

Black Run Preserve
Conceptual Trails Master Plan
Winter 2013/2014



Prepared For:
Black Run Preserve Board of Trustees

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Report Overview & Project Goals

Friends of Black Run Preserve contacted IMBA Trail Solutions and Applied Trails Research in June of 2013. The Friends of Black Run Preserve were seeking a master plan and guidance in the construction and maintenance of future trails.

A site visit was conducted from October 22nd through October 24th, 2013. The site visit consisted of four major components:

1. Kick-off meeting and initial site visit with John Volpa & Jim Rosenthal (10/22)
2. Public meeting to discuss plans for the Black Run Preserve (BRP) (10/23)
3. Scouting of the site and surrounding terrain for trail planning (10/22—10/24)
4. Meeting: Friends of Black Run Preserve (FBRP) board attended by Jeremy Wimpey, Rhonda Ward (Pinelands Commission Representative, Trail Crew Chair Joseph Michiels, and Board Members: Giulianelli, Giannoti, Isham, Rosenthal, Volpa and a Pineland Preservation Alliance (PPA) representative (10/24)

The report that follows is a culmination of information gathered during the above tasks, subsequent follow up communication, and further analyses of the landscape for trail system improvement and development. There are a variety of opportunities and constraints present at BRP, these include: proximity to suburban development, legacy uses of the landscape and trails, wetlands, sandy soils, strong community partnerships, and multiple governing agencies. We cover the details related to each of these and make suggestions for capitalizing upon opportunities and working with constraints to develop trails to support sustainable high-quality recreation and conservation experiences within the preserve.

The FBRP board's input coupled with the comments and discussion from the public meeting indicate a need to further develop the recreation infrastructure on the site to meet several related goals:

- Increase awareness of the BRP
- Increase utility of current trail system for recreation and interpretation



- Develop additional trails to complement BRP's landscape, conservation and management values
- Curb illegal uses (e.g., hunting, off-road vehicle (ORV) use, and dumping)

Planning maps presented in the appendices will aid in your use of this report and illustrate how several of these opportunities and constraints interact within the boundaries of the BRP. A follow up visit from IMBA staff in the spring of 2014 will focus on trail maintenance and construction at BRP. The FBRP board is currently working to permit this activity, and should continue to engage IMBA as this moves forward.

This report focuses primarily on trail system needs which couple directly with user needs and desires, as well as FBRP board management and goals. This report is meant to be a guide for the FBRP board to further develop its trail system infrastructure. The FBRP board will need to weigh information in this report against its internal plans, budgets and stated goals in order to effectively and efficiently move forward with trail system development as well as meeting organizational goals.



Opportunities & Constraints

Opportunities

- *Wetlands* – The existing and proposed routes in the BRP create a unique trail experience showcasing the Pine Barrens ecology. The extra care required to balance user experience, park needs and regulatory controls will help shape the BRP for years to come.
- *Topography* – While sometimes presenting difficulties for trail design and construction, the terrain in and around the BRP offers a diverse and well-rounded outdoor recreation experience. The high points, wetlands and sandy soil all create a unique outdoor experience. The lands just south of and adjacent to Bortons Road are unique within the preserve as they provide some of the greater topographic relief and grade.
- *Beauty* – The existing trails and proposed trails within the Black Run Preserve meander through Pine Barrens forest, wetlands, streams and old cranberry bogs. These areas may host a variety of threatened and endangered plant and animal species which may influence the extent of any future infrastructure or trails. These areas showcase the natural beauty of the area, allowing trail users to experience the unique character of the local ecology.
- *Engaged Communities* – One of the keys to a successful and vibrant preserve and trail system is a broad supporting community. The FBRP is a passionate group of volunteers whose aim is to support the Evesham Township community in being good stewards of the Preserve while helping people to enjoy its many beauties through hiking, school field trips, biking, bird watching and other forms of compatible recreation.



- *Partnerships* – Partnerships with local user groups, Evesham Township, Evesham Municipal Utilities Authority (MUA), Pinelands Preservation Alliance (PPA), Rancocas Conservancy, and surrounding schools have helped create a solid base for bringing positive attention to the park. Continued expansion of the outreach will help create more opportunities for both formal and informal partnerships.

Constraints

- *Soils* – The terrain and soils in the Black Run Preserve are a mix of sand and fine sand. While these soils lend themselves very well to drainage, they create challenging terrain in which to build trails. Care needs to be taken during trail design and construction to minimize trail alignments and characteristics that will lead to ongoing maintenance and erosion issues.
- *Wetlands* – The existing and some proposed trails in the BRP are in or near wetlands and within a 300' wetlands buffer. Extra care and regulatory controls will need to be addressed when planning for existing and future uses in the Preserve. The FBRP board is currently working with the Pinelands Commission (PC) and should continue to engage them as permitting and planning for trail construction move forward.
- *Legacy Uses* – The historical uses in the BRP have been varied and left their mark on the landscape. From legal wastewater discharge, an illegal wastewater pipeline, dumping, hunting, ORV use, hiking and biking, all uses have shaped how users interface with the preserve. Educating users on the accepted uses in the park, creating barriers to deter illegal activities and working to revive and showcase the unique Pine Barrens ecology will conserve the landscape for future generations.



- *Multiple Land Managers* – Evesham Township owns the open space that makes up the Preserve while the MUA has property easements for its sewer lines running through the Preserve from King’s Grant to its 35+ acre effluent basin area in the Aerohaven Property section of the Preserve. Two legacy MUA retention basins require cooperation between the Township, MUA, and the FBRP to be re-graded and restored to a Pine Barrens upland community. The needs of all managers need to be communicated clearly and balanced within a collaborative plan for effective and efficient stewardship and operation of BRP.



Existing Conditions & Proposed Trail System Additions

Existing System



The current formal trail system at Black Run Preserve.

The current formal trail system at BRP consists of paint- and plastic-blazed trails totaling around eight miles. Most of these trails are in the central portion of BRP and are adjacent to old cranberry bogs utilizing earthworks and old roads as their tread corridor. Trails are "named" by color, and signage is minimal. Conditions vary from highly developed (green trail) with surfacing, engineered bridges and fencing, to minimally developed native surfaces more like traditional singletrack (portions of the red trail).

Trailheads are not formalized and most users access the BRP from adjacent residential developments or parking along Kettle Run Road towards the north-central end of the BRP property. Parking is limited and access on/off of Kettle Run Road can be difficult



during high traffic times of the day. A variety of signage welcomes visitors to the BRP in the area of this informal trailhead.

In addition to the existing marked trail system, there are numerous visitor-created informal trails within BRP, many providing access to/from adjacent residential developments, and others areas of the BRP. Use on these trails seems to be primarily related to exploration, access and trail based recreation with a few notable exceptions: hunting and camping activity.

Formal trails on BRP range in width from narrow singletrack paths (16 inch width) to active natural surface roads (10+ feet), developed through visitor use and opportunistic adoption of access roads and utility corridors. None of the trails on the BRP appear to have been formally designed and built as recreational trails. Condition of the trails varies depending on use and alignment to the local topography, with trails being used by motorized vehicles and fall-aligned trails suffering the most erosion and degraded conditions. Several sections of the wider marked trails continue to be used as roads that see active full size vehicle use (both illegal and MUA access); as a result, portions of these trails are sub-grade and drain poorly, causing trail widening and less than desirable trail user experiences where standing water and mud limit travel.

Recommendations

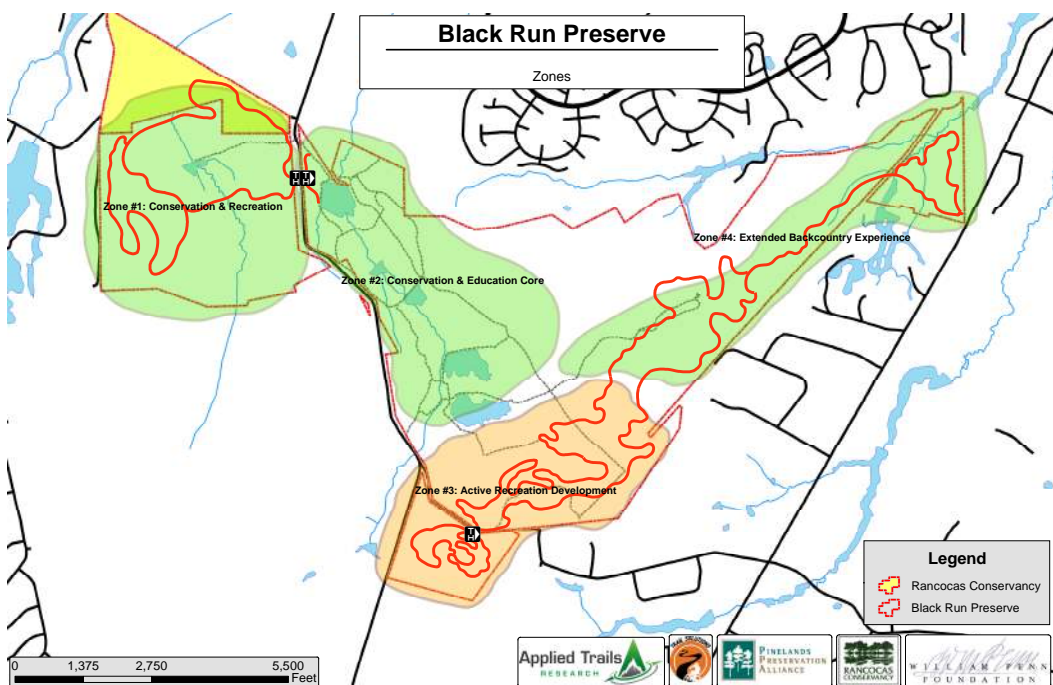
Based upon the results of the Visioning Event, on site fieldwork, and FBRP Board input propose the following four zones within the BRP are proposed: Based upon the results of the Visioning Event, on site field work, and FBRP Board input we propose the following four zones within the BRP:

Zone #1. Conservation and Recreation. A few additional trails should be developed in this zone to provide greater access to the BRP west of Kettle Run Road. These multi-use trails would include wildlife viewing areas along the bogs. These new trails would cross the west branch of the Black Run stream and its legacy cranberry bogs, creating a longer looping opportunity for trail runners and users looking for a longer excursion within the Preserve. Many users expressed these desires during the public meeting. The maps in the appendix show conceptual corridors for the development of these trails. Further field design and investigation will be necessary to



finalize trail location and actual costs will vary depending on the construction requirements the terrain and permitting processes will demand. Cooperation with the Rancocas Conservancy will be key in this area.

Zone #2. Conservation and Education Core. This area holds the existing trail system. The following are priorities for this area: trailhead formalization, an updated signage program, installing bollards and/or cables to deter illegal vehicle access, enforcement to curb illegal ORV use, maintenance activities to improve drainage where standing water and mud occur, improvement of bridges, and improved navigational signage and blazing. Adding at least one Americans with Disabilities Act (ADA) trail should be a priority. Additional emphasis could be placed on improving the system to compliment conservation goals, including interpretive signage and programming developments with structures (e.g. piers, blinds, and viewshed management) to enhance wildlife viewing opportunities on the cranberry bogs.



BRP Recommended Trail Zones



Conservation Core updates and Development

Priorities for the existing system include: trailhead formalization, an updated signage program, enforcement to curb illegal ORV use, maintenance activities to improve drainage where standing water and mud occur, improvement of bridge conditions, and improved navigational signage and blazing. Additional emphasis could be placed on improving the system to complement conservation goals, including interpretive signage and programming developments with structures (e.g. piers, blinds, and viewshed management) to enhance wildlife viewing opportunities on the cranberry bogs.

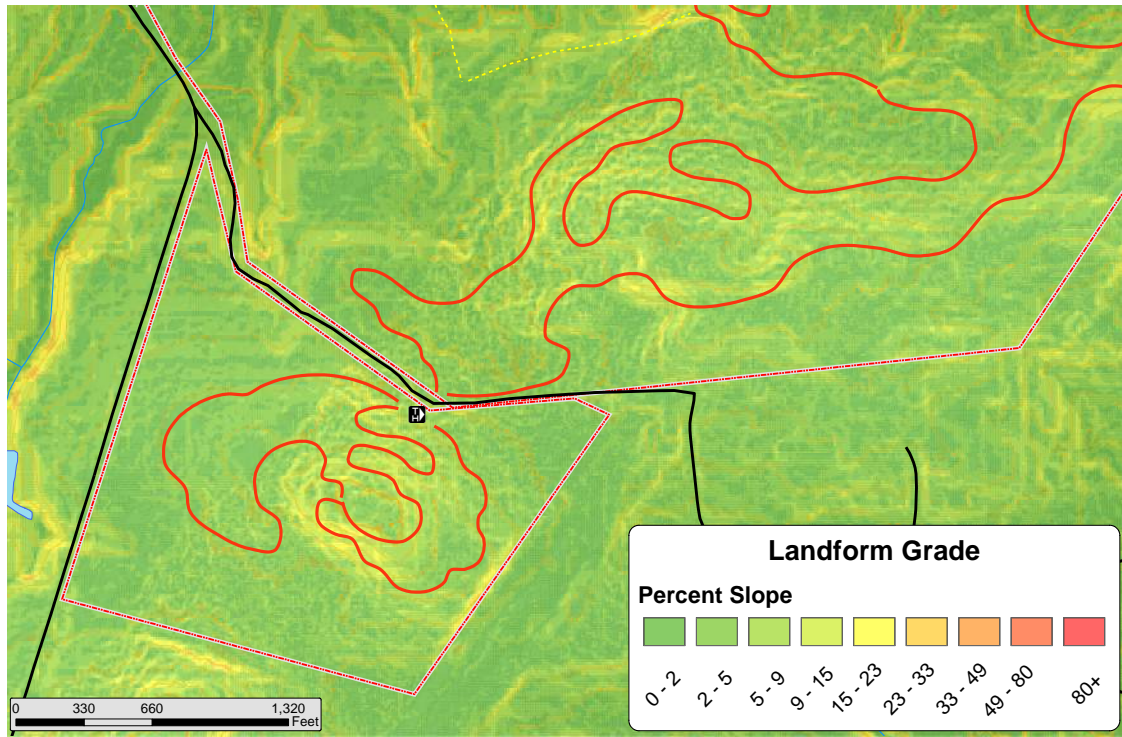
A few additional trails should be developed in the conservation core regions to provide access to areas of the BRP west of Kettle Run Road, and to create a longer looping opportunity for trail runners and users looking for a longer excursion within the BRP. Many users expressed these desires during the public meeting. The maps in the appendix show conceptual corridors for the development of these trails. Further field design and investigation will be necessary to finalize trail locations, and actual costs will vary depending on the construction requirements the terrain and permitting processes will demand.

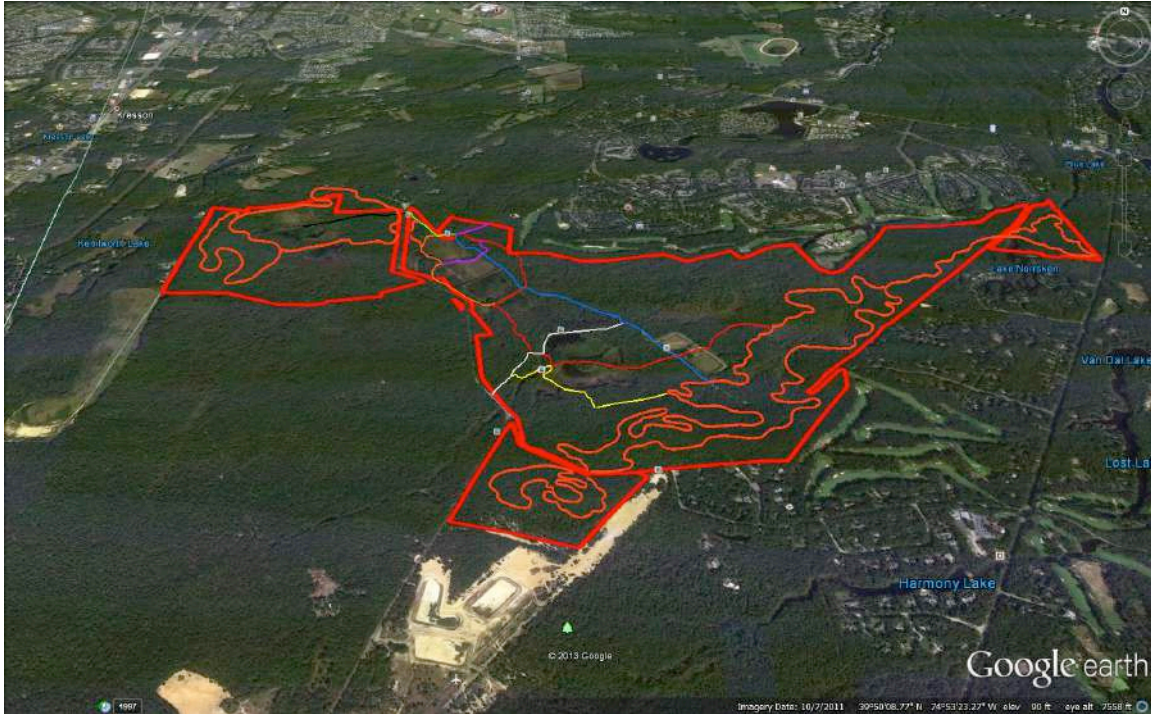
Finally, consideration should be given to providing an accessible trail connecting a new formal trailhead to one or more of the cranberry bog dikes. The existing green trail provides limited ADA accessibility for approximately .25 miles. Additionally, an ADA trail will need to tie directly into a formally developed accessible trailhead. Future development could provide a looping opportunity with high-value conservation and interpretation experiences around the northern-most cranberry bog on the east side of Kettle Run Road.

Zone #3. Active Recreation Development. On this zone we have recommended the creation of about 5 miles of trail run and mountain bike specific trails to promote additional use and provide an additional draw for the BRP. This trail system is focused around the proposed secondary trailhead on Borton's road and in the area where much of the dumping and ORV use is currently prevalent. The terrain in this area is some of the steepest and highest in the BRP; consequently this area is also outside of the 300' wetland buffer that mandates additional permitting and process for development. The BRP should engage PPA and state level regulatory folks on the development in this region, but it is



anticipated that trail and trailhead development in this area will have fewer restrictions and requirements that will ease the cost of construction.





The loops we have shown here provide for an interface between the conservation core trail system of the BRP and the proposed active recreation trails. The active recreation trails will incorporate directional trails on the "peak" south of Borton's Road to provide a single climbing leg and two return legs that provide different downhill experiences for users. This combination with additional bi-directional stacked loops on the north side of Borton's Road will provide for a compact trail system that provides longer trail experiences than the stated mileage would suggest. Due to the soils located on the site, specialized construction including minimal grades, insloped turns and potential surfacing will be required to create sustainable and enjoyable trails.

Zone #4, Extended Backcountry Experience. This zone will utilize the northeast section of the Preserve and provide a longer trail experience for those who desire a sustained aerobic activity level. It would also connect with trails from Zones 2 and 3.



Footbridges

Footbridges in the BRP require special attention. These structures provide access and also expose visitors to risk. Existing bridges on the property range from a new engineered structure (green trail) to a single plank set on the banks of a creek (black trail). Other structures functioning as bridges include scrap lumber and pallets. These structures need to be brought up to a certain standard that will provide for safe use and durable access to cross wet areas as necessary. Several recent outdoor-oriented youth organization projects have created some of the more appropriate bridges on the BRP; continued projects by these organizations can augment in-house replacement of bridges on the existing trail system.



BRP Bridges

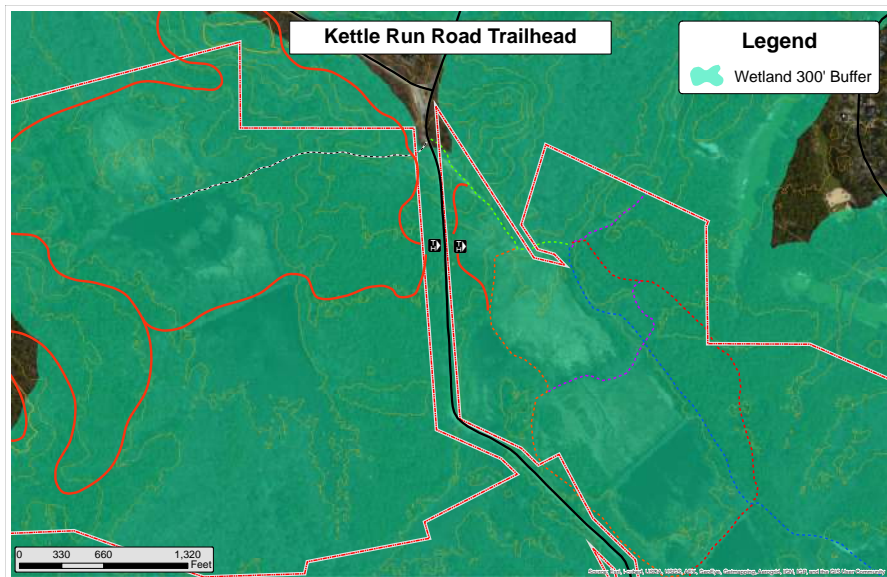


Trailhead formalization

Currently there is no formal trailhead access point for the BRP; users enter and depart the BRP from several points along Kettle Run Road and Bortons Road in addition to extensive visitor-created trails from adjoining residential areas. The FBRP board needs to formalize access to the preserve to increase visitors' awareness of the property boundaries and to help curb unwanted behaviors and uses. The signage program recommendations below address some of the need to formalize access and sign boundaries, but official development of a trailheads are also needed. Both the public and the FBRP board spoke to the need to provide safe formalized access to the Preserve.

Due to the need to address wetland and Pinelands conservation regulations, there are several barriers to formal parking and trailhead development. We have selected a primary trailhead straddling Kettle Run Road near the current informal trailhead. This location is well within the 300' buffer from NHD wetlands and therefore will require additional environmental work and permitting for development. The "straddle" design (parking on both sides of the road) allows for safe and easy entry/exit from either travel lane, and may have some advantages related to the permitting processes. It is recommended to work with the Pinelands Commission to plan this formal trailhead with possible inclusion of vault toilets, refuse and recycling facilities using low impact construction and design elements.

Porous surfacing of parking lots, and hydrological sound management of storm water during and after construction need to be considered and integrated into these

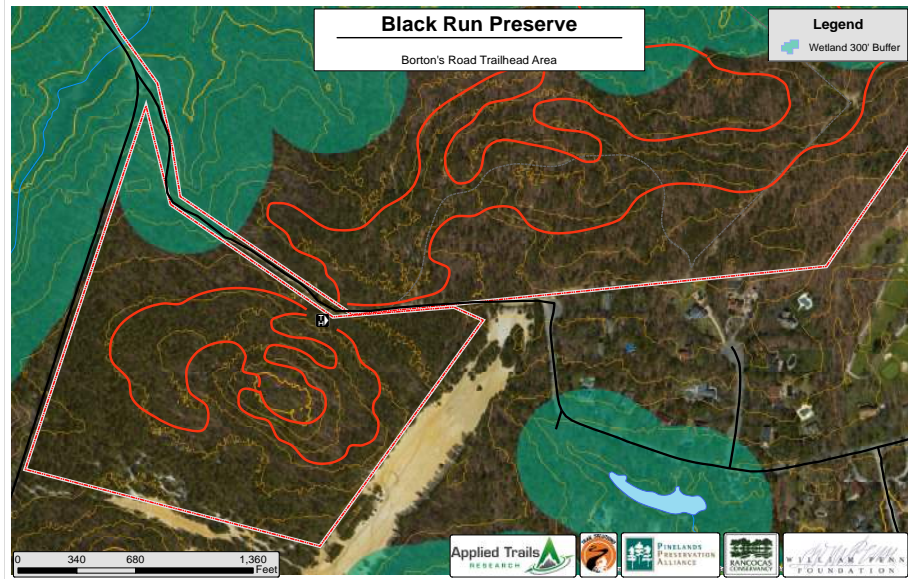




designs. The actual size of the parking facility will depend on the Pinelands Commission and state regulations for development, but a 15-30 vehicle capacity within the two lots straddling Kettle Run Road is recommended.

Bisected Trailhead

We recommend that a secondary trailhead be developed along with the active recreation trail system on the southern extent of the BRP. This trailhead could be less formal than the primary trailhead (e.g., no restrooms or refuse/recycling)



and should accommodate 15-30 vehicles (15-60 trail users). Development of this trailhead should again be coordinated with state and Pinelands Commission staff to comply with regulations; however, this location appears to be outside of the 300' wetland buffer.

Signage

An updated and consistent signage program will complement the FBRP board's desire to build awareness of the BRP, aid in curbing illegal activities, improve visitor experiences, and provide opportunities for education and conservation messaging. The current signage is limited and grassroots in appearance; these signs are filling a need but there is much room for improvement. Several blaze colors currently used are difficult to see on trees (white, black) and can be difficult to distinguish from one another (red & orange). These blazing related issues can confuse users; additionally, the current trail naming conventions (trails are named after the color of their blaze and some are discontinuous)



detract from navigational ease. We recommend adopting names for each trail that highlight the values and resources at the BRP, and phasing out the use of several colors of blaze including black, white, and orange.

To aid in navigation we recommend installing signage that includes these trail names and directional indicators at key junctions. Signage should indicate the direction of the nearest parking/trailhead or other access nodes (e.g. Kettle Run Road Parking Lot) to aid visitors in returning to their vehicles or exiting the



Simple Carsonite post with name

BRP when desired. As a part of programming, the BRP can incorporate varied loops which

utilize multiple named trails to provide a desired recreation experience. For example, a short interpretive loop could be created by using the current green, blue, purple and orange trails around the northernmost bog; a larger loop for birdwatchers may meander through the bogs and then extend deeper into the preserve before returning via different trails. These recreation specific loops can be named and mapped over top of the trail system allowing visitors to access part or all of a loop and create their own experiences. Interpretive and directional signage along the loops should be installed to aid in navigation and provide relevant information about the

BRP.

On the active recreation focused portion of the trail system, signage can be much more minimal and consist of blazing, directional and navigation signage at junctions with a trailhead kiosk with maps and regulations. We have provided several examples of



Sign utilizing maps and wayfinding



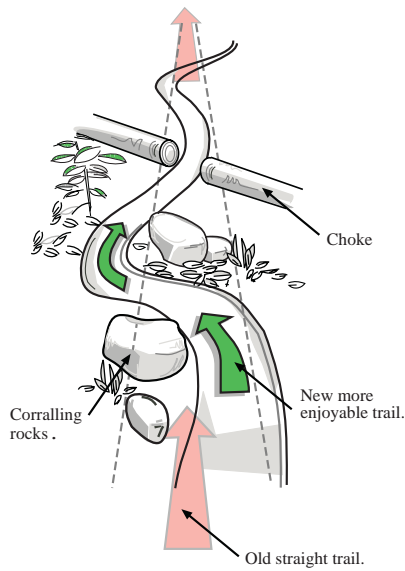
signage in the appendix that we believe will assist the FBRP Board to select and develop signage to address the above stated goals.

Discouraging Illegal Uses

Eliminating legacy and depreciative activities such as hunting, dumping and ORV use at BRP will present one of the biggest challenges for the FBRP. Successful elimination of these unwanted behaviors will take a multi-faceted approach implemented by dedicated staff and volunteers willing to work for years to curb these activities. In addition to current signage, volunteer advocacy and



Locating steel bollards with dense vegetation and rocks helps deter unwanted use



outreach, there are a few tools that land managers can use to deter these activities. Gates, bollards, fencing and other structures can be installed along the trail system to "block" ORV use and access to popular dumping and hunting sites. These structures will be most effective if accompanied by signage that explains the reason for the closure, and encourages users to comply with regulations on the BRP. On sections of trail that are currently road width, yet are not needed by MUA or the township for vehicle access, we recommend that the FBRP Board implement road to trail conversion (R2T). R2T is accomplished by narrowing the existing tread and



corridor along an existing road corridor. This process is analogous to placing a meandering narrow trail on the existing corridor and restoring and re-naturalizing the rest of the corridor. The resultant trail will deter ORV use and should incorporate sustainable design principles (drainage, grades and surface) while providing for a more desirable recreation experience with improved natural conditions adjacent to the trail.

Additional restoration opportunities can help to deter dumping and illegal uses. Restoration of the Aerohaven property to natural conditions could augment the efficacy of the FBRP Board's efforts to reduce ORV use. Clean up and restoration at other sites that show evidence of dumping and other unwanted activity (e.g. campfires) will aid in reduction of these activities as well.

We recommend coordinating efforts with MUA to control MUA access routes to ensure they still have the access they require for maintenance of their infrastructure on the property, but deter illegal entry. Additional deterrents include the use of wildlife cameras to document dumping activities and illegal ORV use. This action should be undertaken with local law enforcement cooperation and some media attention. A coordinated message in the form of signage, physical barriers, increased enforcement and electronic monitoring will go a long way to curb illegal uses. The expansion of the trail system to put more desired/allowed use in the southern portion of the BRP may also aid in the reduction of these illegal and undesired uses of the Preserve. Increased legal recreational use has been shown to "crowd out" illegal or unwanted use in many parks and protected areas. Users that observe illegal use are likely to report it to authorities, and users partaking in illegal activities often will avoid the presence of other users.



Recommended Phasing

Phase I

Phase I focuses on the development of a managed open space along with increased community buy in and support.

- Closure to ORV traffic (work with MUA & Evesham Township to plan)
 - Bollards/blockage
 - Signage
 - Wildlife cameras to capture plates/times
 - Increased Police presence & enforcement
 - Road to trail conversion (narrowing to prevent full size use)
- Signage program
 - To complement conservation via education/interpretation
 - To aid in navigation
 - To formalize and promote the preserve
 - Additional signage on trails into preserve from adjacent residential areas
- Continued community development
 - Develop community stake in the property
 - Trash clean ups
 - Trail work & trail crew development/training
 - Report vandalism & illicit uses

Phase II

Phase II creates further open space usability by providing formal access points, trail features and amenities.

- Kettle Run Road trailhead development
 - Parking with "safe" ingress/egress



- Trail development as needed to connect
- Closure of existing informal trailheads (if relocated)
- CXT/Vault toilets [if needed] to accommodate waste issues
- Trail development
 - Implementation of standards/improvement (e.g, bridges)
 - Classes of trail targeted at desired uses
 - Field design of additional/alternate trails
 - Construction of additional trails
 - Closure and restoration of unsustainable and non-mission supporting trails
- Development of additional trailheads and access points

Phase III

Phase III focuses on the creation of amenities that help celebrate the Preserve and the unique environment of the area.

- Develop facilities
 - Interpretive center
- Development of additional recreation Infrastructure
 - Blinds
 - Piers & boardwalks
 - Viewing platforms



Trail Design and Construction

There's more to building a trail than moving rocks and dirt. Trails are usually part of larger systems that are the result of careful and diligent planning and collaboration. These trail systems must serve the needs of multiple user groups and take environmental and geographical factors into account.

While land managers and other administrators are ultimately responsible for land planning processes, committed trail users and community groups have important roles to play as well. Planning is ultimately about the big picture, and that picture includes not only the forest and the trees, but also the entire trails community.

The alignments presented in this report will be refined in the field to create a sustainable, enjoyable trail system. The specific alignment of the trail tread should be built to accommodate sustainable use by mountain bicyclists, as they will be able to obtain speeds greater than a hiker trail runner. Information for trail design and construction can be obtained from *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*, and *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*, both published by IMBA.

It is strongly recommended that the trails be designed by a qualified trailbuilder who has extensive experience developing sustainable mountain bicycle-specific singletrack trails that will also accommodate trail runners. Where recommended, an experienced trail contractor should perform the field design. If not, there is the potential to create a collection of trails that do not meet user needs and that will fail to become the community system that is hoped for. The use of contractors primarily experienced in road construction is not recommended as these firms and individuals are not versed in the needs of trail users and recreation-based construction.

Prior to construction, and preferably prior to the release of bid documents, the trail corridors identified in this report should be located in the field, using a combination of ribbon flagging, stakes, pin flags, and paint. The contractor should be expected to construct the trail within the identified corridor, which can be assumed to be approximately 50 feet wide, except where property boundary constraints limit this corridor width.



The BRP requires special considerations when it comes to designing, constructing and maintaining trails. Sandy soils, wetlands and high user pressures should be considered in the planning of trails.

- Grades on Sandy Soils – Trails should aim for sustainable grades that reduce the shearing of soil. As a general rule of thumb, trails constructed in sandy soils shouldn't exceed 5% grade. This will help diminish user-based erosion and will still move water off the tread.
- Turns on Sandy Soils – The location of turns on sandy soils should put user pressures and shear forces into the soil rather than off of the soil. Locating turns that are *inside* (user forces are focused on pushing soil into the tread) rather than *outside* (user forces are focused on pushing soil off the tread) helps maintain the designed tread width and reduces user based erosion.
- Good Flow – A trails flow can drastically reduce user based erosion on sandy soils. Creating a predictable tread and trail alignment will help minimize sudden accelerations and sudden stops, which can degrade sandy soils rapidly. Predictable doesn't mean boring; slow and technical can be as exciting as fast and flowy in vegetated environs like the BRP.
- Use of Armoring – Sometimes the desired experience or the topography dictates that the tread be steeper than 5%. In these instances it is important to harden the tread on the trails at the BRP by introducing rocks, pavers or other armoring to eliminate user based and natural erosion.

Maintenance of Existing Trails

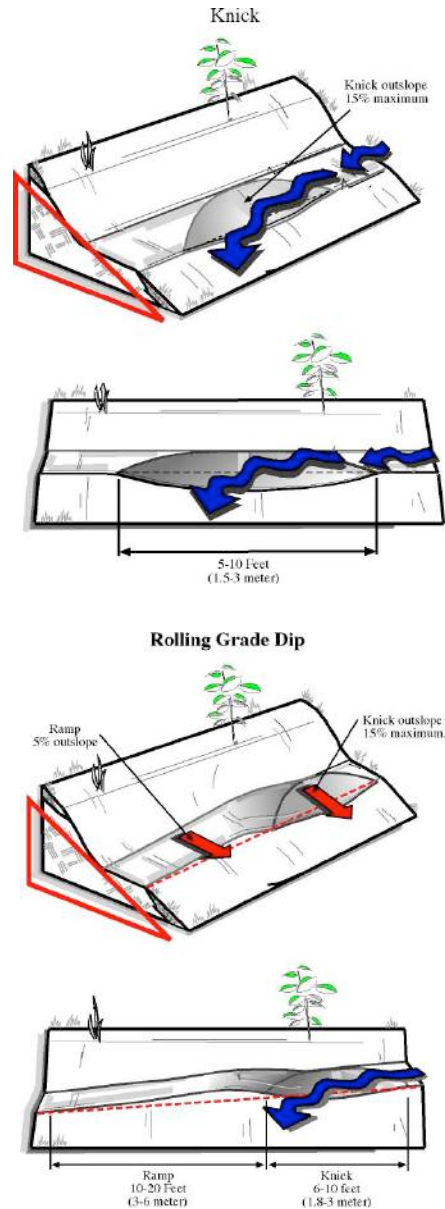
The existing trail system in and around the Black Run Preserve has been largely created by social use and legacy uses (cranberry bog construction and access). While these trails typically take users where they want to go, they usually are poorly suited to high traffic or sustainability.

Some trails exist in locations where they can weather the varied use pressures. Other trails, or sections of trails, are located in less than ideal locations and are prone to both user and environmental damage.



The existing trails, even when located in sustainable locations, do require occasional maintenance to keep them from degrading to an unusable tread. While the soil in the BRP is predominately sandy, care does need to be taken in low areas or on high use trails to move water off the trail rather than let it percolate through.

- Knicks should be implemented at the bottom of every grade reversal and where natural water flows cross the trail. The trails constructed using accepted construction techniques, can become cupped over time due to trail use and water flow. This cupping should be removed in the low areas where water collects and/or crosses on the trail to prevent muddy sections and encourage good sheet flow.
- Rolling Grade Dips (RGD's) are a manufactured grade reversal and require more sweat equity during their construction, but are good problem solvers. These should be located in areas where trails cross old roadbeds or where there are long lengths of trail with no grade reversals. Old roadbeds typically act as water funnels and can transport water from far away and deposit it on the trail.
- Re-leveling tread and re-contouring of the back slope is needed from soil migrating off the back slope and creating an unacceptable camber to the tread. Other causes are soft outside critical edges that slough





with use and water flow. Re-leveling tread invites users to the middle of the trail where the tread is strongest and keeps people off the outside critical edge keeping the tread from migrating downhill. This type of maintenance is generally performed in key areas where tread widening or creep is either dangerous to users or environmentally unappealing.

- A thorough pruning plan on the trail corridor should be carried out every year, or even twice a year. Removing punjis (small trunks coming up and out of the ground), coat hangers (branches that have been cut, but extend into the trail) as well as pruning back of new growth helps keep users in the middle of the trail and away from the outside critical edge. This opens up sightlines on two-way trails allowing uphill and downhill users to see each other easier. It also allows users to see what they are about to encounter on the trail and prepare for it earlier. Care must be taken though to keep the corridor narrow since it is this tight feeling that keeps actual speeds low.

The soils, wildlife and plant life in and around the BRP survive in a delicate balance due to cold winters, warm summers and human pressures. Care should be taken to identify real impacts to existing concerns. Critical winter habitat for large mammals, existing populations of endangered plants and areas of poor soils need to be identified before trails are closed, opened or maintained. This duty of care will result in a sustainable trail and trail system that can celebrate the outdoors rather than degrade it.

A similar balance is needed to effectively implement the development presented in this plan; the FBRP board should continue to work with partners including the Pinelands Preservation Alliance, Rancocas Conservancy, Evesham Township, and other state and local entities. A broad range of users and volunteers are needed to support the BRP, its mission, and sustainable trail systems on the property.



Appendices

Trail Zones and Mileage Table

Black Run Preserve Conceptual Trail Mileage		
Tasks		
Zone	Trail Recommendations	Miles
Zone #1 Conservation and Recreation	New	7.47
	Road to Trail (R2T)	1.90
Zone #2 Conservation and Education Core	Decommission (Formal and Informal Trail)	2.62
Zone #3 Active Recreation Development	New	4.98
	Road to Trail (R2T)	0.25
Zone #4 Extended Backcountry Experience	Decommission	0.52
Total	New	12.45
	Road to Trail (R2T)	2.15
	Decommission	3.14

Vault Toilet Manufacturers – <http://www.cxtinc.com/vault.asp>

