Girty’s Woods is a 155-acre urban woodland in Reserve Township, PA. The site has survived a long history of natural resource extraction and general abuse, but with the recent acquisition by Allegheny Land Trust come opportunities for ecological restoration and community connectivity. Girty’s Woods Management Concepts is a conceptual design and action plan that can serve as a strategic tool for future efforts towards providing recreational opportunities for surrounding communities, as well as bolstering ecological vitality for future generations.
GIRTY’S WOODS MANAGEMENT CONCEPTS
Context, Issues, and Opportunities

Girty’s Woods rests on a hillside overlooking Millvale, a river town on the northern banks of the Allegheny. As a former industrial hotspot, Millvale has retained its cultural and economic ties to the city of Pittsburgh, while retaining its endearing rugged character.

The citizens of Millvale Borough have played a significant role in the acquisition of Girty’s Woods, but they are adversely affected by the poor conditions of on-site trails. Inaccessible slopes exclude aging populations in the surrounding communities and they are most prevalent on the hillside overlooking Millvale. Rerouting of trails and trail surfacing will be required to amend these disparities.

Key Features

- Millvale Water Tower
- Power Lines
- Radio Tower
- Facilities
- ATV Circuit
- Regional Connector Route

Regional Context

Pittsburgh

Minimal Vegetation Coverage
Symptoms of Neglect and Abuse

- Pervasive Soil Degradation
- Widespread Erosion

High Accessibility

- 50% of all trails are 5% or less in slope. Accessible trails are most highly concentrated in the areas close to the Irwin Lane entrance to the site.

Erosion and Access

- 80% of existing accessible trails are at high risk of degradation. This limits casual access from Millvale, where accessible slopes are scarce.

Trails At Risk

- 70% of all trails on site are at high risk of future degradation because they run at angles 45° or greater to existing slopes.

Trail Conditions and Accessibility

High Accessibility

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Symptoms of Neglect and Abuse

- Minimal Vegetative Cover
- Pervasive Soil Degradation
- Widespread Erosion

The Woods have long been subject to degradation by loggers, miners, and, most recently, a multi-generational community of ATV and off-road bike users. Their activities have eroded site soil conditions and, along with clearing for utilities, have disrupted contiguous woodland habitat that could otherwise become a sanctuary for wildlife in the region.

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GIRTY’S WOODS MANAGEMENT CONCEPTS
Trail Management, Adjustments, and Restoration

Suggested Trail System Adjustments

Trail Legend
- Existing Trail
- Proposed Trail
- Informal Trail
- Trail to be Retired
- Educational Signage

Trail Schedule
<table>
<thead>
<tr>
<th>Name</th>
<th>Distance</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridgetop Trail</td>
<td>0.90 Miles</td>
<td>Easy</td>
</tr>
<tr>
<td>Overlook Trail</td>
<td>1.02 Miles</td>
<td>Moderate</td>
</tr>
<tr>
<td>Heathland Trail</td>
<td>1.18 Miles</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Surfacing and Accessibility
85% of formal trail lengths are 5% or less. The entirety of the Overlook Trail and its point of access from Irwin Lane are ADA accessible after surfacing.

ADA accessible trails shall be paved with crushed stone specified at 3/8", with added fines, laid down in 2-3" lifts. This is a higher-maintenance option, but is permeable.

All formal trails must maintain a vertical clearance of 8'-10'. Horizontal clearance varies across loops, with wider clearance closer to the Irwin Lane Trailhead.

In order to provide a variety of recreational opportunities to individuals of varying ability and preserve as many existing trails as possible, a stacked loop trail system is proposed. New trails provide sustainable alternatives to existing trails that will be retired through selective planting strategies or remain informal. The retirement or abandonment of trails is a result of adverse slopes, significant soil degradation, or habitat fragmentation.

Ridgetop Trail brings hikers through a high diversity of plant communities and the site’s primary vistas.

Overlook Trail is ADA accessible and encircles both summits in the Woods.

Heathland Trail traverses pedestrians through heathland habitats and connects Millvale to the greater Woods trail system.
GIRTY’S WOODS MANAGEMENT CONCEPTS
Ecological Restoration and Planting Strategies

On-Site Woodland Habitat

Existing Plant Communities

On-Site Woodland Habitat

Existing Woodlands

Utilities and other disturbances fragment woodlands. Existing interior woodland habitat amounts to 23.28 acres.

- Existing Woodland Interior Woodland

Existing Woodland

<table>
<thead>
<tr>
<th>Code</th>
<th>Community Name</th>
<th>Area (sq. miles)</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA</td>
<td>Birch (Black Gum) Rocky Slope Woodland</td>
<td>129.48 sq. miles</td>
<td>25.64 sq. acres</td>
</tr>
<tr>
<td>Us</td>
<td>Dry Oak - Heath Woodland</td>
<td>353.43 sq. miles</td>
<td>73.2 sq. acres</td>
</tr>
<tr>
<td>Dw</td>
<td>Low Heath Shrubland</td>
<td>6.31 sq. miles</td>
<td>60.86 sq. miles</td>
</tr>
<tr>
<td>Ds</td>
<td>Urban / Disturbed</td>
<td>60.86 sq. miles</td>
<td>6.31 sq. miles</td>
</tr>
</tbody>
</table>

Area prioritized for intensive Dry Oak and Birch Rock Slope woodland planting amounts to 25.64 sq. acres.

- Proposed Woodland Interior Woodland

Priority Planting

This intensive planting intervention will increase interior woodland habitat by 250% to a total of 73.2 sq. acres.

- Proposed Woodland Interior Woodland

Proposed Woodlands

To a total of 73.2 sq. acres.

- Priority Planting Interior Woodland

Existing Woodland

- Existing Woodland Interior Woodland

Low Heath Shrubland

Low Heath Shrubland occurs in areas where harsh microclimate conditions, like frost hollows or inadequate soil moisture, prevent the establishment of a dominant Dry oak - Heath canopy layer. These shrublands are periodically subject to fires as a result of the dry conditions upon which they thrive. Grasses, forbs, and berry bushes comprise most of the biomass in this community.

- Aronia melanocarpa - Black chokeberry
- Symphoricarpos orbiculatus - Shrew bush
- Rhus arborescens - Whitebine
- Vaccinium angustifolium - Low bush blueberry
- Betula lenta - Sweet Birch
- Tsuga canadensis - Eastern Hemlock
- Nyssa sylvatica - Black tupelo
- Acer rubrum - Red Maple
- Betula populifolia - Grey birch
- Picea mariana - White spruce
- Vaccinium angustifolium - Lowbush blueberry
- Hamamelis virginiana - Witch hazel
- Vitis (grape) - Common grape
- Viburnum acerifolium - Maple-leaved viburnum
- Nyssa sylvatica - Sweet Birch
- Betula populifolia - Grey birch
- Cirsium vulgare - Bull thistle
- Lonicera maackii - Bush honeysuckle
- Deschampsia cespitosa - Crested sedge
- Chasmanthium latifolium - Whorled loosestrife
- Lysimachia quadrifolia - Whorled loosestrife
- Deschampsia cespitosa - Crested sedge
- Vaccinium angustifolium - Lowbush blueberry
- Prunus serotina - Black cherry
- Rubus hispidus - Swamp dewberry
- Fallopia japonica - Japanese knotweed
- Aesculus hippocastanum - Horse chestnut
- Aesculus hippocastanum - Common buckeye
- Crataegus virginiana - Rusty spine
- Lonicera maackii - Bush honeysuckle
- Quercus montana - Chesnut oak
- Nyssa sylvatica - Black tupelo
- Vaccinium angustifolium - Lowbush blueberry
- Clethra alnifolia - Swamp-honeysuckle
- Gaultheria procumbens - Teaberry
- Vaccinium angustifolium - Lowbush blueberry
- Canadian mayflower
- Maianthemum canadense - Canadian mayflower
- Carex pensylvanica - Pennsylvania sedge
- Kalmia angustifolia - Sheep laurel
- Kalmia latifolia - Teaberry
- A. virginiana - Common sorrel
- Vaccinium corymbosum - Highbush blueberry
- Gaultheria procumbens - Teaberry
- Vaccinium angustifolium - Lowbush blueberry
- Kalmia angustifolia - Sheep laurel
- Vaccinium angustifolium - Lowbush blueberry
- Gaultheria procumbens - Teaberry
- Vaccinium angustifolium - Lowbush blueberry
- Kalmia angustifolia - Sheep laurel
- Vaccinium corymbosum - Highbush blueberry
- Gaultheria procumbens - Teaberry
- Vaccinium angustifolium - Lowbush blueberry
- Kalmia angustifolia - Sheep laurel

Urban / Disturbed

[Invasive Species and Conditions to Avoid]

Frequent strip mining, logging, and motor vehicle traffic have damaged soils on the summit of the Woods. This has increased soil erosion and depleted nutrients required by other existing plant communities on site. In their stead, invasives like Arctium minus (common burdock), Cirsium vulgare - Bull thistle, and Lonicera maackii - Bush honeysuckle dominate the landscape.

- Aesculus hippocastanum - Common buckeye
- Crataegus virginiana - Rusty spine
- Lonicera maackii - Bush honeysuckle
- Fallopia japonica - Japanese knotweed
- Ulex europaeus - Clever spurges
- Allaria petiolata - Garlic spurge
- Aruncus vulgaris - Common mayr's
- Aesculus hippocastanum - Horse chestnut
Trailheads into Girty's Woods will connect the Woods with regional greenspace networks, as well as surrounding communities. By using locally sourced materials and low-impact construction methods, the design of these trailheads will highlight the features of the Pittsburgh Low Plateau physiographic region and on-site plant communities.

Site entrances maintain high visibility of all trailhead elements and vistas.

Trail portals signal formal entry and exit into the Woods.

Locally-sourced materials are used as site furnishings and barriers to undesired access.
GIRTY’S WOODS MANAGEMENT CONCEPTS
Phase 1: Irwin Lane Trailhead Design Concept

This action plan proposes that active recreation trails in Girty’s Woods be coupled with staging or gathering areas at trailheads that will inform and orient the public. As Millvale and the Triboro Ecodistrict undergo a sustainability renaissance, universally accessible green spaces that facilitate community and family-oriented activities will be instrumental in building a large, local constituency for sustainability practices.