Headwaters Park

Master Plan

2015

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Contents

Introduction

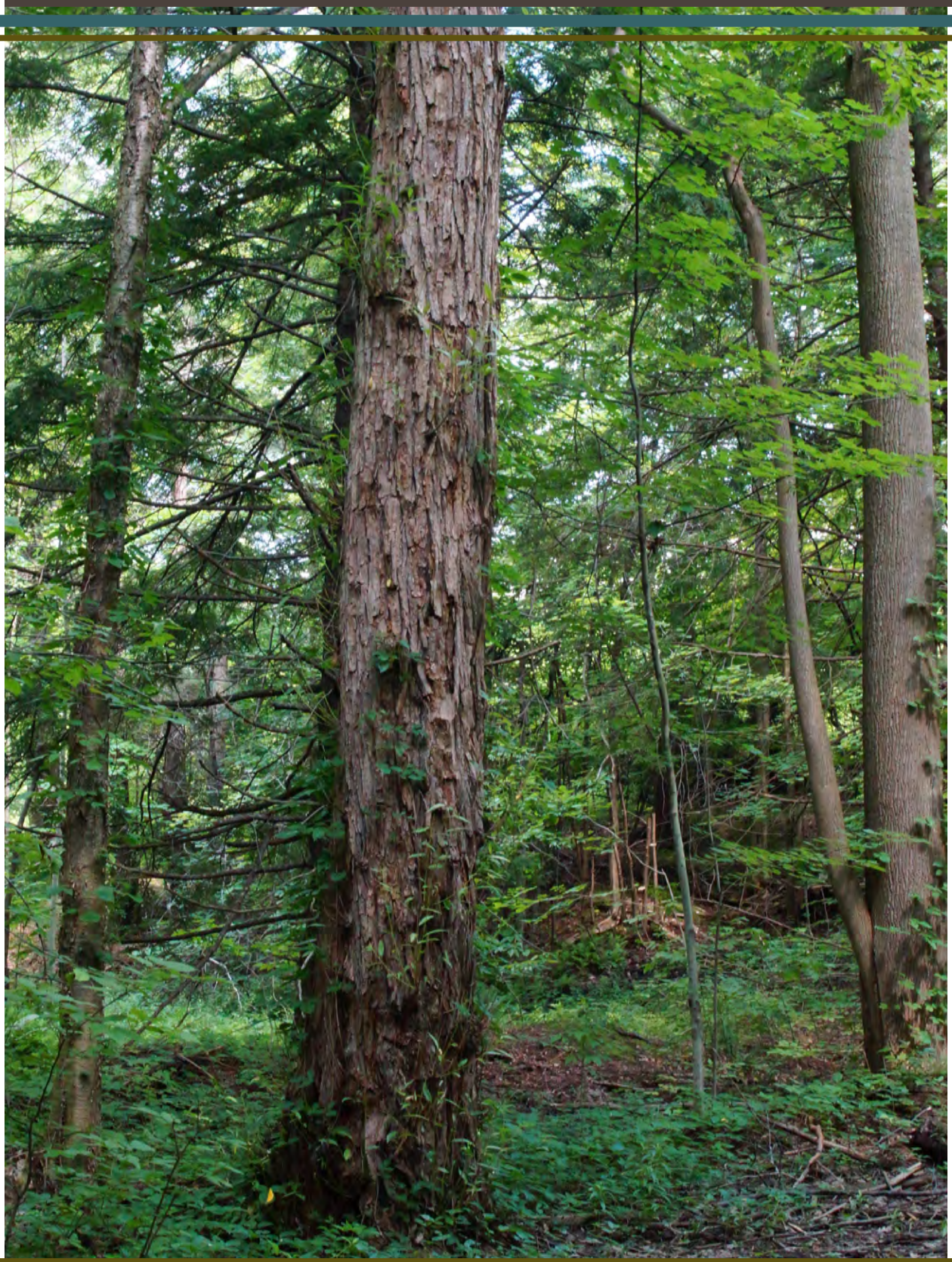
Headwaters Park located in Mill Creek Township south of the City of Erie serves a growing visitor population in Erie County. The park is managed by the Erie County Conservation District (ECCD) out of its headquarters at the Natural Resource Center in the park and is jointly owned by Erie County and the Headwaters NRC Trust. The park was initially created as a county park in the mid-1960's through the acquisition of former forest and farmlands by Erie County, as part of its plans for the development of the Thomas E. Bundy Industrial Park. It was later expanded through the acquisition of lots 12 and 13 and residual lands in the industrial park by the Headwaters NRC Trust for the now current 68 acre park area and 4 acre Resource Center.

Indian Cucumber Root

The ECCD accepted operation and management responsibilities for the park in the late 1990's, developing the park with a 3-mile network of nature trails and trailside features, an educational pavilion, an outdoor classroom, the Natural Resources Center building, parking and extensive best management practices. The park focuses on nature education and nature experiences, serving individual visitors and groups hosted by the ECCD. It displays and interprets best management practices that the ECCD promotes for the development community in the County.

In 2010 the ECCD developed a strategic plan for the organization in which it set forth a series of goals for its management of Headwaters Park. As a result, the ECCD sought and acquired a grant from the Pennsylvania Department of Environmental Protection for the development of a master plan for the park. Environmental Design Group, LLC , landscape architects were engaged in 2013 for the completion of the plan. This report summarizes the outcome of the master planning effort in 2013 and 2014.

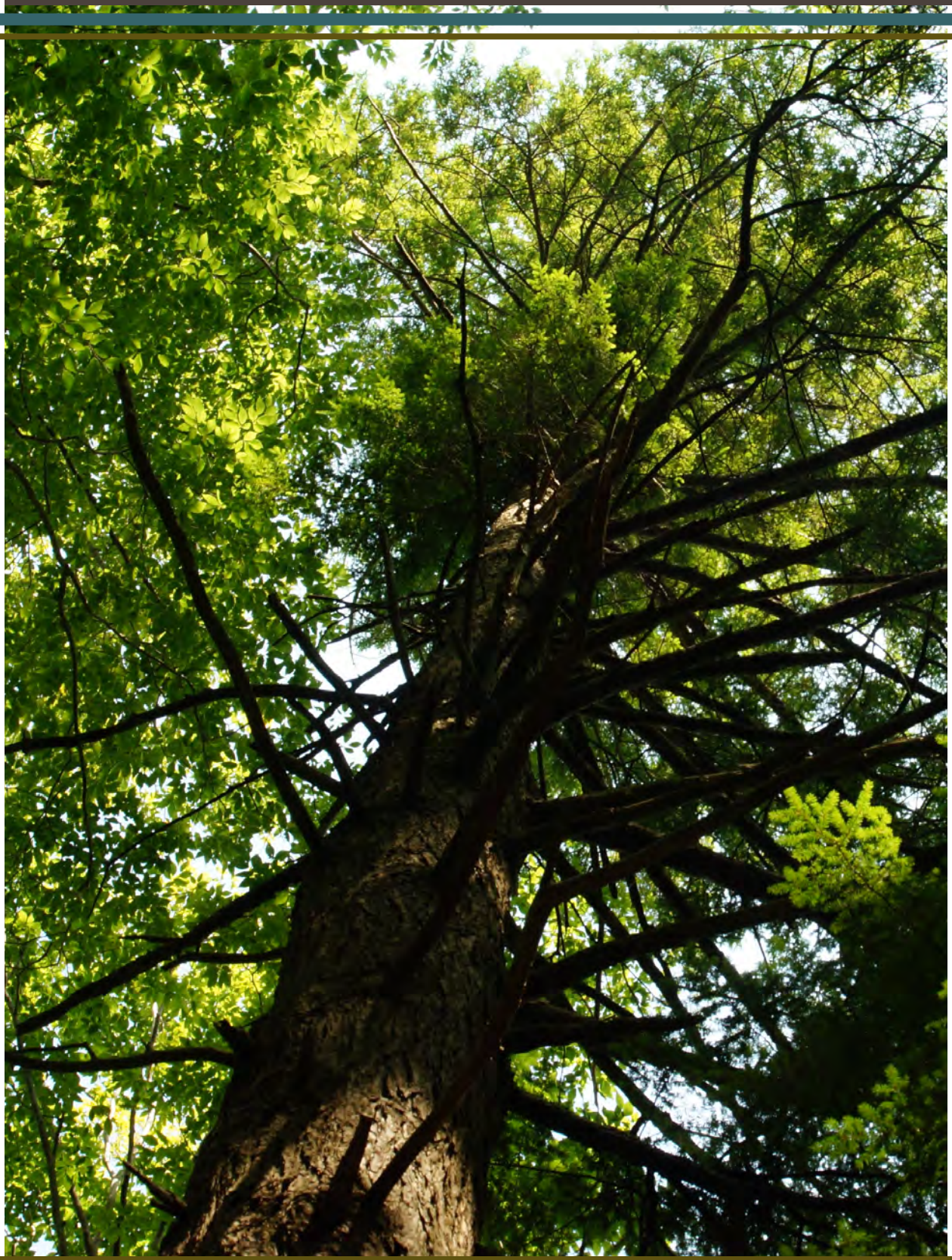
Summary



The plan for Headwaters Park expands on the work begun by the ECCD in creating a nature education facility that connects children and adults with nature and builds a spirit of stewardship of the environment among its visitors. The plan defines a park that is fun, engaging and educational. It takes full advantage of the park site's intrinsic character to reveal an evolutionary landscape. From meadow and wetland to old field and third growth forest to native floodplain and mesic hardwood forest, the park provides access to the full range of habitat succession native to headwaters lands in Erie County.

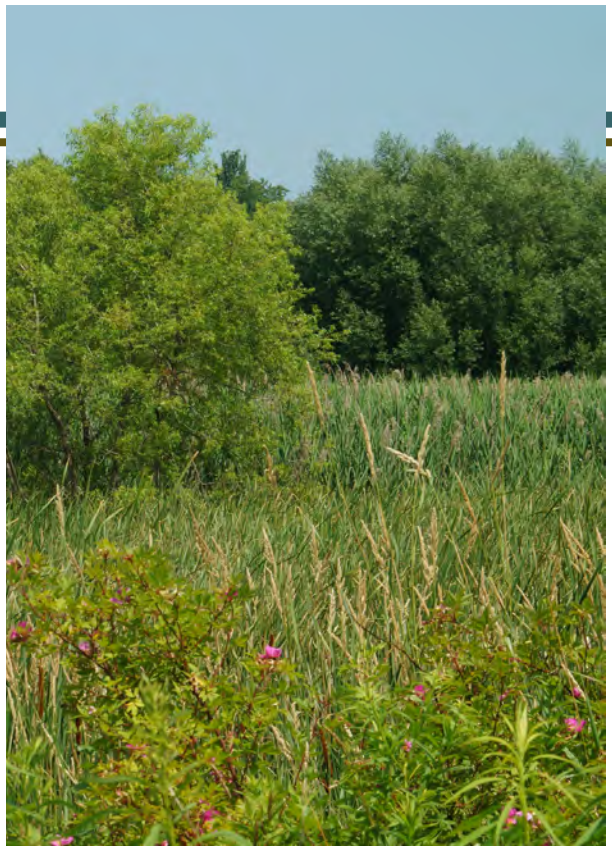
The park's trail system is modified to provide access to each habitat type and to provide opportunities for interpretation, exploration and monitoring. Access is improved for all with improved trail surfaces and grades, new access points for convenience, expanded parking for daily use and events and a focus on evaluating the effects of best management practices being employed in the park. Because the park is host to both large events and individual use, trails and waysides are sized to protect nature, while providing vantage points that are both intimate and accommodating. A forest management strategy is developed for the long-term management of habitat and transition to the planned habitat types. Marginal areas of the park are protected with strategically placed buffers to direct views, improve water quality and enhance the peaceful nature of the environs. Key points of drainage entering the park are further protected by water management features and enhanced wetlands to slow and filter water before reaching the headwaters stream in the park's valley and ultimately Mill Creek and Lake Erie.

Inventory



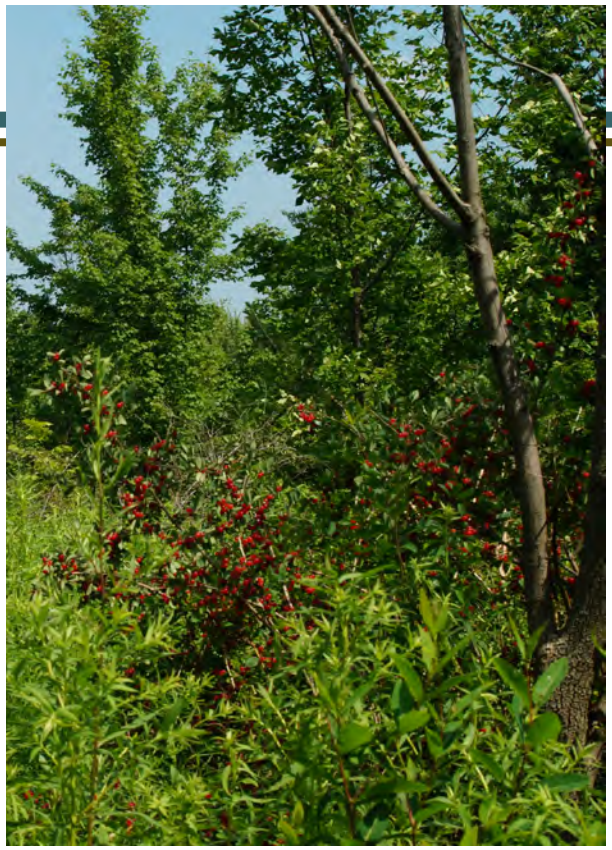
Natural Features

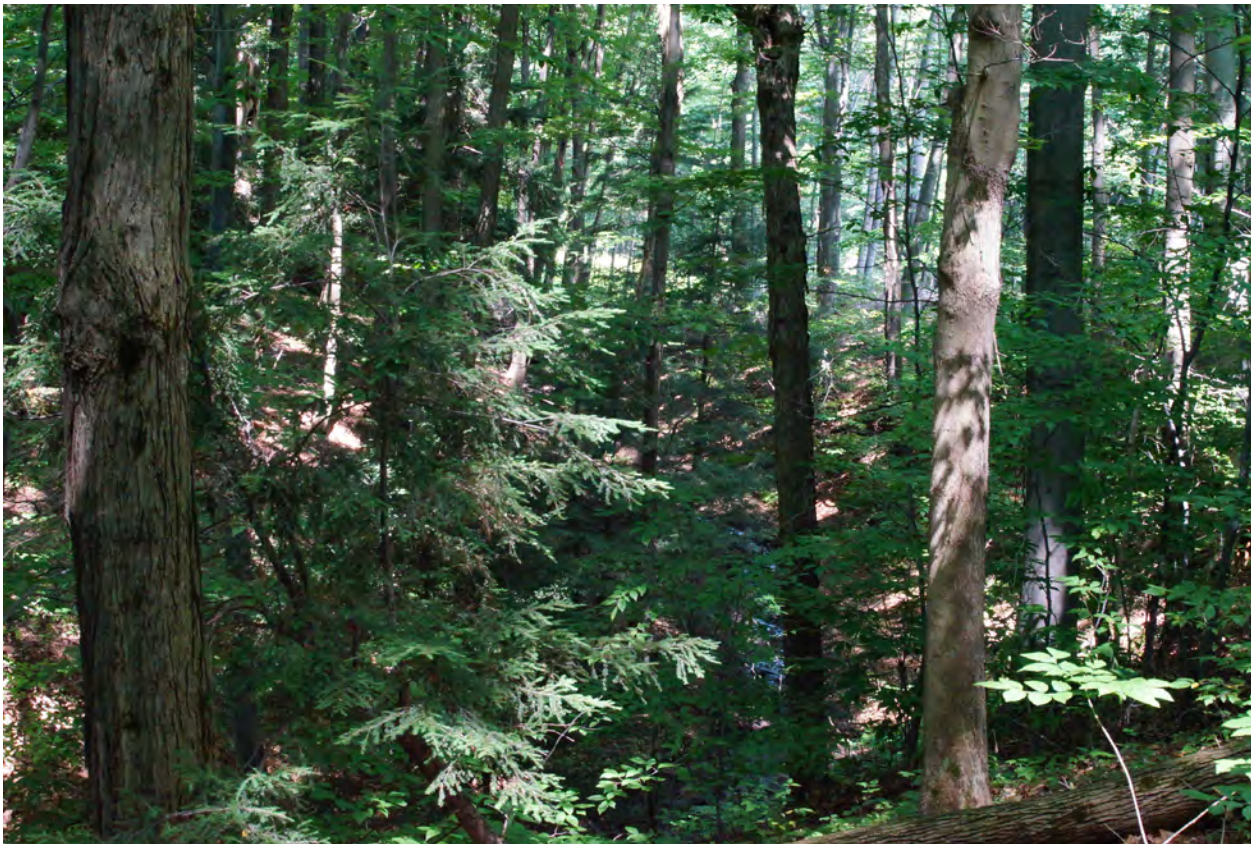
The Park property is located along a headwaters tributary of Mill Creek. The central organizing landscape element is the east-west oriented valley of the tributary. Off-site drainage enters the Park from the east at Wattsburg Road and at low spots of Interstate 90, which runs east to west along the southern boundary of the Park. The easterly valley floor at one time was a farm pond and then a retention basin for the construction of I-90. The western reach of the tributary valley stream is best preserved and intact with several vernal pools, while the stream in the basin area is more entrenched and disconnected from its valley.



The Park rises from the valley toward I- 90 on the south and toward Wager Road and the Bundy Industrial Park on the north. In all there is about 100 feet of rise from the park's low point at its western valley boundary and its highpoint near its southwest corner. The resulting slopes are quite steep in places, creating both scenic beauty and challenges for trail development and access. The landform is mostly intimate and enclosing but there are several vantage points where long views are available of the valley and park natural areas. The setting is mostly tranquil, except for the effect of Interstate 90. There are localized micro-climatic differences in the park that create an interesting and refreshing diversity.

The vegetation patterns are key to the uniqueness of the place. The 72-acre park is a living laboratory of forest succession. One can experience the full range of vegetative succession at the park, from meadow and wetland to old-field and third growth forest to native mature floodplain and hillside hardwood forest. The mature forest segments are most likely a mixed mesophytic hardwood forest, more typical of Appalachian mountain slopes geographically further south and west but that also occur in places on north facing slopes in northwestern Pennsylvania. A mature floodplain forest exists with Hemlock and Yellow Birch dominating, as does a mature hillside forest dominated by Beech and Maple within this complex. The floodplain forest is quite fragile and sensitive to disturbance with Spring ephemerals and vernal pools. The hillside forest has a declining Beech population. There is a particularly scenic steep-walled ravine with Hemlock on the slopes in the park's westerly-most area. Areas previously disturbed by development and farming are slowly reverting in succession. The valley floor itself transitions in succession downstream from the east and the old basin to a transitional Black Willow stand and finally the Hemlock and Yellow Birch dominated floodplain forest at the western boundary. Vegetation is mostly native to the region, except in certain disturbed wetland areas, where Phragmites and narrow-leaf cattail stands have invaded. This diversity is as a result of the varied historic land uses on-site from row-crop, pasture and orchard to logged areas and mostly undisturbed native woodland. Further detail is provided in the Appendix under the Forest Management Strategy.





Soils are mostly poorly drained or tight, producing more runoff than infiltration during rainstorms. Hillside soils are suitable to development of park facilities and reforestation of native plants provided runoff is controlled. Valley floor soils are suitable for passive park development such as nature trails and boardwalks but are subject to periodic inundation and have a naturally high water table, so facilities in the valley floor will require additional base and foundational support in addition to control of drainage.

Adjacent Land Use

The park is located between the Bundy Industrial Park on the north and Interstate - 90 to the south. These areas are intensely developed with extensive paving and rooftops, except for the currently undeveloped industrial park parcels. The adjacent upstream headwaters of the watershed east of Wattsburg Road and south of I-90 are essentially undeveloped with large tracks of forest lands and fields. The immediate downstream property is also undeveloped and is a managed forest very similar in character to the western parklands.

Control of drainage runoff from I-90 and the Bundy Industrial Park is an important consideration for the park's long-term management. There are limited stormwater management controls for the industrial park properties but no water quality controls or adequate buffers. No suitable controls exist for runoff or noise from the Interstate. Spill prevention and other roadway pollution controls are not currently in place. An adjacent fill slope for the industrial park is only partially vegetated with suitable buffer vegetation. Several of the adjacent vacant parcels also project into the park's valley, making management of the valley resource difficult should they become developed.

Existing Park Facilities

The park features a 3-mile network of existing nature trails that pass through many of the habitat types. These are mostly natural surfaced paths with few drainage controls. In 2013 trail improvements were made to improve several trail segments, including short boardwalk sections, drainage culverts at key crossings and trail base improvements. Trails in these improved areas are wider than elsewhere but these trail segments are short and are not directly connected to the main access paths to the trail system from the parking lot.

Elsewhere during the Spring and Fall, surface drainage on many of the existing trails affects footing, as the trails become soft and spongy. Although the majority of trails are well placed to experience the park, a few are either located too close to park edges or are not well placed relative to existing grades. The trail network includes two fords of the stream tributary for maintenance access and pedestrian only trail bridges for pedestrian access across the tributary.

Trail access from the main parking lot to the trail network is poorly developed and inconvenient. No well-defined trailhead arrival point exists for reconnoitering before attempting to enter the park. That point is disconnected and well downhill from the parking lot. Trail access grades are severe and drainage controls are minimal, creating a barrier to access, especially for those with mobility issues. 10-foot wide gravel service drives supplement the trail system and provide maintenance access to the park facilities and a wastewater pump station on the property. These form a loop to Wager Road and connect to the fords across the tributary stream.

The approximately 70-car main parking lot also serves the ECCD Natural Resources Center. It is relatively small for the main park parking lot in addition to the conflicts that are associated with sharing it with the Natural Resources Center. The parking lot was built with infiltration of drainage in mind and so it is built as a cellular reinforced gravel surface. Drainage is not well controlled, little infiltration occurs and the number of actual spaces is reduced because of the lack of lot markers. It is, however, well-positioned to serve the Natural Resources Center and the western end of the park.

The ECCD offers group events that at times overtax the park and its facilities. The ECCD has employed temporary overflow parking and outdoor restroom facilities for such events on adjacent undeveloped industrial park parcels. This relieves some of the pressure on the park, provided conditions are ideal.

The park features trail waysides at key points of interpretation. These include seating areas arrayed for maximum contact between naturalist and visitor. They are used as stations for many of the ECCD events and programs. In addition interpretive displays are located nearby a park feature being interpreted.

The park also features several park buildings that are modern and well appointed for their intended purpose. Central to these is the Natural Resources Center, which is also home to ECCD. It is accessed from the upper level of the main parking lot off Wager Road. The Center has two levels for meeting space, programs and displays, information about the park and administration and maintenance of the park. Equipment storage is located through an overhead door at the lower level for access to the park. That level is also directly connected to the Demonstration Yard for programming convenience. The Educational Pavilion, located near the entry point to the trail system and below the main parking lot, is used for educational programming throughout the year. It is an enclosed, modern structure with overhead doors, making access convenient for outdoor program activities. It is located nearby the water management basin for the main parking lot and the main trail in the valley, creating some potential to relate these features to adjacent pavilion outdoor spaces.

The park also has a program shelter in the park for more direct access to the natural environs. Outdoor steps lead to a streamside learning station and the trail network passes by immediately adjacent to the shelter It is located scenically in a grove of Hemlocks. Several of the trail segments in this section are poorly developed and overly steep, producing maintenance and environmental issues.

The ECCD has installed a number of sustainable practices at the park and Natural Resources Center both to improve environmental conditions and act as examples of best management practices. These include drainage features along the 2013 trail improvements, a geothermal well field in the parking lot, below grade stormwater storage cells under the Educational Pavilion, a naturalized stormwater detention basin adjacent to the pavilion, cellular reinforced aggregate paving in the parking lot, a wind mill for power generation, a rain garden collecting roadway water entering the park off Wager Road and meadow plantings as runoff filters down slope of the parking lot.

Utilities

The park site is served by all the major utilities located on Wager Road. The Natural Resources Center is heated and cooled by its on-site geothermal well field. A wastewater pumping station is located on-site, also serving the Natural Resources Center. A 15-foot utility easement accompanies that facility running east-west on the property through the valley. An existing gas transmission line crosses the property's southwestern corner. An easement is maintained by the utility company in that area. The Base Map in the Appendix outlines adjacent properties, property boundaries and utility easements on the property.

Public Involvement

The planning effort included a number of opportunities to involve the public in helping direct the plan's development. Two public forums were held at the ECCD's Natural Resources Center at the park to solicit input into the desires for park development, concerns for the park's long-term management and interest in educational programming. At each public meeting an introductory presentation was given followed by a forum where all attendees were invited to express their desires, opinions and preferences. The first meeting in the series focused on goals and aspirations while the second focused on plan outcomes as a result of prior input. These were supplemented by a local media article about the planning process and two workshops for ECCD partners, ECCD and Headwaters NRC Trust staff and Board members, park advocates and affiliated agencies. A presentation was followed by a round table discussion by the members attending at each of the workshops. The forums and workshops were held concurrent with the plan's development and were facilitated by Environmental Design Group. A final presentation of the plan was made at an ECCD Board meeting.

Both public forums and partner workshops were well attended and overwhelmingly favorable concerning the park's development as a nature park. Public and partner suggestions were incorporated into the plan. Details of the input received are included in the Appendix of this report.

Park Concept

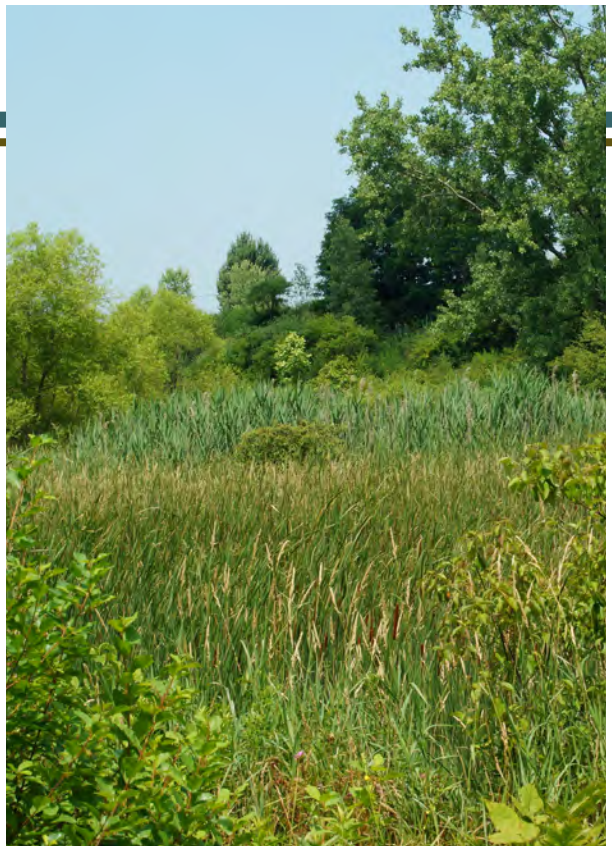
The concept for the park centers on its uniquely diverse pattern of vegetation. Displayed on-site is a living laboratory of forest succession. The plan builds on the interplay between this natural succession and the site's drainage patterns to create a nature education environment for children and adults that closely relates to the environmental stewardship mission of the Erie County Conservation District (ECCD). The plan strives to foster a stable natural environment in which to observe natural processes and the potential for human use to coexist with nature. The park is intended to be a place of exploration and discovery, leading to a better understanding of how one can be enriched by nature while protecting it for future generations.

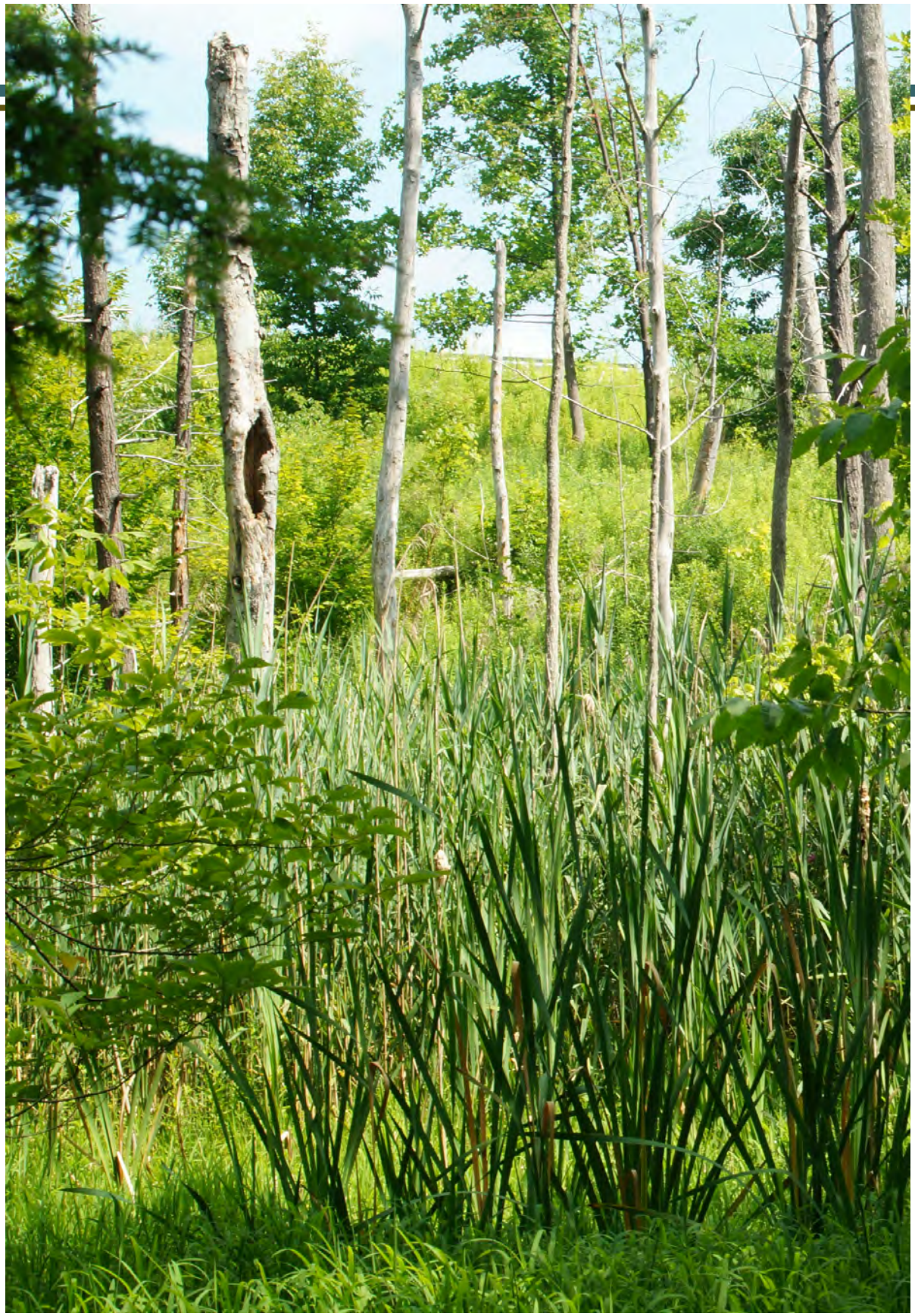
Natural Succession

Essential to the park concept is the forest management strategy that calls for maintaining the forest succession currently seen on-site into the future. The plan recognizes this intrinsically unique character and supports the goal to manage the forest to maintain that diversity. It accomplishes that goal by transitioning existing patterns to reinforce and enhance the quality of habitat types.

The existing cattail and Phragmites wetland in the eastern valley is proposed to be enhanced by restoring the stream's connection to its floodplain and the wetland's water regime, removal of invasive species and enhancing habitat through the diversity of new native plantings.

The adjacent old orchard/meadow is managed to improve diversity of native grasses and forbs and ensure the long-term viability of the trees present. Removal of successional young maples and ash in this area is planned to maintain enough sunlight reaching the meadow floor. The nearby old-field to the west of the old orchard is similarly managed to maintain a stand of native shrubs, grasses and forbs. Pole sized red maple are proposed to be removed in this area to ensure that the old-field environment becomes stable. Montoring of young red maple and ash growth in these areas and periodic harvesting of pole-sized timber is also proposed.





The hillside third growth forest of red maple and ash is proposed to be partly transitioned to the mixed mesophytic hardwood forest that exists at the western end of the hillside. Initially, openings in the canopy are proposed in this area by the removal of ash and pole sized red maple to be replaced with young trees more typical of the existing mature forest. Over time continued removal of red maple trees is proposed to maintain canopy openings for additional mixed hardwood tree plantings. A smaller stand of the red maple third growth forest will be maintained by periodic tree removal, allowing the young red maple saplings in the area to develop.

The mature hardwood forest both in the valley and on the hillside is proposed to be maintained by harvesting declining trees over time and reintroducing native hardwood saplings and understory trees and shrubs that maintain and enhance the forest diversity.

To buffer noise and views from I-90 a 100-foot wide buffer is proposed along the highway. The existing forest edge trail will be relocated outside of the buffer. Native spruce and hemlock are proposed to be interplanted in the forest within 50-feet of the highway right-of-way, while native deciduous understory tree and shrub plantings will supplement the buffer in the remaining 50-feet of the buffer. Selective removal of pole-sized vegetation is planned within the buffer area to open the canopy for the new plantings.

Throughout the managed areas protection of the young trees and shrubs from deer browse will be a necessary management technique.

Watershed-Based Management

The park's watershed extends well beyond its boundaries. The park's tributary stream receives runoff from development properties in Bundy Industrial Park, from Interstate 90 and from undeveloped lands to the east and south of I-90. To effectively manage the park's watershed a holistic approach to watershed management is necessary. Not only park improvements are needed to filter and manage runoff but a watershed-wide coalition of property owners is needed to manage drainage for the benefit of all.

The master plan calls for on-site water quality features to be expanded beyond those currently being employed. These can not only serve to improve water quality and prevent erosion impacts but also serve as models of best management practices for park visitors, property owners and developments in the County.

A series of new features are planned at the Natural Resources Center, including: converting lawn areas to native meadow and shrub borders for better filtration of runoff and paving and drainage changes in the parking area, drives and walks are planned to better infiltrate and direct runoff. The center geothermal field island in the parking lot is modified in the plan as a bioswale, while parking and walks are reconstructed with a variety of porous and conventionally paved surfaces with subsurface drainage to better direct drainage to the bioswale. The bioswale is also connected to an improved rain garden collecting road water and rooftop drainage is collected and directed to the bioswale. The wetland detention area below is enhanced and collects excess runoff from the bioswale for final filtration before entering the stream.

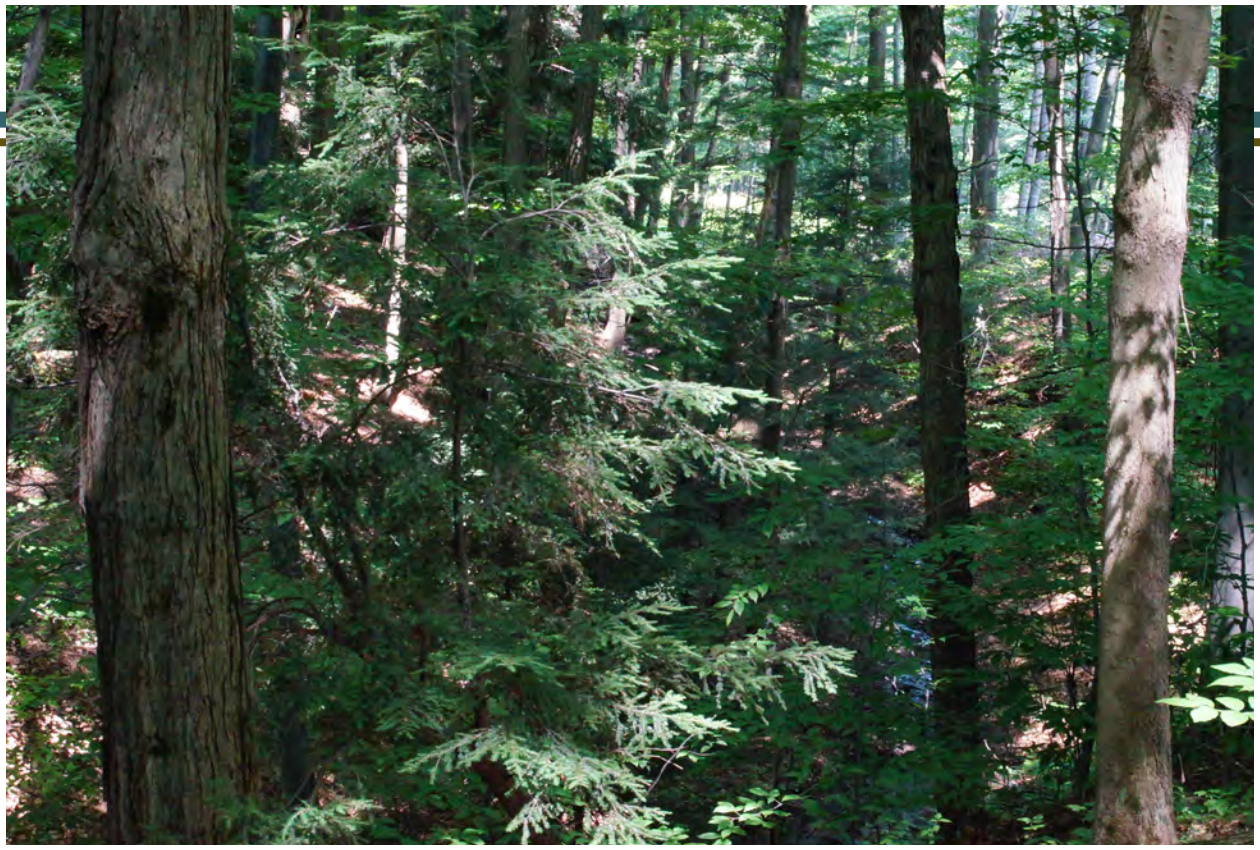
Trailside drainage is a key ingredient for improved year-round park use and to reducing side hill runoff scour and trail maintenance. It is proposed that a series of interconnected low flow/low velocity vegetated swales be formed upslope from nature trails to convey side hill drainage to water bars and culvert crossings and eventually to constructed vernal pools in the valley floor, where infiltration may occur.

The restoration of old basin in the east side of the park as a floodplain wetland is an important natural resource but also an important contributor to improved water quality. As proposed, the tributary stream within the basin will be restored to a natural channel configuration with grade controls to better connect it to its floodplain. The adjacent floodplain will be enhanced with improved vegetation but also graded in spots to provide shallow emergent wetland areas, shallow pools and hummocks, all more typical of a floodplain wetland than the uniformly graded and drained basin that now exists. Shallow pool, emergent wetland and shrub-scrub wetland segments are planned. The wetland will serve to filter drainage entering the park from the east.

To better coordinate efforts outside of the park and within the upstream watershed, it is proposed that the ECCD develop a forum for discussions with property owners and potentially a partnership for management. The ECCD should take a lead role in promoting best management practices, some of which are demonstrated in the park. These might include better drainage buffers adjacent to tributaries, better roadside drainage controls and runoff filters, infiltration zones, bioswales and rain gardens to collect parking lot, drive and rooftop waters, and the like. ECCD could provide the technical expertise to guide property owners in better managing their drainage.

It is proposed that ECCD develop conservation easements on lots in the Bundy Industrial Park backing up to the valley floor to allow shrub buffers to be planted along their south facing fill slope and to allow development of the floodplain wetland.

The plan calls for ECCD work to partner with PennDOT to improve runoff controls on I-90 and S.R. 8 contributing to the park. Two forebays are planned in the park at runoff discharges. These will be designed as spill containment basins that also can serve as runoff filters for road oil and salts. Constructed as stepped wetlands, these features will contain and prefilter road water discharges before entering the newly constructed floodplain wetland complex.



ECCD is committed to long-term improvement of water quality in the watershed. It plans to use the park as a laboratory for studying the effect of best management and other sustainable practices being employed on-site. As part of initial studies, ECCD performed base line observation of water quality and habitat conditions in the park. The plan includes a series of five monitoring stations along the tributary stream and at discharge points into the stream to measure water quality and habitat parameters. These will also serve ECCD well in its educational programming in the park and to encourage visitors to become part of the on-going monitoring. Over time results will help ECCD adjust installed improvements to ensure the best effect possible.

Trails for Exploration and Discovery

At the heart of park enjoyment and enrichment by the visitor is improved trail access to park features. The master plan calls for developing a hierarchy of trails in the park for different purposes and reconfiguration of the trail network for better access to features and a better trail experience.

Access to the trail network from the ECCD/Natural Resources Center parking lot will be improved with a relocated trailhead staging area and kiosk at the parking lot level and a fully accessible connector trail with a porous asphalt surface from the upper parking level to the valley trail at the Education Pavilion. The trail route will be regraded to maintain a 5% maximum grade.

The trail network is improved in several areas for better access and an improved experience. A 2,600 linear foot primary trail, fully accessible to all is planned to connect the ECCD/ Natural Resources Center parking lot with the new Headwaters Park parking lot at Wattsburg Road. Termed the Valley Trail, it is proposed to be 8-feet wide with stabilized surface and berms. In places the trail will have a crushed limestone surface and provide for maintenance access. In the restored valley wetland it will be constructed as a pedestrian-only boardwalk and feature an overlook segment.

Elsewhere, nature trails are enhanced, abandoned or relocated. The trailside drainage previously discussed will offer the trail visitor a better trail surface for year-round use in areas where existing trails are being retained. Several steep trail sections are reconfigured to more gently negotiate grades and better handle trailside drainage. The existing trail against the I-90 R/W fence is being abandoned and converted into the vegetative buffer. The existing trail through the floodplain forest is reconfigured to better protect sensitive valley resources.

Proposed trails are planned to access vantage points or previously inaccessible habitat types, like the hemlock ravine or the old orchard/ meadow area. Nature trail grades will range from 2-10%, and the trails will retain a natural surface, except where drainage controls or maintenance needs require a crushed limestone surface. The nature trails form loops of different lengths to enhance the visitor experience. They are not considered fully accessible, due to the native topography. In all, over 12,200 linear feet of nature trails are included.

Facilities that Enhance the Visitor Experience

Many facilities are already in place in the park to enhance the visitor's enjoyment of the park and to facilitate educational programming. The Natural Resources Center, the Educational Pavilion, the program shelter, trails and main parking lot have already been discussed. The plan calls for retention and enhancement of these facilities in line with ECCD's Strategic Plan. The park is currently open dawn to dusk and that should remain the policy. However, given the number of evening meetings and events at the Natural Resource Center, parking lot and walkway access lighting should be considered, as should security cameras mounted on the building exterior.

Newly configured access is envisioned for the park that relieves some of the pressure on the existing Natural Resources Center parking lot, provides better access from the trailhead parking areas to the trails and creates a Headwaters Park entrance separate from the ECCD/ Natural Resources Center entrance to reduce potential conflicts. It is proposed that a new park entrance from Wattsburg Road (S.R. 8) be developed on lands currently owned by Wendys of Fort Wayne Inc. The

by Wendys of Fort Wayne Inc. The entrance would provide access to the Valley Trail and the newly enhanced floodplain wetland through a new 30-car parking lot. The trailhead features an informational kiosk and an open-air shelter building for picnics and programs.

It is proposed that acquisition or joint use rights be pursued for the property to allow construction of the trailhead parking lot, drive, facilities and trail connections to Wendy's restaurant and the park. The access point on S.R. 8 should be coordinated with PennDot to allow restriping of lanes in the area to permit northbound turns. Should access off Wattsburg Road prove to be difficult to secure, an alternative trailhead parking location is suggested on the plan, as a westerly expansion of the Wendy's parking lot on their adjacent property.

The Wattsburg Road entrance to the park is envisioned as a new public face to greet visitors and improve community awareness of the park. It is at the elevation of the newly configured, fully accessible Valley Trail and directly connected to the newly restored valley wetland. From this entrance the valley wetland becomes the prominent park feature upon arrival to the park. This addition also allows the ECCD to focus the Natural Resources Center entrance on the ECCD's core mission – public education and outreach on conservation practices.

Several enhancements are planned at the Natural Resources Center complex to capitalize on this change. As previously mentioned, reconfigured access and orientation to the trail system from the parking lot is planned. This change makes visitor arrival and orientation more user-friendly. It also better incorporates the Educational Pavilion into the Natural Resources Center complex.

A new restroom building is planned for the park at a new entry plaza off the Natural Resource Center's lower level. The plaza also serves as a staging area for programming that occurs in the building and extends into the demonstration yard. The demonstration yard itself is retained as a flexible space for outdoor exhibits and educational programming. The service drive and overhead door access in this area are improved and made more serviceable.

The complex is proposed to become a focus for demonstration of sustainable practices for the ECCD. Several best management practices are already being employed. These are fine-tuned and expanded to give the visitor to the facility an immersive experience. Porous paving examples, an infiltration bed, a rain garden, an enhanced wetland detention basin, a sophisticated water handling and management system, a natural landscape, energy conservation techniques and water quality monitoring are all part of the plan.

The plan calls for making formal the informal use of adjacent undeveloped industrial park parcels for temporary visitor facilities during ECCD events. It is proposed that a long-term agreement be developed with the County for the undeveloped lots lining the valley's south facing slope for overflow parking and other temporary facilities. Lots 10 and 11 are particularly important for their proximity to the Natural Resources Center and Wager Road.

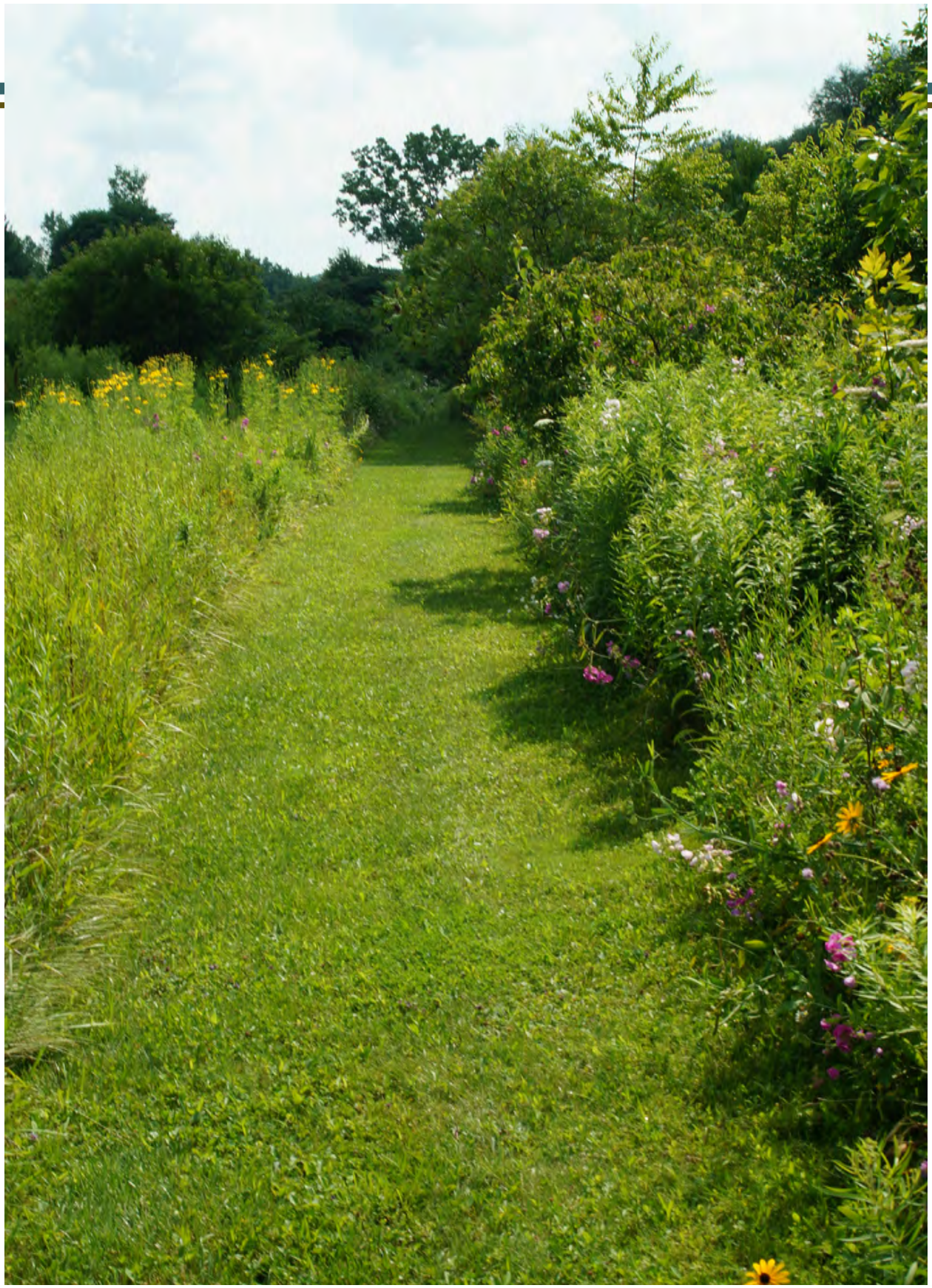
The plan calls for a new nature play area to give children an opportunity for authentic nature-focused play (sand and water play, creative use of natural materials, etc.) in a structured environment. This will supplement the extensive nature exploration opportunities (monitoring stations, wetland and stream overlooks, trailside natural features, boardwalk stations, etc.) made available throughout the park and hopefully help to draw a distinction between play and the stewardship of nature. The planned nature exploration allows exposure to natural environments, discovery of natural processes, habitat and wildlife, while reinforcing a stewardship ethic about the protection of nature.

A nature play zone defined by a low split rail fence is proposed near the Natural Resource Center's lower level with views of the valley and easy access to and visibility from the parking lot and building. Appropriately sized rocks, branches and downed timber will be stockpiled; a sand pit, mounds and flat spots will be shaped and a water hand pump will be provided for digging, building and moving things around. An elevated and canopied timber platform with a viewing station will be built as a lookout over the valley.

Park Maintenance

As mentioned elsewhere in the report, the ECCD operates and manages the park out of its facilities at the park. They currently house maintenance equipment in the lower level of the Natural Resources Building. That arrangement should continue and expanded needs be should be housed in the Education Pavilion, either within the existing structure or as an addition. Access to equipment storage should be provided through the existing overhead doors at the buildings. Maintenance equipment should be trail-worthy and light duty. Equipment should be sized for trail width and load limitations. A Bobcat Skid-Steer Loader, John Deere Gaitor Utility Vehicle, Kubota or other Zero-Turn mower are a few essential pieces of equipment to consider. Attachments may include a side sickle attachment for trailside mowing and brush clearing and a rear mounted blower for leaf removal.

Other than periodic mowing of trail and lawn areas and routine repair of built facilities, the park should be managed with the park's natural succession in mind. In meadow and wetland areas and shrub masses invasive species should be controlled or eliminated by repeated sponge application of glyphosate on new growth (Rodeo, Round-up or other glyphosphate products). Pole sized, dead or diseased timber should be felled and stumps treated or removed prior to supplemental planting in forest areas. Annual mowing of meadow areas will keep invading hardwoods in check and allow sunlight to reach newly emerging meadow forbs and grasses.



Easements and Acquisition

AsThe following properties outside of existing park boundaries are proposed to be incorporated either by fee acquisition or by conservation easement.

Acquisition:

Rear of Lot 5 in the Bundy Industrial Park – Wendys of Fort Wayne, Inc.

Lots 10 and 11 in the Bundy Industrial Park – Greater Erie Industrial Development Corp.

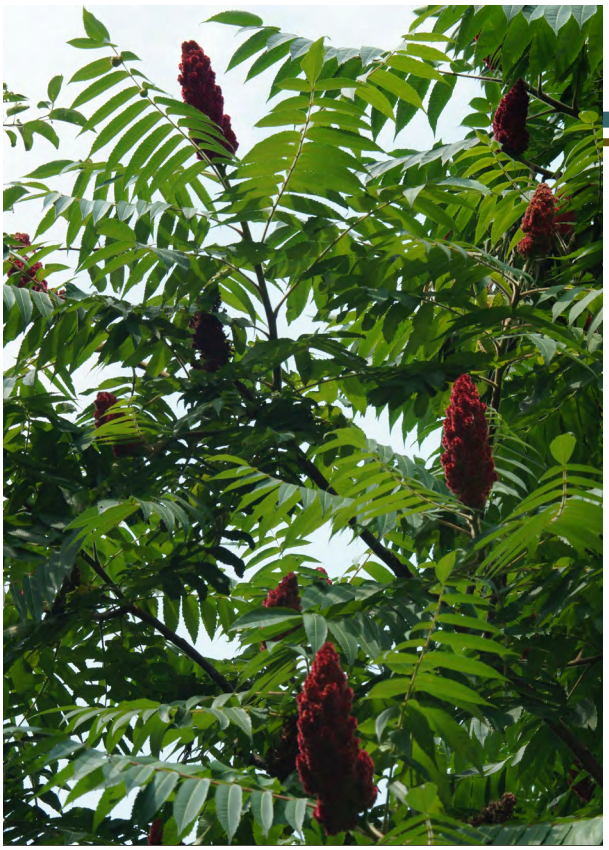
Conservation Easements:

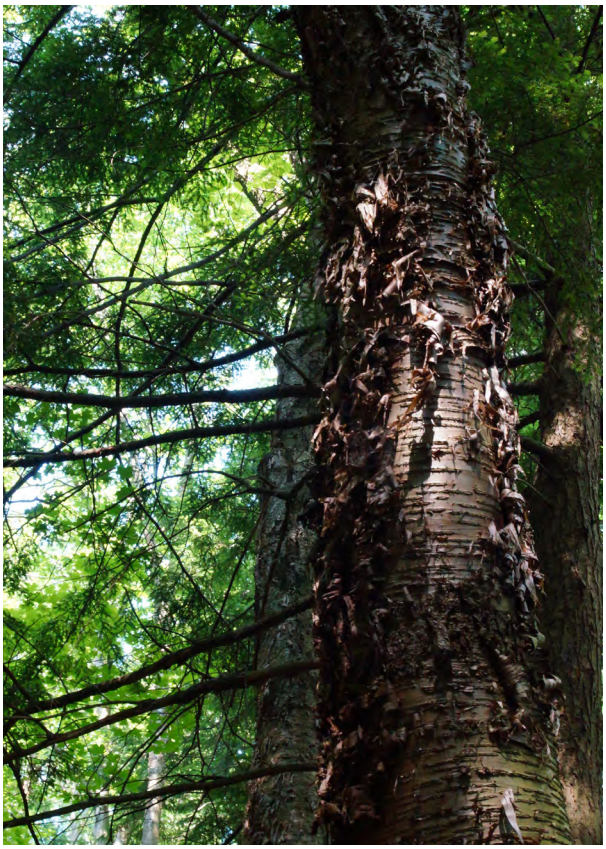
South-facing hillside slope Lot 15 in the Bundy Industrial Park - Erie Manufacturing Co.

Rear of Lot 9 in the Bundy Industrial Park – Hans C. Blatter

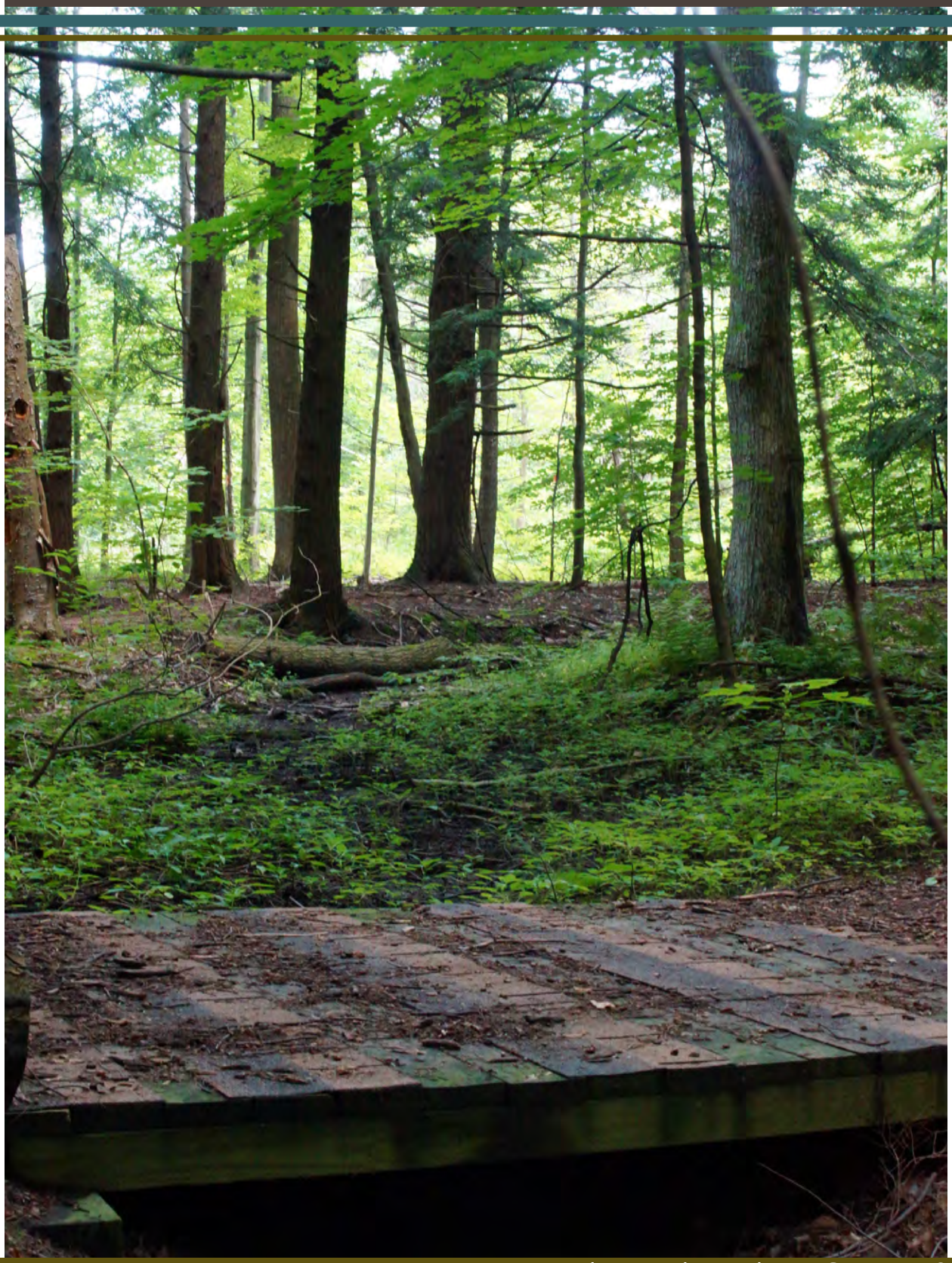
Rear of Lots 7 and 8 in the Bundy Industrial Park – Greater Erie Industrial Development Corp.

Rear of Lot 6 in the Bundy Industrial Park – Wendys of Fort Wayne, Inc.





Implementation and Next Steps



A suggested list of improvements was developed by ECCD upon completion of the planning process. It may be found in the Appendix. That list was used in a planning session to identify priorities for initial action. Initial action items in order of importance include:

1. Acquiring grant for baseline water quality/habitat data and property boundary survey
2. Develop hunting/trapping policy for park
3. Acquiring PennDot permit for constructing the S.R. 8-Wattsburg Road entrance
4. Acquiring ownership and/or use agreement with Wendys of Fort Wayne, Inc. for trailhead and facilities
5. Acquiring ownership of Lots 10 & 11 in the Bundy Industrial Park
6. Acquiring conservation easements for the remaining lots in the Bundy Industrial Park
7. Developing partnership alliance with adjoining property owners in the watershed
8. Developing a plan for water quality enhancements of off-site water entering the park
9. Acquiring grant for invasive species control
10. Developing agreement with PennDot for construction of forebay spill containment features
11. Acquiring grant to Construct new trail access from the Natural Resources Center parking lot to the Educational Pavilion
12. Constructing priority trailside drainage controls
13. Acquiring grant for planting buffer along I- 90
14. Removing priority pole-sized timber to create openings in the third growth forest canopy/sapling plantings