Total stream bank: 1400 feet, 700 feet to receive fascines:
\$2800.00.

Kennedy King Park: 3.4 acres

1. Small park with no forested patches. Further investigation will be needed to establish any treatments or projects that may be possible.

Fourth Ward Park: 2.07 acres

1. Small park with no forested patches. Further investigation will be needed to establish any treatments or projects that may be possible.
2. Proximity to White's Woods suggests there are potential invasive species problems despite being such a small park.

Storm Water Basins: 12 acres

1. We are waiting on precise locations of these areas to establish what steps need to be taken.



General Applications

All sites will receive native plantings of trees, shrubs, and herbaceous plants for the purposes of improving species diversity, wildlife value, and aesthetic value of the parks. This will include plantings in storm water basins, wet areas, and areas of low diversity.

Below is a table showing Acreage and cost estimates for the total projects in White Township based on current numbers and estimations.

White township Project

Park Name	Total Acres	Treatment Acres	Stream Bank (Linear feet)	Saleable Timber
Recreation Complex	90.267	35	0	Yes
White's Woods	228.9	228.9	3300	Yes
Fourth Ward Park	2.07	0	0	no
Getty Heights Park	12.22	2	1100	no
Kennedy King Park	3.4	0	0	no
Municipal Building	8	0	1400	no
Stormwater Basins	12	0	0	no

356 <Total Acreage

265.9 <Total Treatment Acreage

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500/acre

<Treatment rate (Mechanical/Chemical)

\$132,950.00 <Total insvasive/forest treatment cost

\$4.00/linear foot <Streambank improvement using fascines*

\$11,600.00 <Fascines for half of total streambanks