

Chapter 2.

2. The Park Today

Background

Location and Site Description

Watkins Regional Park is a jewel in Prince George's County. More than 839 acres in size, it is located near Upper Marlboro, between MD 214 (Central Avenue) and MD 202 (Largo Road), east of Interstate 495 and west of MD 193 (Watkins Park Drive). Founded in 1964, the park is named after The Maryland-National Capital Park and Planning Commission's (M-NCPPC) former chairman, Robert M. Watkins. It is one of four regional parks operated by M-NCPPC in the county.

Attracting more than one million visitors a year, the park offers the following activities for visitors:

- Playgrounds, including the recent addition of the Wizard of Oz Imagination playground
- Athletic fields, indoor and outdoor tennis courts and basketball courts
- Group picnic shelters and family picnic areas
- Amusement facilities—Chesapeake Carousel, mini-golf and train
- Watkins Nature Center (WNC)
- Old Maryland Farm (OMF)
- Paved walking paths, woodland trails, and boardwalks
- Acres of protected natural areas and leased farm fields
- Chelsea Historic Manor
- Largo/Kettering/Perrywood Community Center
- Camping
- Special events and programming



Watkins Regional Park, red line indicates park boundary

The Department of Parks and Recreation's system is divided into three major recreational planning and operation areas: Northern, Central, and Southern.¹ Seven sub-areas were outlined in *Volume 2: 2040 Vision and Framework*. Watkins Regional Park is located in the Central East sub-area of the county. This sub-area has the highest population of all sub-areas in the county.² It is surrounded by established

¹ M-NCPPC Volume 2: Vision and Framework. Page 91.

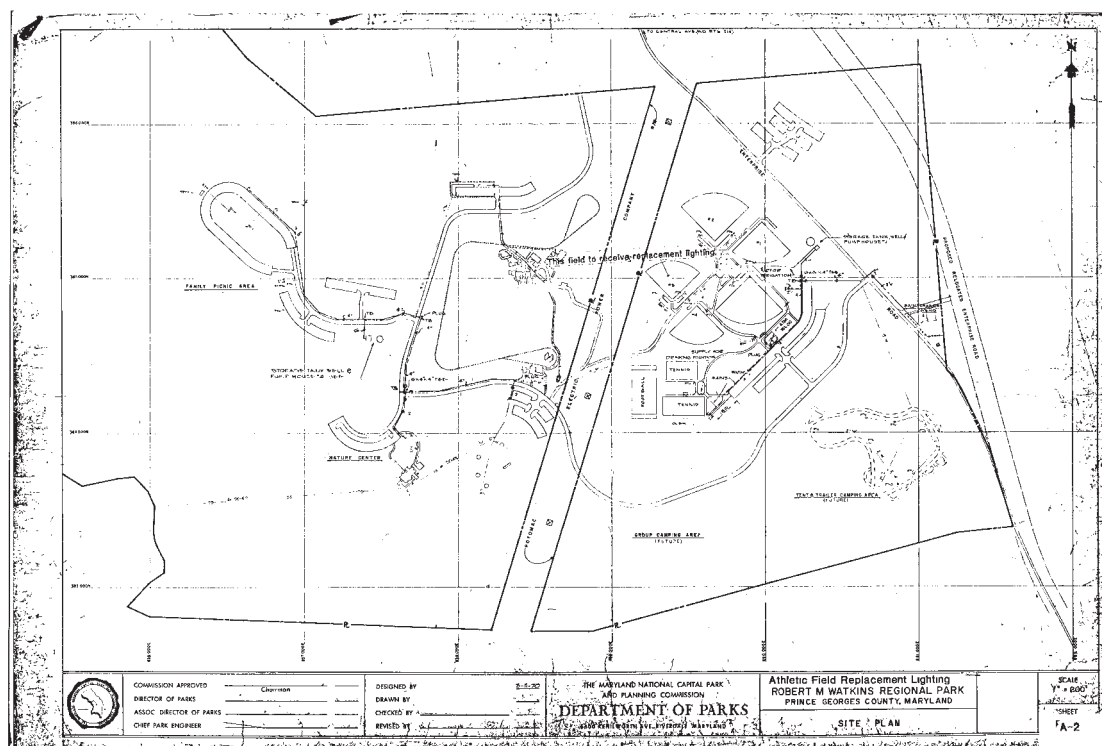
² M-NCPPC Volume 1: Needs & Resource Assessment. Page 22.

neighborhoods of single family and town homes, it is within a mile of the Prince George's Community College Campus on MD 202 (Largo Road). Riverdale Baptist School, a private school serving nursery through 12th graders, is located across Largo Road from the park's southern entrance and First Baptist Church of Glenarden is across MD 193 (Watkins Park Drive) along the park's southern section. The park is bifurcated by property owned by Pepco, an Excelon Company, that runs from the park's northeastern corner at the dead end of Old Enterprise Road to the park's southern edge on MD 202 (Largo Road). Pepco has strict requirements for which activities can and cannot take place on its property.

Site History

Watkins Regional Park is on land that was part of the former Chelsea Plantation. There are current standing structures associated with the plantation and structures associated with the 19th and 20th centuries, including the Old Maryland Farm which is located on what remains of an early 20th century farm. The bulk of the park was acquired during two different time periods between the 1960s and 1990s, and totals approximately 840 acres. The northern portion of the park was acquired in 1964 and many of the park's current features were in place in the northern portion by 1970.

The southern portion of the park was acquired much later, with the last parcel in 1996. Home to the Chelsea Historic Site³, the Largo/Kettering/Perrywood Community Center and the Perrywood Elementary School, much of the acreage in the south is currently leased to a local farmer.



Site plan dated March 11, 1970 shows the northern portion of the park in much the same configuration as remains today. A 1979 site plan indicates an intent to move the park infrastructure from a dependency on well water and septic systems to public water and sewer. One restroom remains on septic service today in the northern portion of the park and well water is still used for irrigation of the athletic fields.

3 Noted Antebellum Plantations in Prince George's County, Maryland on page 78 in Table 8; MIHP ID PG:73-018 and identified as being of the National Period during the years 1791–1864.

A master plan for the park was proposed in the late 1990s, but was not adopted. It included a new entry drive that connected the spur road with the covered bridge and the northern section of the park. The plan focused on four big additions to the southern portion: the development of a botanic garden; the addition of a large pond just east of the Pepco property and water features in the south; a ball field and group use area; and the relocation of Old Maryland Farm.

Three of these proposals are reflected in the current Watkins Regional Park Master Park Development Plan recommendations for improvements in the southern portion of the park: the focus on gardens and agriculture; the addition of athletic facilities; and the relocation of Old Maryland Farm. The pond and added water features are not feasible due to environmental restrictions.



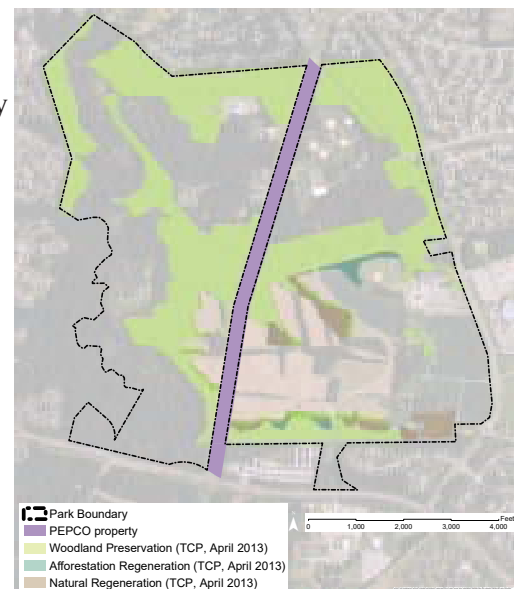
Image of earlier master plan, with proposed botanic garden and Old Maryland Farm located in the southern portion of the site

Tree Conservation Plans (TCP) are in place for the northern and southern portions of the park. TCP 2 - 156-91's first documentation was on 08-28-91 and TCP2 - 83-95's first entry was on 7-11-95. Areas subject to the restrictions in place from these documents are noted in the master park development plan.

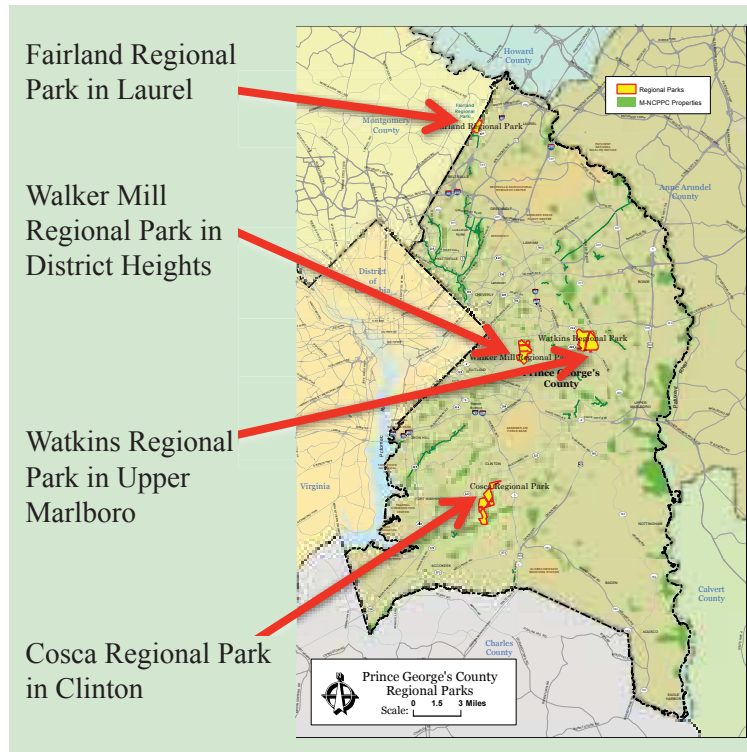
What is a Regional Park?

Prince George's County Department of Parks and Recreation identified seven major types of parks for its more than 25,000 acres of parkland. These are:

- Neighborhood
- Community
- **Regional**
- Countywide
- Special facilities
- Natural areas/Conservation areas
- Undeveloped parks



Portion of Watkins Regional Park regulated by TCP and owned by Pepco



Location of four regional parks within Prince George's County

Prince George's County has four regional parks as shown on the adjacent diagram.

- Fairland Regional Park
- Walker Mill Regional Park
- Watkins Regional Park
- Cosca Regional Park

“Regional parks focus on providing service to the surrounding community and regions of the county. These parks also include the most components of all the major types of parks.”⁴

Although there is not a standard national definition of a regional park, some of the common attributes ascribed to a regional park include:

- Special characteristics in the park that express the local environment or culture
- Regional road access and sufficient parking
- Trail networks that extend to adjoining areas, towns, and other trail networks

As a part of this planning effort, initial ideas were generated on which activities and facilities would or should be located in a regional park. These include:

- Inclusion of 2-3 neighborhood scaled and defined parks (playground, picnic facilities, one or two athletic fields, walking path) within a larger park to serve both regional visitors and adjacent neighbors (*Prince George's County defines Neighborhood Park types as including an average of six components and a combination of many of the following amenities: multi-use fields, shelter, tennis courts, ballfields, basketball courts, and playgrounds, as well as an occasional loop walk, picnic grounds, or a volleyball court. These parks are an average size of about 10 acres.*⁵)
- Inclusion of a 'wow' or unique collection of features in addition to neighborhood serving features such as site's natural resources and activities built around these; tournament quality athletic fields; unusual recreation opportunities
- Opportunity to introduce visitors to new activities and experiences not found at neighborhood parks
- Require substantial investment of dollars and staffing resources; an order of magnitude beyond neighborhood park
- Model criteria for outdoor facilities and amenities to be provided on those in place for community centers
- Include historic component in all regional park education

Facilities to be provided at the Regional Service Level¹

Indoor Facilities

- Multi-purpose spaces
- Pools
- Fitness centers
- Cultural Arts Center

Outdoor Facilities

- Natural lands
- Multi-purpose turf fields
- Synthetic turf fields
- Ball field diamonds
- Disk golf
- Dog park
- Community garden
- Golf
- Skate park
- Trails
- Playground, destination
- Spray pad

¹ M-NCPPC Volume 2: Vision and Framework. Pages 99-101.

Why Plan Now?

Plans have been developed for Watkins Regional Park in the past, from site plans for specific improvements to a proposed master plan focused on development in the southern portion of the site that was never adopted. This planning effort is the first master park development plan to be developed under the guidance of the 2040 document.

Watkins Regional Park works today because of the concentration of family-friendly features in one small area of the park. But that is also why it no longer works as well as it once did, and with the continued growth in population and visitors, the park will continue to be challenged in accommodating the demand within such a restricted footprint.

⁵ M-NCPPC Volume 2: Vision and Framework. Page 89.

Changing Demographics

As noted in the *2010 Needs Assessment* and the *2012 Land Preservation, Parks and Recreation Plan*, Prince George's County demographics are changing.

The county's population is projected to continue to grow, adding just under an additional 100,000 residents in the next two decades.⁶ Similar to nationwide trends, the population of residents who are 55 + is expected to increase while the 35–54 year-old population will slightly decrease.⁷ Gender distribution is expected to remain fairly consistent. Racial and ethnic composition may inform and reflect historical or cultural heritage in decision-making. Prince George's County is a majority Black or African-American community, accounting for 64.5% of the county's population. The *Formula 2040* document states that a “noticeable shift” is occurring among those self-identified as being of Hispanic/Latino origin. This segment is expected to grow from 7.12% in 2000 to 26.72% by 2025⁸ and will no longer be concentrated in Prince George's County's northern area, but living across the county.

Changing Interests

Recreational interests are changing; more people are walking, hiking, or biking for exercise; sports activities such as lacrosse and soccer are attracting new participants; millennials have embraced kickball; and new activities continue to be proposed. Activities suggested for inclusion at Watkins Regional Park were made via the planning project's online survey, community meetings, responses to web and Facebook postings, and from the appointed stakeholder group. Suggestions included pickle ball; disc golf; mountain biking; skate boarding; expanded biking and walking trails; pollinator gardens; an artificial sledding hill; and expanded farm operations to include market gardens, an antique farm equipment display and demonstration area, barn renovation for art and event use, and, of course, additional parking.

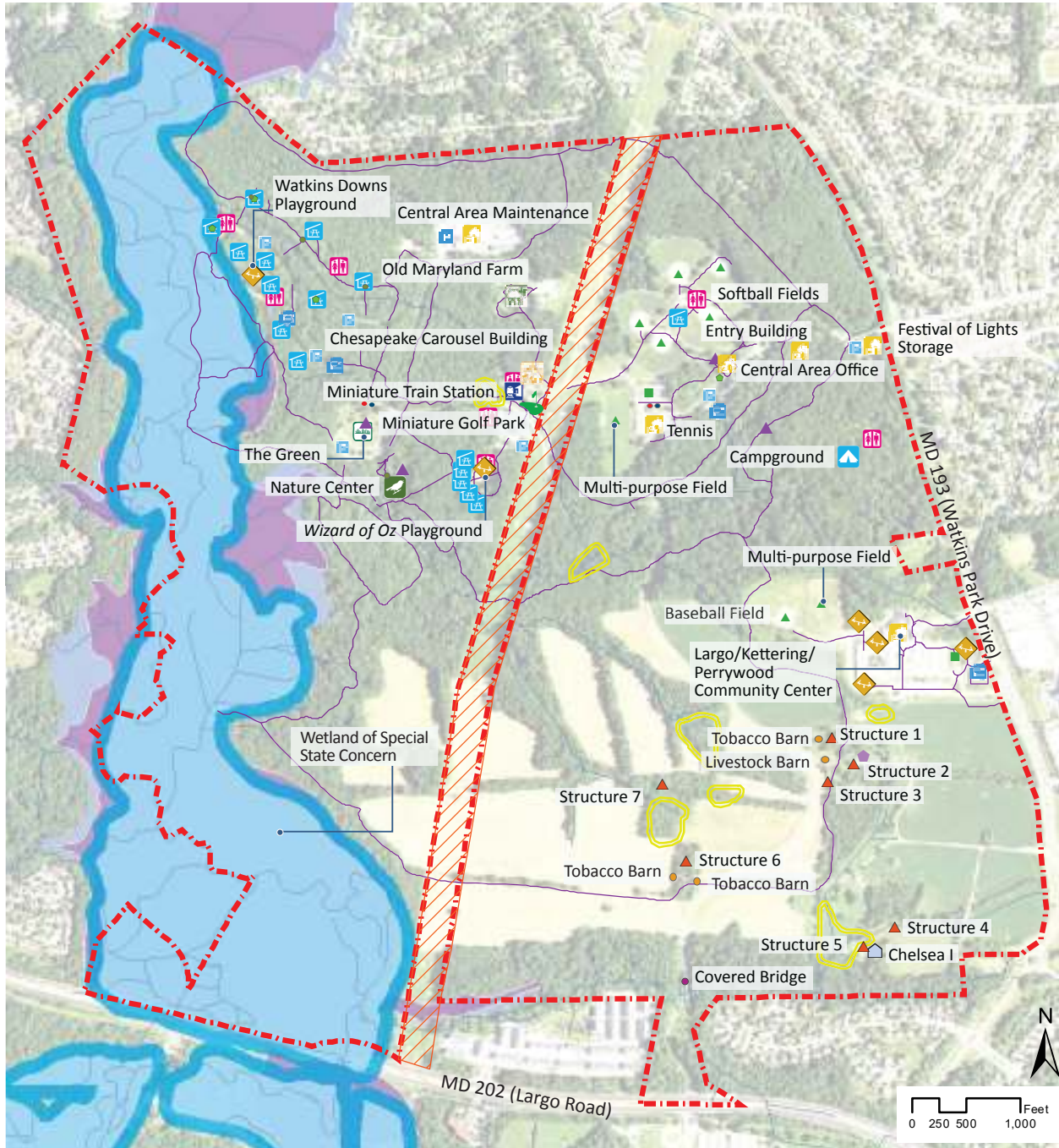
Changing Lifestyles

As suburban areas become more urban, outdoor space associated with a private residence may diminish, putting additional pressures on public parks to provide extensive outdoor recreation opportunities. This development pattern is occurring throughout the greater Washington metropolitan community.

6 Formula 2040. Page 34.

7 Formula 2014. Page 35.

8 Formula 2040. Page 36-38.



Watkins Regional Park Master Park Development Plan

Overall Map



live more, play more



Lardner/Klein Landscape Architects, P.C.
in association with
MIG, CHM, ESA, JMA Preservation and SIRI, LLC.

Watkins Regional Park Existing Features

Legend

- Park Boundary
- Miniature Train Station
- Chelsea Historic Site
- Covered Bridge
- Campground
- Old Maryland Farm
- Structure
- Barn
- Nature Center

- Outdoor Tennis Court
- Horseshoe Pit
- Building
- Basketball Court
- Chesapeake Carousel
- Miniature Golf Park
- Athletic Fields
- Playground
- Memorial Site
- The Green

- Restroom
- Picnic Shelter
- Park Trail
- Pepco use restriction
- Nontidal Wetlands
- Stream
- Wetland of Special State Concern (Prince George's Co. Open Data)
- Wetland of Special State Concern 100 foot Buffer
- 100 year Flood (FIRM 1996)
- 500 year Flood (FIRM 1996)

- Porta-potty (ADA)
- Porta-potty (Regular)
- Chelsea I

Data Source: 2015 aerial map - imap.maryland.gov

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Built Features located in Watkins Regional Park 2016-2017

Campground

- 34 camping sites (group and single)

Picnic Facilities

- 4 informal, open picnic areas with grills
- 16 permitted picnic shelters

Athletic Fields and Courts

- 5 lighted softball/baseball fields
- 1 baseball field at L/K/P
- 1 multi-purpose lighted field
- 1 multi-purpose field at L/K/P
- 1 basketball full-court at L/K/P
- 4 basketball half-courts
- 5 indoor tennis courts
- 4 lighted outdoor tennis courts
- 1 tennis court at L/K/P

Playgrounds

- 2 Playgrounds
- 4 Playgrounds at L/K/P

WNC and OMF

- Watkins Nature Center
- Old Maryland Farm

Summer Operations

- Miniature train
- 18 hole mini-golf course
- Antique carousel
- Snack bar refreshment depot

Restrooms

- 8 Restrooms and 2 porta-potty sites

Pedestrian Trails

- Natural surface trail network
- Paved walking loop and exercise system

Parking

- More than 900 parking spaces

Others, not assessed

- CAM and CAO
- Largo/Kettering/Perrywood Community Center (L/K/P)
- Chelsea Historic Site
- 11 structures in the south (barns, outbuildings)
- Chelsea I residential structure

Assessment of Built Features Condition, Use, and Comparable Facilities within the Region

An on-site physical assessment of existing conditions of built features at the park was conducted in the spring and summer of 2016. Built upon work completed in 2009 field observations by EMG, published as a report in 2011, the assessment identified, inventoried, and evaluated the built features of the site, noting physical site conditions and any specific or unusual characteristics. Information was compiled on a general level, useful in the preparation of a master park development plan.

The material gathered is not intended to be used in the preparation of any site plans or construction documents. No structural assessment, testing, or in-depth study was completed by team members.

This review provides a snapshot view of the current existing conditions of the physical facilities and site features in Watkins Regional Park. Because the current review is more cursory, elements were reviewed using a four level assessment: Excellent; Good; Fair; and Poor. Definitions for each of the four categories were adopted from industry standards and are as follow:

- Excellent—new or recently constructed feature with no visible signs of deterioration. Perform routine maintenance to maintain condition.
- Good—average to above average condition for the feature or materials assessed, with consideration of its age and design. Generally, other than normal maintenance, no remedial work is recommended or required.
- Fair—average condition for the feature or materials evaluated. There are signs of wear or deterioration though the feature is generally performing its intended purpose. Some rehabilitation is required or recommended to return the feature to a good condition.
- Poor—below average condition for the feature evaluated. The feature or element shows advanced signs of imminent failure or breakdown. Significant work (major repair or replacement) should be anticipated to restore the feature or material to an acceptable condition.

Features were identified through the review of early site plans (circa 1970), field work, and review of several software tracking systems used to manage park operations.

The extent of site features currently found at Watkins Regional Park is documented in the sidebar on page 2-8. In addition to these features, the park is served by infrastructure such as utilities and support for vehicular and pedestrian circulation. Each of the features listed, and the associated infrastructure's existing physical condition, is summarized below. Features were combined into a single analysis map that summarizes the primary built features in the park. They are illustrated in the map on page 2-7.

Condition Assessment

Park features in some areas are cramped, attracting more visitors than can be supported within that area of the park. Two examples are the picnic loop in the northwestern section of the park and the central core of the park, including the *Wizard of Oz* playground and Summer Operations activities. In contrast, other areas of the park, such as the campground, while consuming a large area of the park, are underused.

Many of the current park features, although freshly painted and repaired as best as possible, are aging and in need of replacement or substantial renovation. Other park features lack the physical space to expand facilities and the necessary parking to support an expansion.

The following pages provide a high level summary of necessary park facilities.⁹ Team members did not perform an accessibility assessment as a part of the existing conditions assessment.¹⁰ More detailed information on the built environment and existing conditions is available in Appendix 1.

Overall Park Visitation and Use Assessment

Watkins Regional Park staff collects usage data from multiple sources. This includes attendance at ticketed amenities (train, carousel, and miniature golf), scheduled picnic shelters and athletic fields, and reservation-based programs and activities. Based on available data, answers were provided, when possible, to the following questions related to park feature use:

- What is the current state of park use and user attendance within all program areas?
- Are recreational needs of users being met?
- What is the level of program attendance and user satisfaction?
- What are the outcomes?
- What facilities are at or are exceeding capacity?
- What are usage trends over operating years and seasons?
- What is the diversity of programs and what is overall satisfaction with programs?

The analysis identified 155,000 individuals using facilities or participating in activities and programs during 2015, based upon data collected by Department of Parks and Recreation staff. In addition to this quantified use, the park attracts general visitation, including playground use and individuals using the park for recreational fitness. M-NCPPC does not capture this visitation data outside of recently installed road and trail counters. Seasonal road counters are in place at the two entrances to the park. Park rangers recently installed a pedestrian counter to assist with estimates of visitation and paved trail use, located on the paved trail just north of the driveway entrance to the Central Area Office (CAO).

⁹ Additional recreational features are located at the Largo/Kettering/Perrywood Community Center and Perrywood Elementary School. They are counted in the overall park feature inventory, but were not incorporated in the Level of Service and Needs Assessment for this document.

¹⁰ Rose Harris, CPSI, ICC Certified Accessibility Inspector/Plans Examiner for M-NCPPC's Maintenance and Development Division at Randall Farm has been completing a survey of the park.

Competitive/Comparable Facilities

Watkins Regional Park provides a wide range of recreational activities to serve the needs of users. The fact that the full complement of activities and facilities is available in one location is unique in the metropolitan Washington, D.C., area. However, each of the individual land uses or park features studied at Watkins Regional Park is available at other parks within a 45-mile radius of Watkins Regional Park.

Parks with competitive and comparable facilities to those found at Watkins Regional Park were toured. Qualitative comments about how Watkins compares to the comparable set are included under each recreational use. They include the following.

- Fairland Regional Park (Sports & Aquatic Center and Tennis Bubble)
- Walker Mill Regional Park
- Cosca Regional Park (Clearwater Nature Center)
- Cabin John Regional Park (Locust Grove)
- Wheaton Regional Park (Brookside Nature Center)
- Rock Creek Regional Park (Meadowside Nature Center)
- Burke Lake Park
- Lake Fairfax Park
- South Run RECenter
- Croydon Creek Nature Center
- Merkle Wildlife Sanctuary and Visitor Center
- Accokeek National Colonial Farm
- Frying Pan Farm Park/Kidwell Farm
- Kinder Farm Park
- Oxon Hill Farm
- Upton Hill Regional Park
- Fountainhead Regional Park
- Clemyjontri Park
- East Potomac NPS



View of the existing campground access road with several campsites in the background

Specific Built Features: Condition, Use and Availability

Watkins Regional Park has a myriad of built features throughout the park. Each of these are categorized by type and discussed below in more detail.

CAMPGROUND

The 34 spot campground serves both group and single campsites users. It is in good physical condition and has a one-way road system looping through the woods. Six of the sites have hand pumps that provide potable water. A central restroom offers hot showers, flush toilets, and electrical service. The campground encompasses a large area of land that lies outside of the designated Tree Conservation 2 restricted development zone.

Watkins Regional Park's campground is severely underutilized. Its total occupancy has not exceeded three percent for the last five years. No users were observed in the campground during the week of July 4, 2016, a traditionally popular week for vacations and camping in the Washington DC metropolitan region. The following table presents monthly campground occupancy for 2015, as well as total occupancy dating back to 2011.

Table 2-1. Campground Use (CHM 100316 Task F LOS and Other Relevant Files)						
	2015	Occ	2011	2012	2013	2014
January	3	0.3%				
February	0					
March	6	0.6%				
April	17	1.9%				
May	42	4.5%				
June	36	4.0%				
July	31	3.3%				
August	20	2.2%				
September	59	6.6%				
October	74	8.0%				
November	12	1.3%				
December	12	1.3%				
Total	312	2.8%	145	246	293	244
Total Occupancy	2.8%		1.3%	2.2%	2.7%	2.2%

Campgrounds at the other comparable parks offer more developed sites. Specifically, they include utility hook-ups, graded sites and, in some cases, sites with concrete or asphalt pads. The setting at Cosca Regional Park in Prince George's County is similar to the wooded setting found at Watkins Regional Park. The setting at Burke Lake and Lake Fairfax Parks in Fairfax County, VA is open and less wooded.

Given the less than 3 percent occupancy over the last five seasons, this area could be better used in support of park activities. Consideration should be given to providing special permitted group camping for specific events or activities. There are suitable sites for such use in the southern portion of the park.

PICNIC SHELTERS

The park's most popular rental or fee-based use is picnic shelter rental. Watkins Regional Park has 15 picnic shelters available for rental from May through September. There are three sizes of shelters, with capacity for 50, to 100, to 150 people. A separate shelter located near the softball fields is not available for rental independent of permitted use in association with the athletic fields. It accommodates more than 150 people. There are three other picnic areas available for use on a first come, first served basis. A fourth picnic area, adjacent to the train station, may be reserved for birthday parties and is not available for use by the general public without reservation. Recent improvements have been made to the permitted shelters,



Shelter 10, a 50 person capacity shelter located near the *Wizard of Oz* playground

replacing grills at some, improving site conditions, and replacing tables and trash cans. All but one of the permitted picnic shelters were observed to be in fair to good condition in 2016. One of the sixteen shelters observed was considered to be in poor condition.

Picnic shelters located adjacent to playgrounds receive the highest use renters (shelters 4, 5, and 6 near the Watkins Down playground and shelters 10-14 near the *Wizard of Oz* playground). Anecdotally, some renters assume that the adjacent playground is reserved for sole use by the renter of an adjacent picnic shelter. Overuse at some of the shelters has led to damaged facilities and deteriorated ground conditions. Shelter use can exceed the permitted capacities of 50, 100 or 150 persons. The system currently has no security deposit or other means to enforce the rules if capacity or other rules are violated, other than patrol by Park Rangers.

Reserved Picnic Shelters

At other regional park locations, reserved picnic shelters are similarly located next to recreational day-use activities. However, in other parks those uses are typically located along the outer sections of the park and provide more parking (improving access and egress), leaving the core section of the park for passive recreation and trail systems. The centralization of functions of Watkins in the core of the park has created parking challenges that the other comparable locations do not have. As planning decisions are made

regarding adding or reconfiguring picnic shelters, selecting locations where adequate parking is not used for other recreational activities should be considered.

The picnic shelters are well-utilized throughout the months that they are available for rent. The effective occupancy of the picnic shelters was calculated by counting total available rental days (weekend days and holidays) during the months the shelters are open for a total of 53 days. Using this method to calculate total picnic shelter occupancy, the smaller, 50-person capacity shelters (shelters 10 through 14) have exceeded 80 percent occupancy during several recent years. One or two of the smaller shelters near the *Wizard of Oz* playground are periodically reserved by Watkins Nature Center staff for school use during visits to WNC and OMF. Overall occupancy of the shelters averages about 57 or 58 percent. Total picnic-related visitation has averaged 45,000 over four of the five years analyzed. The following chart provides information regarding the performance and utilization of Watkins Regional Park's picnic shelters including overall visitation trends, and individual picnic shelter occupancy for the last five years.

Table 2-2. Picnic Shelter Use (CHM 100316 Task F LOS and Other Relevant Files)						
Picnic Shelter	Shelter Capacity	2011	2012	2013	2014	2015
00	150	77%	75%	74%	62%	64%
01	150	41%	45%	32%	48%	38%
02	150	48%	36%	28%	43%	41%
03	150	34%	35%	26%	45%	42%
04	150	65%	66%	50%	73%	58%
05	100	49%	53%	50%	56%	71%
06	100	51%	56%	50%	51%	56%
07	100	50%	52%	39%	56%	52%
08	100	62%	58%	53%	54%	64%
09	100	55%	60%	53%	57%	60%
10	50	91%	83%	101%	83%	87%
11	50	80%	80%	89%	71%	79%
12	50	71%	75%	87%	85%	67%
13	50	75%	75%	89%	70%	64%
14	50	77%	84%	83%	65%	77%
Total Occupancy		58%	57%	52%	58%	57%

Reserved via permits, picnic shelter rentals provide an important service to the visitors and are a revenue source for M-NCPPC. Usage continues to be strong and so the challenge is how to better accommodate the overwhelming demand and peak use overcrowding that occurs. This land use should be maintained and consideration given to the expansion of reserved picnic area shelters.

Non Reserved Picnic Areas

Currently, data for the use of unreserved picnic shelters is not captured so it is difficult to measure. However, qualitative research has indicated that this is a desired activity and is occurring. This should be a function that is maintained, therefore, the focus should be on creating open, inviting, and shaded areas for individual families to gather.

ATHLETIC FIELDS AND COURTS

Athletic Fields

Five permitted softball/baseball fields, clustered in the northern portion of the park, have been in use since the early 1970s. The fields are irrigated with well water, lighted for night use, and supported with appropriate fencing, backstops, bleachers, and drinking fountains. There are no scoreboards, other than one abandoned behind field number 2. There are no concession stands, although there is a large picnic shelter adjacent to the complex.



Ball field number 1, with tennis bubble in background



Multi-purpose field located adjacent to the tennis bubble

Softball field utilization in the northern portion of the park appears to be centered around weeknight softball leagues during the time period the fields are available. Use of these fields is by permit only, with availability for weeknight and weekend day use. Seasonal use is limited due to parking constraints; the softball fields are permitted when the multi-purpose field is not, and the multi-purpose field is permitted when the softball fields are not. Demand analysis may be affected by the limited time that the fields are permitted. Permits are required for any use of the fields. Due to parking shortages, the softball fields are NOT permitted for use during the fall football season and the multi-purpose field is NOT permitted during the spring and summer softball season.

The table below details the effective occupancy of each softball field for the months of peak usage for each facility type. Because current park management limits the times during which athletic permits can be issued, it is challenging to determine how demand for the fields might change if permits were available for additional blocks of time. The date reflects permit holding, rather than actual use. No on-site observations were made to confirm actual use at the level allowed by permits issued.

The baseball field near the Largo/Kettering/Perrywood Community Center was not included in the use analysis. It is lighted for night use, but is not irrigated.

Table 2-3. Softball/Baseball Field Use in the Northern Portion of the Park (CHM 100316 Task F LOS and Other Relevant Files)				
Field 1	April	May	June	July
Weekend Day		28%	55%	78%
Weekend Night				25%
Weekday Day			2%	
Weeknight	25%	29%	59%	48%
Field 2	April	May	June	July
Weekend Day		60%	70%	88%
Weekend Night			13%	25%
Weekday Day		2%		
Weeknight	77%	57%	75%	39%
Field 3	April	May	June	July
Weekend Day		46%	75%	78%
Weekend Night				13%
Weekday Day		14%	2%	
Weeknight	34%	43%	89%	26%
Field 4	April	May	June	July
Weekend Day	5%	58%	65%	88%
Weekend Night			6%	25%
Weekday Day		2%		2%
Weeknight	77%	81%	66%	15%
Field 5	April	May	June	July
Weekend Day		46%	55%	78%
Weekend Night				25%
Weekday Day				3%
Weeknight	18%	38%	57%	46%

Excerpts from the Focus Group Discussion on Athletic Fields

Existing fields would be better utilized if they were better maintained, with the inclusion of rain covers.

Tournament play is on the rise, and to rebuild the fields to tournament specs [softball] would really create a destination that is well-used—that would generate a lot of revenue too.

The main issues to address are:

- Better water management (covers, drainage)
- New concessions and restrooms
- More parking
- Upgrade all fields to at least 300 feet (if a focus on adult play)
- Part of the attraction of this facility is that it is surrounded by park amenities like picnic pavilions and shade
- How to serve both youth and adults
 - The best facilities are built specifically for youth, or adults – since they require different sizes. But at Watkins, it may be better to keep it a flexible facility that can serve both. Reduce the field size as needed (for youth) with the use of movable fences and pitches.
 - Youth tournament space is more in demand and raises more money. Right now the use of the fields by kid's teams is only about 15%.
 - Youth fields are more easily used for kickball, which is very popular.

A single, multi-purpose, permitted field is located west of the tennis bubble. Primarily used by the Boys and Girls Club for fall football games, some soccer use was observed during a field visit. This field is lighted for evening use and irrigated with well water.

Use of the multi-purpose field in the northern portion of the park is concentrated during the months of September, October, and November on weeknights and by permit only, the inverse of the permitting for the softball fields in the northern part of the park due to parking limitations. One youth football league is the primary user. Use of this field during midweek and daytime is not consistent with one entity or entities.

A multi-purpose field near the Largo/Kettering/Perrywood Community Center was not included in the use analysis. The field is lighted for evening use, but is not irrigated.

Table 2-4. Multi Purpose Field Use (adjacent to tennis bubble) in the Northern Portion of the Park (CHM 100316 Task F LOS and Other Relevant Files)			
	September	October	November
Weekend Day		22%	
Weekend Night		22%	
Weekday Day		14%	1%
Weekday Night	59%	73%	67%

The softball and multi-use fields provided at Watkins Regional Park appear to be maintained to the same standard as those in the comparable set of fields in the neighboring region. However, there are fewer support facilities such as bleachers, snack stands, and restrooms at the Watkins Regional Park facilities.

Based upon available rental times, the athletic fields' occupancy supports continuation of this use.

Tennis Courts

Watkins Regional Park is a tennis hub for the area, with four outdoor courts and five indoor courts within a tennis bubble. Usage of the tennis courts has grown over the period reviewed. July is the month of peak usage, during which several youth programs occur.



Outdoor tennis courts at Watkins

The following charts and tables present Watkins tennis historical usage from 2011 to 2015 and 2015, respectively. The indoor tennis bubble continues to experience increased usage and provides a four-season recreational use. Continuing its usage is essential to meet immediate market needs.

Table 2-5. Indoor Tennis Use over a Four year Time Period (Source: SMARTLink)					
		2012	2013	2014	2015
Tennis—Program	4,753	5,255	5,409	6,417	5,890
Tennis—Private Lessons	382	393	398	224	367

Table 2-6. Indoor Tennis Courts Use in 2015 (CHM 100316 Task F LOS and Other Relevant Files, Source: SMARTLink)			
	Rentals	Players	Revenue
Court 1	409	1,159	\$36,561
Court 2	451	1,271	\$40,713
Court 3	452	984	\$32,453
Court 4	385	1,156	\$40,474
Court 5	519	1,320	\$42,437

The bubble protecting the five indoor courts was at the end of its lifespan and was recently replaced in kind with a bubble that has the expected lifespan of 20 years. Although there is a long-term desire to replace the tennis bubble with a new, enlarged and expanded facility, the current water service has limited water pressure. There is not enough pressure to allow for expansion of the replacement facility while still providing operable fire sprinklers. A new entry with office space and a multi-purpose room was added to the tennis complex in 2015-2016.

There is a substantial supply of indoor tennis bubbles within the comparable market, each with well-maintained courts. The tennis structures include both inflatable bubbles as well as fixed structures. Typically, these structures are located apart from the other park activities.

National trends are favorable. There is a medium desire for tennis activities by Prince George's County users. Watkins Regional Park has a developed site that is well maintained and is experiencing favorable usage and good cost recovery. Based on this information, it is recommended that the park receive continued support for the scope and scale of operation at existing locations.

Other Courts

Additional recreational courts—basketball and tennis—are located at the Largo/Kettering/Perrywood Community Center and Perrywood Elementary School. Although they are counted in the overall park feature inventory, they were not incorporated in the level of service and needs assessment for this document.

PLAYGROUNDS

There are two, recently built, playgrounds within Watkins Regional Park—the *Wizard of Oz* playground located near the miniature train and carousel and built in 2015, and the Watkins Downs playground found at the picnic loop in the northwestern corner of the park, built in 2014. Four additional playgrounds are located adjacent to the Largo/Kettering/Perrywood Community Center. The two new facilities were observed to be in excellent physical condition, and the four at the Community Center were observed to be in fair condition, primarily due to age.

From observation, as no data is available, the *Wizard of Oz* playground receives substantially more visitors than the Watkins Downs playground. This is likely due to siting and scale, the *Wizard of Oz* incorporating more equipment. The highly visible and publicized *Wizard of Oz* playground is located between the high traffic areas of WNC and OMF. The *Wizard of Oz* playground is a unique amenity and driver for park visitation.



Wizard of Oz playground



Watkins Downs playground

Although usage information is not available, themed and expansive (i.e. Imagination series) playgrounds are one of the most popular components of regional parks. Several of the regional parks studied include sizable playgrounds, and Prince George's parks highlight its collection of 'Imagination Playgrounds' available across the county. Playgrounds are generally considered a necessity for a day-use or picnic area, but especially large and/or themed playgrounds draw visitors from across the region.

Ensuring that there are activities around this popular feature will be important. Consideration of additional nature-based playgrounds that support the outdoor setting should be considered in order to create some additional visitor amenities within other areas of the park.

WATKINS NATURE CENTER AND OLD MARYLAND FARM

The Watkins Nature Center's facility is aged and cramped, located in an area of the park that is restricted from expansion due to physical constraints such as slopes, stream valleys, and existing park development. The relatively small size of the facility, lack of exhibit space, and lack of expansion room limits program offerings.

The buildings are in poor to fair condition per the visual assessment performed in 2016. At the time of the assessment, one of the classrooms was braced to support the roof, although it is now repaired. The facility's exhibit space is limited and the amphitheater needs renovation to add new level seating and a larger fire pit.

Normal maintenance is required to replace or upgrade the raptor enclosure and decking and to address on-site erosion. Most importantly, the current facility is hidden from view, with many park users unaware of its existence.

There is a desire to transform the facility into a 21st century environmental and education facility. On-site expansion to accommodate this wish is challenging as the site is restricted by a stream valley between the building and its associated parking lot. There is little available area at the current site that could be used for building expansion without adversely impacting the outdoor activities integral to WNC's programming.

Old Maryland Farm is also challenged by a number of site conditions. Aged and cramped, it is located in an area of the park that is immediately adjacent to wetlands and is bifurcated by the miniature train tracks. The site itself is poorly drained, leading to problems with building deterioration and animal health.

The current site of the farm originally served as the front door of the park, with parking located nearby at the current location of the CAM. Between OMF and CAM were gardens featuring native-Maryland species. Today, the farm does not have public vehicular access or public parking adjacent to it. It is hidden behind the Summer Operations facilities and challenging to find if the site is unknown to the visitor.

Squeezed on its northern edge by an expanding CAM facility, the miniature train tracks cut between the barns

Excerpts from the Focus Group Discussion on Old Maryland Farm

- Farm visitors tend to be a separate audience from the carousel crowd
- Farm visitors independently visit with the farm as main destination
- Audience is wide, not just kids; adults and high schoolers, too
- Buildings need to be rebuilt every 12–15 yrs because of rot
- Animal health suffers from the wet ground conditions
- People do not usually come in the office and find the gift shop
- People miss a lot of the resources the staff offers
- Interest in displaying antique farm equipment, but lack room to do so
- Need additional space to expand pasture
- Barb wire fence around the farm is to protect animals from intruders
- Old Maryland Farm could expand and become more like the Accokeek Foundation and offer much more programming
- Add farm to table, as well as history of farming and this farm
- Once provided horse lessons but it costs too much and requires too much space for current location to provide

and the pastures serving OMF. This division creates two spaces when OMF should be one uninterrupted space. More importantly, the tracks cutting through the site potentially endanger the safety of workers and animals. A series of gates and human escorts to move the animals between the barns and pastures is required. Although the train ride introduces riders to the farm and its hidden location, it does adversely affect the farm operations. The current location does not have space for the expansion of activities such as additional pasture land, barns to house antique farm equipment and the addition of more animals.

The Watkins Nature Center and Old Maryland Farm usage is relatively strong. Management of both facilities expressed a desire to increase visitation. Managers noted that the usage of their facilities is in part a function of the size and configuration of programming space and the resources available to staff the programs.

Walk-in visitors comprise the majority of users to both the WNC and OMF. Historical usage trend information was available only for the WNC (and not for OMF). Total visitation to the WNC has declined over the period reviewed (FY 2015). These data trends are presented in the following charts.

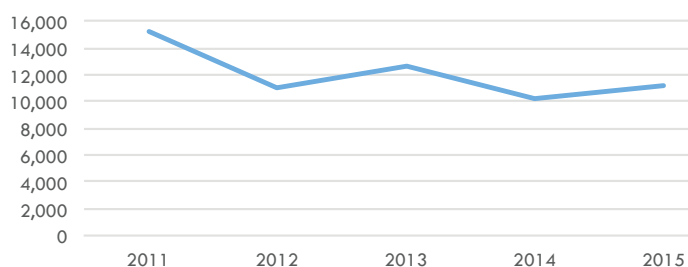
Table 2-7. Watkins Nature Center Visitors 2015 (CHM 100316 Task F LOS and Other Relevant Files)

	Visitors
Walk-In	38,651
On-Site Program	5,604
Off-Site Program	5,907
Rental/Meetings	6,825
Special Event	4,527
Other	1,116

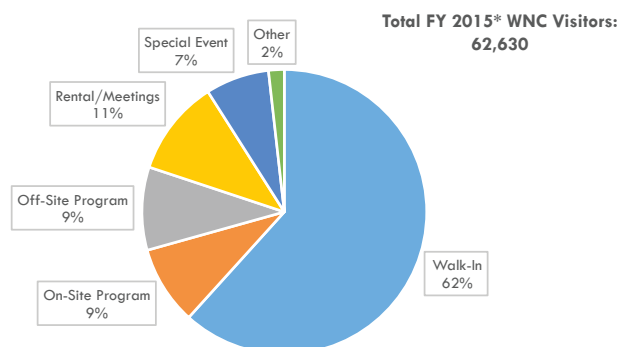
Table 2-8. Watkins Old Maryland Farm Visitors 2015 (CHM 100316 Task F LOS and Other Relevant Files)

	Visitors
Walk-In	32,940
Hayride	4,613
Programming	617
Birthday Parties	1,365

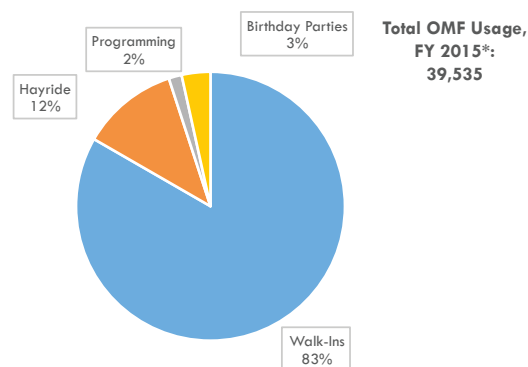
Total Watkins Nature Center Usage, 2011 - 2015*



*Includes both on-site and off-site programming



*Only Fiscal Year 2015 (vs. 2015 Calendar Year) visitor data was available for the Watkins Nature Center.



*Only Fiscal Year 2015 (vs. 2015 Calendar Year) visitor data was available for the Old Maryland Farm. Reported numbers related to Kinderfest are not included.

Diagrams illustrating usage at WNC (top); types of rental use at WNC (middle); and OMF types of rentals (bottom)



Watkins Regional Park Master Park Development Plan

Watkins Nature Center



live more, play more



Lardner/Klein Landscape Architects, P.C.

in association with
MIG, CHM, ESA, JMA Preservation and SIRI, LLC.

Existing layout of Watkins Nature Center (WNC)

Legend

- | | | | |
|--|----------------------------|--|-------------------|
| | Watkins Nature Center | | Pedestrian Bridge |
| | Watkins Nature Center Deck | | Parking |
| | Amphitheater | | Trail |
| | | | Stream |

Data Source: 2015 aerial map - imap.maryland.gov
Notes: Trail Data from Prince George's County Open Data.

09.16.16
2-21



Watkins Regional Park Master Park Development Plan

Old Maryland Farm



more, play more



Lardner/Klein Landscape Architects, P.C.
in association with
MIG, CHM, ESA, JMA Preservation and SIRI, LLC.

Existing layout of Old Maryland Farm
(OMF)

2-22

Legend

Old Maryland Farm	Geese Shelter	Building	Overall Condition <div style="display: flex; align-items: center;"><div style="width: 20px; height: 20px; background: linear-gradient(to bottom, red, orange, yellow, green);"></div><div style="margin-left: 5px; text-align: left; padding-top: 5px;">poor fair good excellent</div></div>
Rabbit Shelter	Goat & Llama Shelter	Parking	
Chicken Shelter	Cow Shelter	Active Train Tracks	
Peacock Shelter	Horse & Donkey Shelter	Trail	
Pig Shelter	Pasture	Stream (ESA Fieldwork)	
Turkey Shelter	Data Source: 2015 aerial map - imap.maryland.gov Notes: Trail Data from Prince George's County Open Data.		09.16.16

Final Draft - December 2018

Both Montgomery County and Prince George's County park entities provide nature centers at their regional parks. The size and scope of the Watkins Nature Center compares similarly to that at the other facilities. It appears that the Watkins facility is in a greater degree of disrepair than the other facilities. Programming at each of the facilities is similar, including programs and activities for drop-in and scheduled classes, as well as special programs for birthday parties and other special events.

WNC and OMF each appear to be constrained by their available space, configuration or facility condition. Both facilities have generally experienced continued stable use in program and drop-in activities, although WNC has experienced some decline in visitors per the data supplied. Each of these program areas continue to serve an important role in natural resource and environmental education. There is a general national trend for STEM and nature-based activities for children and a priority for environmental education and nature centers within M-NCPPC and Prince George's County data. The usage trends for both sites indicate continued support for each activity. The cost recovery, while somewhat low, is within reason for these types of activities. Both activities are constrained by their site locations for any future development or program expansion. Each has opportunities to increase programming and activities to new markets if larger and more functional spaces were provided. The two facilities work well in relationship to each other as their market appreciates learning in two separate environments. The analysis and review of comparable facilities suggests that the plan find new locations for these two functions so that each can better leverage space for elementary, middle school, and adult learning.

SUMMER OPERATIONS

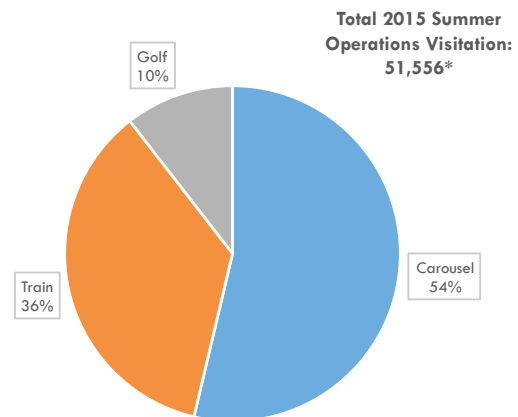
The Summer Operations (Summer Ops) facilities refer to a collection of ticketed, seasonal use facilities—the historic Chesapeake Carousel, miniature train, and the 18-hole miniature golf course. A beloved component of the park, the mini-golf course is aging and not fully accessible. The existing buildings—the ticket booth, the building shell around the carousel, and the 'station' for the train, which houses some office space, vending machines, and accessible heated restrooms, does not provide sufficient office space for Summer Ops staff and volunteers. The building that serves as the train station is also used for winter storage, limiting the year-round availability of heated, accessible, public restrooms in the center of the



Existing 18-hole miniature golf course at the core of the Summer Ops' area of the park

northern portion of the park. It needs renovation if it is to provide more efficient space for Summer Operations staff, ticket sales, and potential event rental space. Ticketing takes place in a free-standing building, requiring the transfer of cash receipts during the work day to a separate facility. The snack area, supported with vending machines, usurps air conditioned space that might be more appropriately used. At one time, the vending machine facility also housed a snack bar.

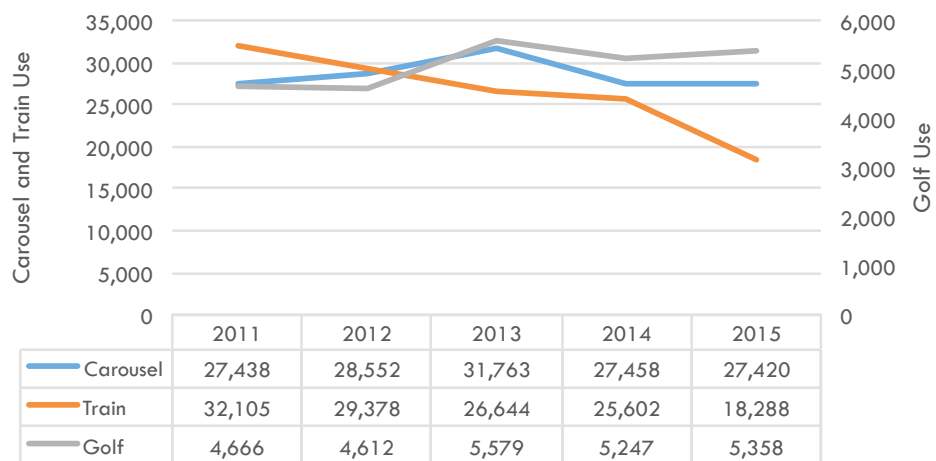
As the name denotes, Summer Ops facilities are available to visitors only during the summer months. Summer Operations are located near the *Wizard of Oz* playground. The majority of use accrued in 2015 was on the carousel, and use of the carousel and miniature golf has exhibited a stable to increasing trend since 2011. In contrast, train usage has been declining significantly over the period reviewed. According to park management, the train has increasingly been down for maintenance over the last five years. This is likely a reason for the decline in use. The following charts present Summer Operations historical usage trends.



*Although they are included in the Total 2015 Summer Operations Visitation, chart does not include 490 visitors attending birthday parties.

Revenue sources for Summer Operations

Table 2-9. Total Summer Operations Visitation, by Category (CHM 100316 Task F LOS and Other Relevant Files)										
	May	Jun	Jul	Aug	Sep	Oct	2015	2012	2013	2014
Carousel	4,374	3,589	7,195	9,359	2,900	3	27,420	28,552	31,763	27,458
Train	4,082	3,920	8,795	1,349	142	0	18,288	29,378	26,644	25,602
Golf	829	830	1,411	1,636	652	0	5,358	4,612	5,579	5,247



Visitor count for five years at Summer Operations park features

The size and scope of operations at Watkins Regional Park is comparable to other parks in the region. Miniature golf is available at three other regional parks, although they are all located 20 miles or more from Watkins.

Summer activities such as the miniature train, carousel, and mini-golf remain very popular and provide important revenue sources for the park. Identifying the most suitable method for locating these facilities to avoid visitor crowding is essential. If there are not suitable spaces for these activities to continue, additional types of unique, fee-based activities should be recommended.

RESTROOMS

Thirteen public or quasi-public restrooms and two sets of porta-potties are located in the northern section of the park. Of these, four restrooms appear to be fully accessible¹¹. Other restroom facilities will require modifications or replacements to be compliant with ADA standards. From visual observation, approximately half of the restrooms are in good condition while the remainder are in fair to poor condition.

All but one of the public restrooms are served by public sewer. Due to grade issues, one of the facilities on public sewer is served by an E/ONE grinder system that pumps waste from the facility to the sewer trunk line. Although several of the facilities are heated and could be used year-round, some of the heated facilities are used for winter storage and not placed in year-round service.

PEDESTRIAN TRAILS AND LOOP PATHS

Watkins Regional Park's extensive network of paved and 'soft' or natural surface trails is heavily used by hikers, walkers, and, to some extent, bicyclists. For the most part, there is a clear separation of pedestrian and vehicular traffic. Bicycle facilities are less developed, although there is some use of the paved trail system for recreational cycling.

The majority of the natural and paved trails are located in the northern portion of the park, although there is a mowed loop through the agricultural lands in the south and a paved walkway on the western side of the new entry drive from MD 202 (Largo Road). A myriad of named trails encircles

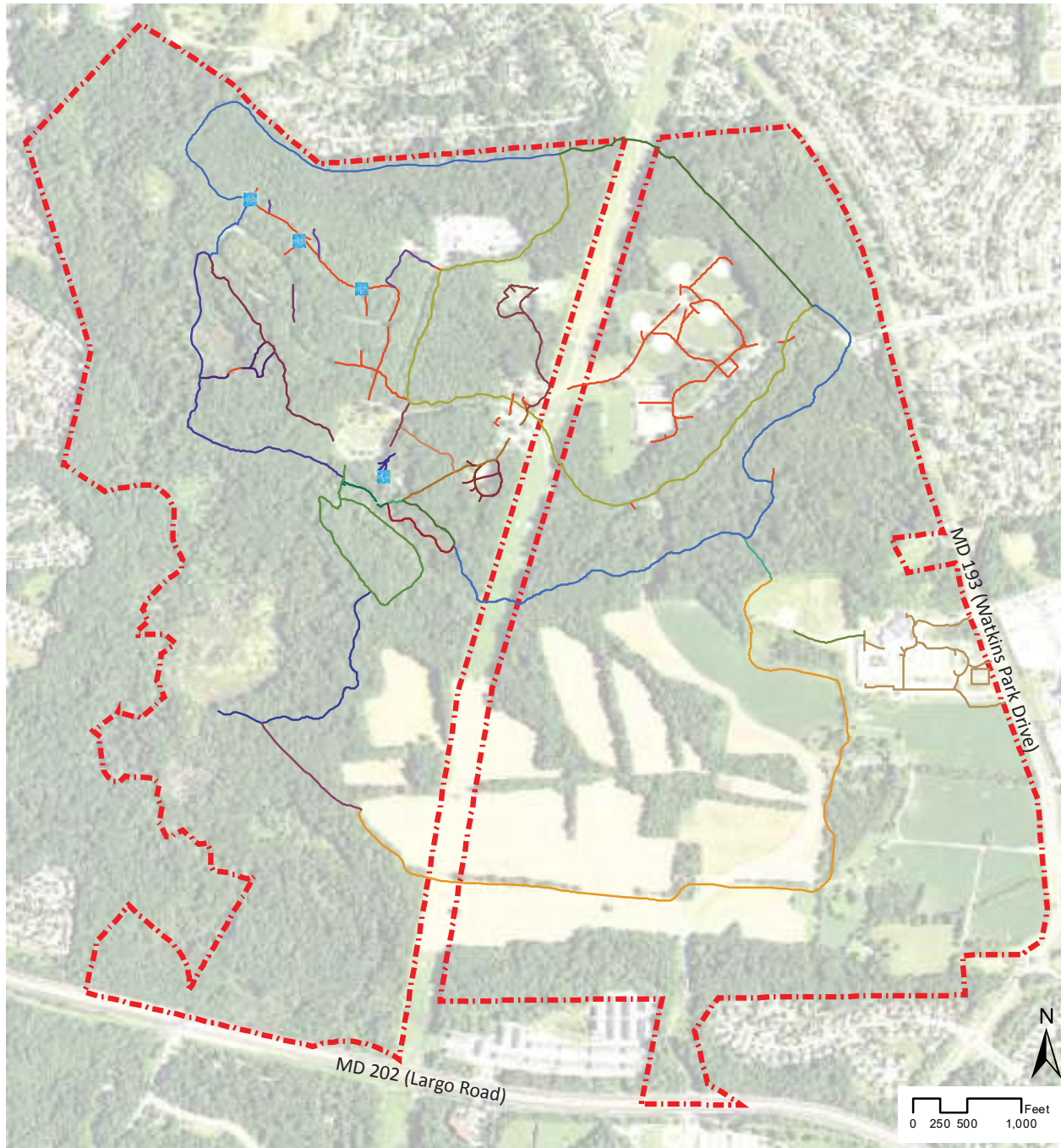
¹¹ A formal review was not completed, this assessment is based on a visual analysis of door threshold height, fixture types, and door and aisle widths during field work in April and May 2016



Summer Operations ticket booth



Paved loop trail in northern portion of park



Watkins Regional Park Master Park Development Plan

Existing Trail Map



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Lardner/Klein Landscape Architects, P.C.

in association with
MIG, CHM, ESA, JMA Preservation and SIRI, LLC.

Trail map for Watkins Regional Park

2-26

Legend

Park Boundary	Loop Trail & Perimeter Trail	Playground Walkway
Beaver Pond Trail	Nature Center Walkway	Spicebush Trail
Bluebird Trail	Nature Trail	Upland Trail
Boardwalk Trail	Overlook Trail (Watkins RP)	Watkins Regional Park
Connector Trail	Path to The Green	Wetland & Spicebush Trail
Farm & Playground Path	Path/Walkway	Wetland Trail
Farm Path	Perrywood/Kettering Trail	Wetland Trail & Perimeter Trail
Loop Trail	Largo/Kettering/Perrywood Community Center	Wetland Trail Woodland & Perimeter
Pedestrian Bridge		Woodland & Spicebush Trail
		Woodland Trail

Data Source: 2015 aerial map - imap.maryland.gov.
Trail Data from Prince George's County Open Data.

09.15.16

the park and their locations are shown on the Existing Trail Map on page 2-26.

Department of Parks and Recreation staff assessed the physical condition of each of the non-paved trails, paying particular attention to erosion problems, steep slope alignments, drainage issues, stairs, boardwalks, bridges, and missing signage. The intent is to move the system toward long-term sustainability. Routine maintenance needs, such as clearing fallen limbs and underbrush, was not a focus of this review. A series of recommended trail upgrades, reroutes, and replacements were generated based upon this review.

The Overlook Trail reuses a legacy farm road. The alignment is now a long ditch, going down the fall line into a sizable stretch of mud as it enters the floodplain. A potential way to address the muddy segment is to reroute the trail alignment, following the contour interval rather than traversing the slope perpendicular, and create a new stream corridor.

The Beaver Pond Trail has a long and steep, eroding alignment along the fall line as the trail approaches the descent to the floodplain toward the beaver pond. Similar in its current alignment to the Overlook Trail, the eroding segment could be rerouted.

The Upland Trail's alignment is failing. Wooden steps ascend a steep incline to the top of the plateau opposite WNC. This trail could be rerouted to eliminate the need for steps. If desired, the steps could be rebuilt to provide an alternate alignment to the rerouted trail.

Watkins Regional Park has a system of Wetland Trails. Numerous trail segments within that system are failing. Sections have partially decayed wooden steps. These trails could be rerouted to address the failing segments and steep slopes.

Long flat trail segments on the Spice Bush Trail North West hold water and mud following rain events. Modifications to improve drainage may help, such as rerouting some portions of the trail onto the contour. Where trail segments are naturally flat, improvements could incorporate a slightly wavy alignment change to provide some grade change to force water to sheet off the trail. One trail segment has an improper exit to the parking lot drain that could be



Farm drive, a potential trail link in the southern portion of park



Trail signs

Photo Credit: ESA

addressed by rerouting the trail alignment onto a contour or by adding a boardwalk and bridge segment. Trails near or crossing the Western Branch should be carefully considered, and their impact on the undisturbed forest and statewide significant wetlands carefully evaluated. A boardwalk that reaches the water and is used for educational purposes should be considered.

The Spice Bush Trail North East is missing a natural surface trail segment. One way to address this issue is to provide a natural surface trail off the paved road and onto the landscape contour. The Spice Bush Trail South East section is the least problematic. It could benefit from some rerouting of its existing alignment. The Spice Bush Trail South West primarily needs maintenance.

The Woodland Trail has a steep, unsustainable segment along the loop near the WNC. The trail alignment could be adjusted to a more sustainable grade. Given its location, the entire loop should be made compliant with the Americans with Disabilities Act Standards (ADA) for outdoor trails and recreation resources.

There are many boardwalks and bridges at Watkins Regional Park. While not all need repair, many are showing signs of age. Several need immediate attention. A plan should be developed to address periodic inspections and to implement repairs.

The current trail signage is incomplete. Any sign plan should also anticipate the addition of proposed trails.

A pedestrian counter was installed on the paved loop trail near the entry drive to the CAO in the spring of 2016. Figures from the count were surprisingly high, and reinforced the observation that the park serves a significant number of recreational and exercise walkers. Daily use varies, as indicated in the associated graph for 2016 use patterns.

Table 2-10. Pedestrian Use Counts (CHM 112216 el rv Watkins traffic counts report summary Walking Loop)								
2016	April	May	June	July	August	September	October	Total Pedestrians
WRP Walking Loop Totals	588	7,149	11,950	5,313	N/A	6,682	1,045	31,682

After additional years of trail user data is collected, M-NCPPC will likely confirm that these users are an important basis of demand for the park. Trails are used by visitors of all ages and support health and wellness for the community. Maintaining, improving, and possibly expanding the trail system should be considered in the planning effort.

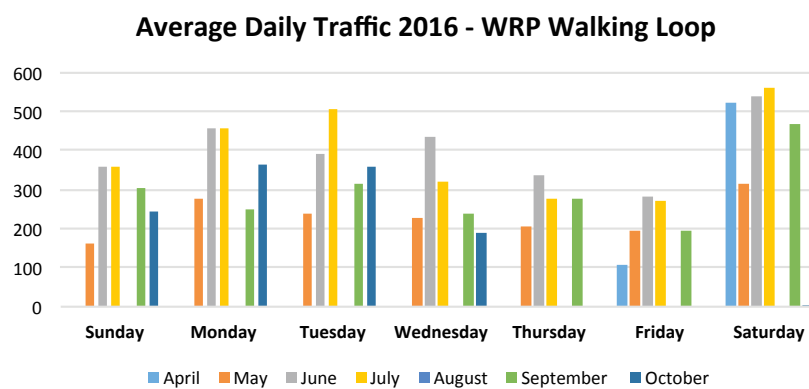


Chart illustrating use of paved walking loop at Watkins Regional Park

PARKING

Parking, or the shortage of parking, is the biggest impediment to the park's improvement and expansion of programming. Inventory maps documented the demand for parking to serve existing park features. Parking demand in the northern portion of the park exceeds the total supply of parking within the park if just two of the many park activities are operating at capacity—the rental picnic shelters and the six athletic fields. Many of the existing parking lots are isolated and disconnected, inhibiting movement and creating bottlenecks and dead ends for drivers. None of the parking lots are designed to formally accommodate bus drop-offs or parking. Overflow parking near the *Wizard of Oz* playground and the



Parking at the train station, no dedicated bus-drop exists

Summer Operations features is accommodated informally on the Pepco property in a self-parking manner, without formal direction or structure. Two methods were used to count the existing parking spaces—field counting and review of aerial photography. The data is presented in the table below.

Table 2-11. Existing Parking Spaces Spring/Summer 2016 at Watkins Regional Park (CHM 112216 el rv Watkins traffic counts report summary Traffic Counts)					
	Parking Spaces		Handicap Signed Parking Spaces		Total
	Field Count	Aerial Photo	Field Count	Aerial Photo	
Ticket Booth	7	-	0	-	
Nature Center	78	76	3	3	
Playground-Train Station	80	81	6	6	
Picnic Area 0-6	279	-	14	-	
Picnic Area 8-9	74	72	3	3	
Picnic Area 1&7	73	72	3	3	
Maintenance-Front Lot	-	-	-	-	
Admin-Tennis-Playing	275	286	11	6	
Nature Center Staff Parking	8	-			
OMF Staff Parking	7	-			
Train Station Parking—new in 2016	8				
TOTAL	889		40		929

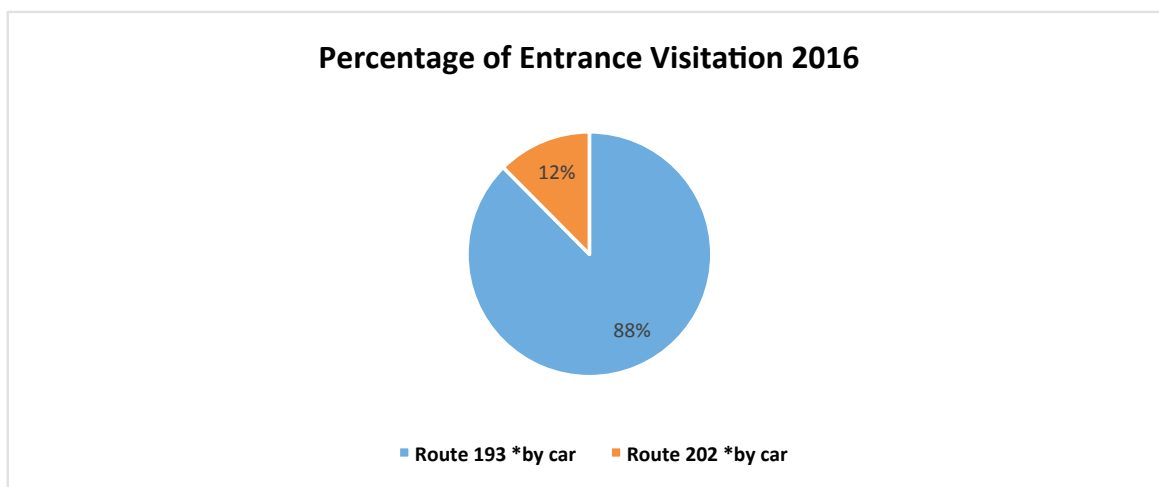
Eleven parking lots provided 929 spaces in 2016 for a ratio of 1.11 spaces per acre [840 acres] of open space. There were 40 handicapped-accessible parking stalls, 3 of which were noted as being reserved for vans. There may be additional van spaces that were not documented during field work. The 2009 and 2016 studies use different acreage figures for ratio development.

VEHICLE CIRCULATION AND VEHICULAR ENTRANCES

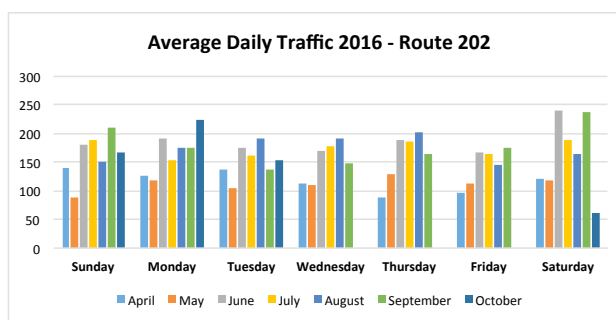
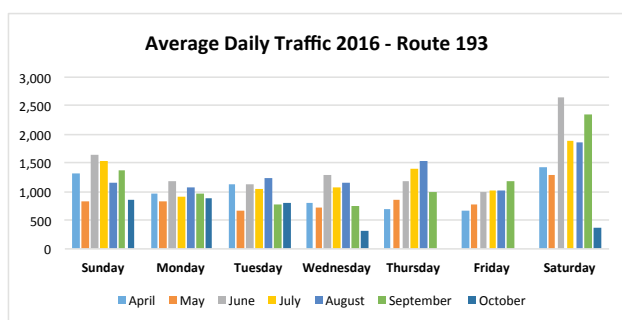
Watkins Regional Park has two primary vehicular entrances and multiple pedestrian and bicycle entrances. Both vehicular entrances present challenges for visitors exiting the park who wish to make a left turn onto either MD 193 (Watkins Park Drive) or onto MD 202 (Largo Road).

The original park entrance on MD 193 (Watkins Park Drive) provides direct access to the northern portion of the park. It is used for park visitors and for CAM and CAO vehicle traffic, mixing vehicle activities for the Central Region with park users. Current circulation requires that, for the most part, maintenance and county vehicles, entering the park to use the refueling facility, use the same park drive as the general public, potentially increasing non-park related traffic. In some instances, the former Old Enterprise stub road is opened for maintenance vehicle access.

The entry off of MD 193 was originally a two-way system. Its current configuration of one-way drives evolved from traffic patterns employed for the Festival of Lights, the holiday lights driving route. Improvements to the alignment of the entry road and its intersection with MD 193 are recommended.



Entrance use at Watkins Regional Park - 2016



Daily pattern of use for two entrances at Watkins Regional Park-2016

A second park entrance from the south off of MD 202 (Largo Road) was opened in 2015. It provides direct access to the southern portion of the park. Additional entry drives serve the Chelsea Historic Site, Chelsea I, and the Largo/Kettering/Perrywood Community Center.

Using the data available and collected for 2016—the months of April through October—231,079 cars were counted. This figure tracks with the park ranger supplied annual visitor count of 1,000,000 annual visitors, and 300,000 total vehicles counted. For purposes of estimation, park rangers assign 3 persons/vehicle.

Table 2-12. Vehicle Traffic Counts (CHM 112216 el rv Watkins traffic counts report summary Traffic Counts)								
2016	April	May	June	July	August	September	October	Total Vehicles
Route 193 *by car	17,164	26,073	42,588	39,693	39,551	34,688	3,019	202,776
Route 202 *by car	2,010	3,409	5,601	6,003	5,416	5,261	603	28,303
Totals	19,174	29,482	48,189	45,696	44,967	39,949	3,622	231,079

UTILITIES

The northern portion of Watkins Regional Park was developed in the 1970s, with public sewer and water replacing most of the private well and septic facilities in the late 70s. Although public water is now available in the northern portion of the park, the athletic fields in the north continue to be irrigated with well water, a potentially significant cost savings for the park. Other infrastructure—electric, parking, and the current road system (with the exception of the new southern entry road) also date from the early 70s.

The existing water system in the northern portion of the park has aged and is in need of upgrade or replacement. Park improvements are limited due to the low water pressure available throughout much of the northern portion of the park. The current water system does not have adequate pressure to supply the number of fire hydrants required by current code standards. It is probable that the costs to fully replace the system are less than to patch or replace segments of it.

The southern portion of the park is not currently served by public sewer or water. Individual sites do have electrical service. Existing structures are served by wells and septic systems. Any improvements made to the south will require the extension of public sewer, water, and a more robust electrical service.

Service locations for public water and sewer taps are not immediately adjacent to the southern portion of the park. First Baptist Church of Glenarden, across MD 193 (Watkins Park Drive) from the southern portion of the park taps into the public water system off of an extension from Oak Grove Road that terminates just north the traffic circle on Watkins Park Drive. There is no public water service along Watkins Park Drive south of the Largo/Kettering/Perrywood Community Center and north of the traffic circle in Watkins Park Drive. There is public water service along MD 202 (Largo Road). Sewer service is similarly located. Any improvements in the south will require private extensions for both sewer and water.¹²

¹² E-mail dated 5.22.17 from Carol Binns, forwarding e-mail from Rob Gleeson, WSSC Consent Decree, Sewer Rehabilitation Project.

PEPCO PROPERTY

Currently, no uses other than informally sanctioned overflow parking and road or trail crossings (at the most direct line) are allowed to take place on Pepco's property that slices diagonally through the park from the northeast corner at Old Enterprise Road to the southeast on MD 202 (Largo Rd). At this time, Pepco will not allow paved surface parking on their property. The potential for such use of Pepco's property should be monitored. Prince George's County is currently in discussion with Pepco regarding the potential use of the corridor for non-vehicular trails.

Level of Service (LOS) Analysis and Recommendations

A level of service evaluation was completed for existing and potential park features. The list of potential features was drawn from public engagement outreach, industry trends and recommendations, and requests for specific activities received over the years for incorporation at Watkins Regional Park. Although all possibilities were not reviewed due to study limitations, a range of offerings was evaluated.

CAMPGROUND

National trends indicate a slight decline in camping. Usage of the existing campground at Watkins Regional Park is nominal (less than 3% occupancy over the past five years) with the exception of a peak event related to softball in the fall.

The costs to maintain the campground are high and the cost recovery is very low. This plan recommends the removal of the use from the park and, if necessary, the creation of a space that can be multi-use, and include group camping, in another location in the park.

RESERVED PICNIC SHELTERS

There are no direct, measurable, national trends for evaluating or comparing reserved picnic shelter services. There is a high desire for picnicking documented in the Watkins Regional Park surveys, indicating a desire for both individual and group picnicking opportunities. Usage is substantial, and picnicking has high level of cost recovery, above 100 percent, which offsets other costs in the park.

The plan recommends adding additional picnic shelters that are available for rent at various locations in the park and are supported by adequate parking. Additional passive picnic areas, in groups of one to three individual tables, that are not fee-based or permitted, should be placed throughout the park to enhance the park experience.

ATHLETIC FIELDS AND COURTS

National trends indicate a decline in softball, but, within Prince George's County, softball field usage on weekends in the peak months indicate a high demand. National trends provide support for an increase in soccer demand, and a decrease in demand for football. The multi-purpose field in the northern portion of the park primarily supports football but has been used for soccer. The field is experiencing strong demand on weekend nights in November, but during other periods the demand is lower, due to the limited permit time.

All of these uses should remain in the park, with a determination made as to whether the level of facility quality meets market needs. An enhanced strategy for capturing revenue should be identified since there is a low level of cost recovery associated with these uses.

National trends for tennis are favorable and there is a medium desire for the activity within Prince George's County. Watkins Regional Park has developed tennis facilities that are well maintained and are experiencing favorable usage and good cost recovery.

The plan recommends continued support for the scope and scale of operation at the existing tennis facility locations.

PLAYGROUNDS

National trends involve encouraging outdoor activities in both structured and unstructured settings. Regional trends within M-NCPPC and Prince George's County indicate strong preference for high quality playgrounds. The current usage of the unique feature playgrounds is high.

The plan recommends creating a nature-based playground in another location—a location that can provide for a high level of play but is located within and features its natural setting. The potential exists to tie it to relocated activities in the southern portion of the park to create an additional hub of activity within the park.

WATKINS NATURE CENTER AND OLD MARYLAND FARM

There is a general national trend for STEM and nature-based activities for children and there is a priority for environmental education and nature centers within Prince George's County. Usage trends indicate continued support for such activities and while the cost recovery is low, it is within reason for these types of activities. Both WNC and OMF activities are growth constrained. They each have opportunities to increase programming and activities to new markets if larger and more functional spaces were made available. The WNC and OMF work well in relationship to each other, and the market appreciates learning in two separate and distinct environments.

As the current facilities are geared toward younger children, and expanding the programming for other ages is important, the plan recommends finding new locations for these two functions that can leverage space for additional learning activities and programs.

TRAILS

National trends are favorable for trail use and there is a strong desire for trails within Prince George's County. There is NO cost recovery available since this is a non-fee related activity. The plan recommends the continuation of the existing trail system and expansion into new areas. There is a need to improve the quality, condition, and linkages that keep trail use and vehicle use separate. There are also opportunities to create some fitness elements within trails.

WATER FEATURES

No quantitative use trends for splash pads exist, but there are evolving qualitative trends for this type of aquatic use. There is a strong regional preference for aquatic activities and an indoor pool was one of the most favored activities on the online and dot surveys for future incorporation at Watkins Regional Park.

The plan recommends a water-based feature(s) be added to the park. Two or three supportive features (not designed to be a unique attraction) could be added to different areas within the park to better expand the distribution of demand or to support an existing playground with a water feature such as a mister.

FOOD AND BEVERAGES

Local trend data supports the desire for food and beverage service at the park. Vending is currently provided and well utilized. The addition of quick food service should be considered.

The plan recommends the continuation of the effort to establish a food truck area, centrally located within the park, as well as providing kiosk structures that could function for vending as well as quick service (e.g. sinks and windows and utilities). New facilities for the WNC, OMF, and other event spaces or shelters should incorporate food service opportunities such as a catering kitchen or components of an outdoor kitchen in an outdoor shelter or pavilion.

GARDENS AND AGRICULTURE

Local trends indicate a desire for pleasant, natural settings for the contemplation of beauty. The plan recommends the addition of mini-gardens; intimate or transitional gardens; pollinator and native demonstration gardens; tree walks such as a magnolia walk; re-establishment of the orchards in the south; woodland gardens with ephemeral wildflowers; and highlighting aspects of the agricultural uses and heritage in the southern part of the park.

Table 2-13. Level of Service Conclusions

Feature	National Trends	Prince George's County	Watkins Demand	Cost Recovery
Athletic Fields	Softball declining	High interest/demand	Peak months—strong demand	Low level
	Soccer increase; football decrease	Lower priority than softball	Strong demand weeknights in November	Low level
Camping	Slight decline	Low priority	Low use, except a peak fall event tied to softball	Very low level
Picnicking	No measurable standards	High desire—individual and group use	Substantial for both (desire more individual)	High level on group rentals
Tennis	Favorable	Medium desire	Favorable usage	Good level
Trails	Favorable	High desire	Qualitative assessment—high demand	Non-fee activity
Nature Center and Old Maryland Farm	Trend for STEM and Nature Based Activities	Priority for Environmental Education and Nature Centers	Continued support; find new site where two can leverage space for elementary middle school, adult learning	Somewhat low, within reason for types of activities
Playgrounds	Trend encouraging outdoor play in structured and unstructured settings	Strong preference for high quality playgrounds	High; recommend creating nature-based playground in natural setting	Non-fee activity
Summer Ops: Train, Golf, Carousel	Lacking data	Lacking data	Focus groups—priority; solid use	Favorable contributors
Aquatic Features				
Indoor Pool			High demand in survey results	
Splash Pad	No national trend data; evolving trends	High preference regionally for aquatic activities	High element on park survey; water-based feature be added, potentially up to two sites to expand distribution w/ in park	Non-fee
Food and Drink Facilities		Desire	Vending provided and well used; food truck site, kiosk structure	
Outdoor Festival and Event Area	Trend for special events and community events	Desire for more events to occur in comfortable settings	Recommend several special event places that can serve multi-purposes and include power to location	
Gardens and Botanical Features			Desire pleasant natural setting for contemplating beauty	

Cost Recovery and Staffing Analysis

COST RECOVERY

In cooperation with Department of Parks and Recreation staff, a cost recovery financial analysis for the eight categories of activities offered at Watkins Regional Park was generated. This analysis was conducted based upon the cost accounting budget line items used by M-NCPPC and the Activity Based Costing presented in Appendix B and Appendix E of the *Formula 2040: Functional Master Plan for Parks Recreation and Open Space*.

This analysis allows M-NCPPC to separate public funding for activities (e.g. cost recovery) from M-NCPPC funding (e.g. subsidy). These cost recovery findings should be compared to what is typical for the recreation industry as a whole to determine if pricing/fee changes should be considered to enhance the cost recovery thresholds. Finally, as part of the planning process, the baseline cost recovery provides M-NCPPC with a general understating of the impacts of maintaining and/or expanding existing facilities. Ideally, a master park development plan should include a combination of activities that do not place the agency in a diminished fiscal position. Understanding the current fiscal position will inform the recommendations.

Following the completion of the Cost Recovery analysis, programs/activities were placed within the Stoplight Model as presented in the Department's *Formula 2040* plan. Two categories were created for financial sustainability within this model. The first category is the recreation industry benchmark and the second category is where the M-NCPPC data placed the program/activity. Under the Recreation Industry Benchmark, several activities can be placed in multiple locations within the Stoplight Model because they provide an array of benefits to the public. Only M-NCPPC can determine where the programs/activities belong within the Stoplight Model based upon their agency mission and their internal pricing policy.

The following table is the Stoplight Model from Appendix B of the *Formula 2040: Functional Master Plan for Parks Recreation and Open Space* adapted for the assessment of Watkins Regional Park and its activities, planned and proposed. This provides the context for evaluation of the findings and frames the Financial Sustainability elements of the Stoplight Model.

Table 2-14. Stoplight Model Snapshot

	Essential	Important	Value Add
Community Interest	High Community Expectation	High Community Expectation	High Individual and Interest Group Expectation
Financial Sustainability	Free or Nominal - May Require Public Funding	Fees Cover Most All Director Costs- Break Even or Pre Determined Cost Recovery	Fee Covers both Direct and Indirect Costs
Recreation Benchmark Location for Activities Based Upon Financial Sustainability	0 to 15% Cost Recovery	15 to 80% Cost Recovery	80 to 150% Cost Recovery
(Where the overall recreation industry would place these activities based upon typical cost recovery thresholds)	Playgrounds	Athletic Fields	Athletic Fields
	Passive Recreation	Summer Activities	Summer Activities
		Tennis	Tennis
		Festival of Lights	Festival of Lights
		Picnic Pavilions	Picnic Pavilions
	Old Maryland Farm	Old Maryland Farm	Campgrounds
	Nature Center	Nature Center	
M-NCPPC Location of Activities			
(What the Cost Recovery Analysis has Identified as to where they are located)	Athletic Fields: CR = 7%	Festival of Lights: CR = 23%	Summer Operations: CR= 82%
	Old Maryland Farm: 11%	Campground: CR = 26%	Tennis: CR=98%
	Nature Center: CR = 14%		Picnic: CR = 132%+

The findings indicate that several program activities are not achieving a standard recreation benchmark for their services, camping and athletic fields in particular. In the case of athletic fields it is likely a function of fees and usage, but in the case of campgrounds it is a function of absence of demand. As the

master park development plan contemplates athletic fields, attention should be paid to maintenance costs and the potential to reposition fees to improve cost recovery. In addition, it is clear that those activities in the Value Add column (e.g. summer operations, tennis, and picnic rentals) add to the positive financial position of the park. The OMF and the WNC are positioned appropriately on the model but could likely increase their level of cost recovery if there were additional spaces to create fee-based programs and activities. The Festival of Lights is also in this category and provides a great community benefit but presently only recovers 23% of its costs.

STAFFING

The scope of services directed the consulting team to evaluate the staffing and operational capacities to maintain and improve the park. Staffing information was collected for all the program areas through the cost recovery exercise. The analysis indicated that staffing costs represent between 50 and 80 percent of all expenses. Within staffing, the majority of expenses are for full time staff and benefits. In planning for future facilities, understanding that the majority of expenditures will be for personnel means that M-NCPPC should consider development options that leverage the existing staffing capacity but be cognizant of additional staff that may be needed for operational oversight. Activities that are place-based and not personnel-based are important to consider. Additionally, interviews indicated that support space for existing staff, as well as seasonal staff, is not adequate. In areas where there are multiple-uses (e.g. programming education and rentals), it is critical that M-NCPPC evaluate ways to leverage seasonal and interim staff to ensure that full time staff are more effectively leveraged.

Table 2-15. Stoplight Model Snapshot

	Essential	Important	Value Add
Community Interest	High Community Expectation	High Community Expectation	High Individual and Interest Group Expectation
Financial Sustainability	Free or Nominal - May Require Public Funding	Fees Cover Most All Director Costs - Break Even or Pre Determine Cost Recovery	Fee Covers both Direct and Indirect Costs
Benefit Health/Safety/Protection of Assets	Substantial Community Benefit- Negative Consequence if Not provided	Community and Individual Benefit	Primarily Individual Benefit
Competition in the Market	Limited or No Alternative Providers	Alternative Providers Unable to Meet Demand	Alternative Providers Readily Available
Enrollment - Open/Selective/Tryout	Open Enrollment	Open Enrollment	Selective/Tryouts

Youth and Adult League Fields	Essential	Important	Value Add
Community Interest		x	x
Financial Sustainability	Athletic Fields: CR = 7%		
Benefit Health/Safety/Protection of Assets		x	
Competition in the Market	x		
Enrollment - Open/Selective/Tryout		x	

Camping	Essential	Important	Value Add
Community Interest		x- If part of group camping for youth groups	x
Financial Sustainability		Campground: CR = 26%	
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Family Picnicking - Below 25 ppl	Essential	Important	Value Add
Community Interest	x		
Financial Sustainability	N/A	N/A	N/A
Benefit Health/Safety/Protection of Assets	x		
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Group Picnicking- 50+	Essential	Important	Value Add
Community Interest		x	x
Financial Sustainability			Picnic: CR = 132%+
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Tennis Programs	Essential	Important	Value Add
Community Interest		x	
Financial Sustainability			
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Table 2-15. Stoplight Model Snapshot, continued

Tennis Rentals	Essential	Important	Value Add
Community Interest			x
Financial Sustainability			Tennis: CR=98%
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Trails	Essential	Important	Value Add
Community Interest	x	x	
Financial Sustainability	N/A	N/A	N/A
Benefit Health/Safety/Protection of Assets	x		
Competition in the Market	x		
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Nature Center and Old Maryland Farm	Essential	Important	Value Add
Community Interest		x	
Financial Sustainability	OMF: CR=11% and NC:=CR 14%		
Benefit Health/Safety/Protection of Assets	x	x	
Competition in the Market	x		
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Playgrounds	Essential	Important	Value Add
Community Interest	x		
Financial Sustainability	N/A	N/A	N/A
Benefit Health/Safety/Protection of Assets	x		
Competition in the Market	x		
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Summer Operations	Essential	Important	Value Add
Community Interest		x	x
Financial Sustainability			Summer Operations: CR= 82%
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market			x
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Aquatic	Essential	Important	Value Add
Community Interest		x	x
Financial Sustainability	N/A	N/A	N/A
Benefit Health/Safety/Protection of Assets		x	x
Competition in the Market		x	
Enrollment - Open/Selective/Tryout	N/A	N/A	N/A

Assessment of Natural and Cultural Resources



Photo Credit: ESA

Tulip poplar tree flower

Forest Lands

UPLAND MATURING MIXED HARDWOODS (TULIP POPLAR ASSOCIATION)

A natural resource inventory (NRI)/forest stand delineation (FSD) was prepared for the entirety of the park. The park consists of approximately 560 acres of forested area expressing three major forest types. Approximately 314 acres are poplar dominated woodlands, occurring through the north, east and central portions of the park, formerly referred to as the Upland Maturing Mixed Hardwoods (Tulip Poplar Association). Based on 1937 black and white aerial photography, there is a 51 acre sub-set of the 314 acre tulip poplar dominated stand type, which visually identify on the photograph as agricultural fields from the 1930s and are now part of the poplar forest. These 51 acres of the poplar stand are visibly younger, even-aged, pole-stocked poplar. The 1937 aerial photo reveals that the bulk of the tulip poplar dominated stand may be much older than the mean of 41 years as based on dating the stand from the mean of a 16 inch poplar. The 1937 photo shows well established forest composition suggesting that the forest dominated by poplar may well have been 30 or more years old in 1937, making the 2016 stand in excess of 100 years old. Once a forest is 100 years and older, it begins to emulate some of the favorable attributes of old-growth forest, similar to that of the nearby Belt Woods Natural Environmental Area, located in Upper Marlboro, MD.

WESTERN BRANCH BOTTOMLAND AND FLOODPLAIN (RIVER BIRCH-SYCAMORE ASSOCIATION)

The second largest type of the three forest types in the park is the River Birch-Sycamore Association that consists of approximately 173 acres of sweet gum dominated woodlands. This forest type occurs

throughout the western portions of the park and is associated with the Western Branch of the Patuxent River and its tributaries. Based upon a review of the 1937 aerial photograph, portions of the bottom land, floodplain, and side slopes contain forest structure that may exceed 100 years old. This association is characteristic of larger floodplains in the coastal plain province.



Photo Credit: ESA

Bottomland at Watkins Regional Park

WESTERN BRANCH STEEP SLOPE MATURE HARDWOODS

The mature hardwoods forest stand is the smallest of the three forest types, consisting of approximately 70 acres of American Beech dominated woodlands. This type is scattered throughout the western portions of the park and is associated with steep forested bench slopes of the bottom land and floodplain.

HEDGEROWS

Several hedgerows are located on the property, however they do not necessarily meet the criteria to be defined as forested, as they are less than 10,000 square feet and/or only one to two trees wide.

SPECIMEN TREES

Four acres within Watkins Regional Park were specifically surveyed to identify specimen trees. Obviously, a park the size of Watkins has far more acreage with similarly sized trees thriving, but

the initial survey was targeted at areas most likely to be affected by early actions in the master park development plan. The four areas included:

- Area between The Green/Watkins Nature Center (WNC) and the parking lot near the *Wizard of Oz* playground
- Inside the circle of the Western Branch Picnic Area
- Campground
- The hedgerow near the two proposed picnic shelters and athletic fields west of the Largo/Kettering/Perrywood Community Center

An impressive 389 specimen trees, 30 inches diameter or larger at breast height (dbh), were documented and field located during two days of specimen tree survey at the four specific locations. Hundreds of trees were found to be within the 27 to 29 inch dbh range and may become specimen trees in the future.



Excerpt from Specimen Tree survey east of The Green

The clear majority of specimen trees in the areas sampled were tulip poplar (283, 73%), with mixed oak (40, 10%), sweet gum (40, 10%), sycamore (19, 5%), and various mixed hardwoods (7, 2%). There is a high-quality stand of mature oaks (predominately white oaks) within the campground, which have been called out on the map. These mature oaks offer substantial wildlife value in the form of food source, habitat, and propagation.

Based on the health assessment of individual specimen trees, the forest stands evaluated were in good health. Ninety-six percent of specimen trees were found to be in good health, with the remaining 4% in either fair or poor condition.

Woodland Conservation—Tree Conservation Plan

Watkins Regional Park is subject to two Tree Conservation Plans (TCP2). The southern portion of the park, the South Tract, is 410.40 acres in size, of which 92.03 acres are protected by woodland conservation regulations¹ with three types of preservation action: woodland preservation; natural regeneration area for off-site afforestation (credits); or afforestation/natural regeneration area for on-site requirement. The northern portion of the site, 428.79 acres in size, 193.19 acres of woodland conservation

¹ Watkins Regional Park Tree Conservation Plan TCP2 - 83-95, approved on 5/2/13.



Forest Stand Map for Watkins Regional Park - 2016



Photo Credit: ESA

Coville's phacelia



Photo Credit: ESA

Yellow trillium



Photo Credit: ESA

Kalmia latifolia



Photo Credit: ESA

Showy orchid

provided,² in the form of existing trees to remain (on-site woodland preservation). The 100 year floodplain is excluded from these plans but falls under separate development restrictions. All told, the TCP2 plans place development restrictions on 34% of the park's acreage.

Natural Area Priority Protection Areas

Three areas in the park, although protected to some extent because of their location within the 100 year floodplain or within a woodland conservation area, have resources that are so special they have received additional recognition in the master park development plan.

The first is a 25 acre area located in the most northeastern corner of the park, bounded by MD 193 (Watkins Park Drive), the Kettering residential community to the north and the stub of Old Enterprise Road that is located within the park. This entire tract presents as well forested from the 1937 aerial, indicating that the stand is at least 110 years or older and thereby emulates some old-growth characteristics³. Other than minor edge effects and a parking area currently used as an outdoor maintenance storage yard, this parcel contains the highest concentration of showy orchid within the park and contains modest numbers of the Maryland State rare large-seeded forget-me-not and large sweeps of the rare Coville's phacelia. The parcel is completely wooded and not cut with any formal trails.

The second area consists of 29 acres that contains a perennial stream for much of the parcel reach. Boundaries of this area follow the internal park road to the north, the campground to the east, the agriculture lands near the Community Center to the south and the western boundary of the Pepco parcel. This area was well forested as viewed in the 1937 aerial, indicating that the stand is at least 110 years or older, and thereby emulating some old-growth characteristics. The tract includes an east-west trail along the south side of the stream corridor, which has tie-out locations to the Nature Center and Western Branch stream

² Watkins Regional Park Tree Conservation Plan, TCP2 - 156-91, approved on 04/17/13.

³ Old growth characteristics include such measurable elements as later stages of stand development, multi-layered, multi-species, accumulation of large woody debris, 180 years or older, canopy closure, occasional over-story gaps, rich in wildflowers, lack of invasives, larger trees, pit and mound topography, rich O-horizon, occasional standing dead snags, somewhat spongy decompacted ground.

valley to the west and campgrounds and community center to the east. The entire parcel contains aggregates of Coville's phacelia and several other wildflower species including showy orchid, puttyroot orchid, crane fly orchid, and wood aster.

Both areas are dominated by Collington–Wist Complex soils with 2 to 10% slopes, soils that are considered highly fertile, prime farmlands and soils of statewide importance. Both areas have physical connection to other immediately adjacent woodlots that allow participation as long-term genetic movement corridors, so that these parcels do not become isolated from the difference of the park.

The third area for priority protection is an area that meets the criteria as a forest interior dwelling (FID) bird habitat. Interior forest is defined as forest found at least 300 feet from the forest edge. Forest interior habitat is a higher quality forest habitat because it is more isolated, typically with a closed canopy that creates moist, shaded growing conditions, with fewer invasive species. Forest interior habitat is a rare forest environment in urbanized areas because development has fragmented remaining forests into smaller forest patches. Watkins Regional Park has 188 acres of FID habitat within the park. Some of the FID extends to the west, outside of the park's boundary. Most the FID found within Watkins Regional Park has development restrictions due to its location within the 100 year floodplain or within a woodland conservation area. Should areas for future tree preservation be required, it would be wise to target the unprotected FID lands within the park for such preservation actions.

Wetlands and Steep Slopes

The portion of Western Branch within the park (143 acres) is designated as a nontidal wetland of special state concern. The forested active floodplain and bottom lands of Western Branch within the park are considered wetlands of special state concern, which have a 100 foot protection buffer. The buffers often reach to steep slopes, which were found to be high quality mature hardwoods. Bench seeps, typified by skunk cabbage, following soil saturation upslope were common, along with vernal pools that provide habitat for amphibian and reptile breeding. Eight large areas of forested swamp occur within the Western Branch floodplain, with various levels of beaver activity and interspersed of open water, mixed with scrub-shrub, and aquatic forb ecotones



Photo Credit: ESA

Beaver house



Photo Credit: ESA

Classroom in the wetland



Photo Credit: ESA

Large seeded forget-me-knot

based on varied hydrophytic tolerances/preferences. There is a 2003 DNR record of a blue heron rookery.

Seven non-tidal wetlands separate from Western Branch are located in the park. Five are cataloged as forested nontidal wetlands, one as emergent nontidal wetland and one as open water or pond.

Rare, Threatened, and Endangered Species (RTEs)

Maryland Department of Natural Resources (DNR), Wildlife Heritage Service and U.S. Fish and Wildlife Service (FWS) Annapolis Field office were asked for a formal review of the documentation of any State and/or Federal rare, threatened or endangered (RTE) plant or animal species known to occur on-site or nearby of similar habitat. DNR has records of three plant species known to have historically occurred within the park, including Coville's phacelia (*Phacelia covillei*), large-seeded forget-me-knot (*Myosotis macrosperma*) and spring coralroot (*Corallorhiza wisteriana*). Performing a phenology in the spring of 2016 at the time of peak bloom for the three species resulted in a location and subsequent mapping of all three species.

Coville's phacelia was observed in abundance in aggregate matting throughout much of the park and is associated with the oldest forested tracts within the park. Large-seeded forget-me-not was observed as occasional with single stems and grouping of two or three plants. Spring coral root was observed at two specific locations.

Agricultural Lands

COMMERCIAL FARMING

Today, the southern portion of the park's agricultural fields are leased to a local farmer who grows corn and beans on the site. Two of the barns have been refurbished and serve as storage sites for his equipment. To maintain the commercial viability of farming activities, it is recommended that new development activities minimize their footprint on current farmlands and locate in such a manner as to preserve a minimum of 100 congruent acres.

None of the farmland is currently irrigated or fenced, a challenge to operations in years past when an attempt to develop a market garden and orchard planting was done. Wildlife and lack of water defeated the effort. Any change



Photo Credit: ESA

Agricultural land in the southern portion of the park

in farming practices from the current operation of growing beans and corn will need to consider the incorporation of irrigation and fencing.

FARM POND

A large pond, located near Chelsea I, can be reworked to serve as a feature and educational resource for the southern portion of the park. The 31 year old Chelsea Pond was designed by the Prince George's County Soil Conservation District, and is of modern standards, including a low hazard embankment with anti-seep collar, barrel riser, concrete piping and emergency spillway. It is considered an "in-line" pond as it occurs at the confluence of two riverine drainhead drainageways and discharges to a receiving stream (reference the 2016 ESA, Inc. *Nontidal Wetlands and Waters Classification Map*). It would be nearly impossible to design and permit an in-line pond today through the Maryland Department of the Environment and U.S. Army Corps of Engineers, as in-line ponds are typically prohibited due to the thermal loading (heating) of receiving streams.



Pond near Chelsea I

The pond likely intercepts groundwater and has a persistent normal pool elevation, with no seasonal draw-down. The hydrology balance for this size pond is in equilibrium, with a water budget capable of sustaining a persistent normal pool elevation.

At present, the pond provides significant environmental benefits, including habitat complexity for fish, amphibians, and waterfowl, providing breeding, loafing, and feeding opportunities. The pond was specifically designed for water quality as an agricultural best management practice (BMP). The 60 acre

drainage area is primarily agricultural and the buffered riparian drainageways provide a tiered/stacked series of agricultural BMP's and demonstration value to the public. The pond captures sediment fines and pollutants related to crop rotations.

Bats have become an issue of late, due to losses from white-nose syndrome. An important element of bat habitat and bird species that feed on the wing such as swallows, martins, kingfisher, and kingbirds is the ability to fly over open water ponds to feed on seasonal insects.

A safety bench (saturated) can be excavated surrounding the open water edge and then planted to create a littoral fringe of emergent and scrub/shrub wetlands. Fringe wetlands tend to reduce the chances for safety concerns and helps to mitigate Canada goose overuse.

If the pond has lost some of its design capacity because of siltation, a dredge can be performed. Pre-treatment forebays could be installed in the open water near the entry points of the two streams into the pond. Rock weir walls will capture storm flows and slow the water, allowing sediments to drop out of suspension, which can accrue behind the forebay walls, reducing the need for future dredge operations and promote the growth of submerged, floating and emergent aquatic vegetation in the forebays. The forebays can be serviced as needed if they should be topped with sediments, and is more cost-effective than a dredge.

The receiving stream is near the interface transition of riverine intermittent (R4) and riverine perennial (R2) where the stream first starts to express a year-round perennial stream. This area does not necessarily have macroinvertebrates or fisheries associated with perennial waters. The unnamed stream headwater is urban Use Class 1 and not associated with Tier II (high quality) waters.

Historically, the pond location may have been a wetland, similar to other seasonally saturated "headwater percolation bulbs" elsewhere in the park. It would not be difficult to design a grade control step pool system, breach the embankment, drain the pond, and convert the open water into vegetated wetlands, as a form of ecological restoration to a prior, historic condition. Consideration was given to proposing stream restoration of the two tributaries dammed to form the pond. However, the pond has been recognized as an amenity by the Department of Parks and Recreation (DPR) staff and their preference is that it remain a site feature.

Cultural Resources

There are no public maps delineating exact locations of archeological sites within the park. Two archeological investigations have been completed in the park, one for the cell tower and radio facility in the north and the second prior to adding the park drive in the southern portion of the park. Two sites were discovered and registered during that investigation, both located near Chelsea Historic Site. Chelsea Manor/Historic Site sits on a parcel that is governed by a designated historic environmental setting.

The entire park has the potential for cultural significance. Watkins Regional Park is on land that was part of the former Chelsea Plantation. There are current standing structures associated with the plantation and structures associated with the 19th and 20th centuries, including the OMF which is located on what remains of an early 20th century farm. In addition, 47 known archeological sites are located within two miles of Watkins Regional Park. With the potential of pre-contact American Indian sites and historic archeological resources across Watkins Regional Park, the entire property can be determined as significant, and in need of a comprehensive archeological survey before any ground disturbance occurs.



Photo Credit: ESA



Chelsea Historic Site building photo on left and protected parcel boundary noted in purple linework, on right

Impact of Natural and Cultural Resources on the Planning Effort

Watkins Regional Park has limited expansion space. Although large in size, much of the land is protected or carries development restrictions. Other land is subject to policy direction in terms of long-range agriculture preservation on parkland in balance with the provision of needed active recreational facilities.⁴ Large areas of Watkins Regional Park are considered to be significant natural or cultural resources, and carry restrictions on what may take place in those areas. The Western Branch of the Patuxent River lies in the western third of the park and its associated wetlands are identified as a Wetland of Special State Concern. Forest lands in the same general area are large enough geographically to be valued as forest interior dwelling (FID) bird habitat. Steep slopes of 25% or greater are found on both sides of the Western Branch, particularly on the southeastern section with the park. Additional slopes greater than 25% are found across the southern boundary of the park and at its very northeastern corner. Tree conservation plans have development restrictions in place on 34% of the park.

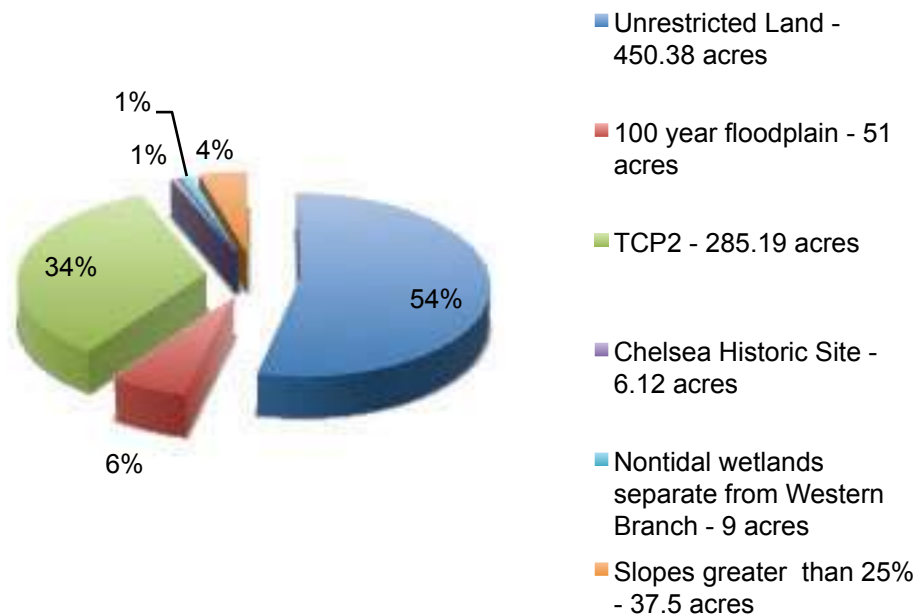


Diagram illustrating acres with some form of development restriction in Watkins Regional Park

⁴ Formula 2040, page 108.

Overarching Recommendations

- Meet increasing Demand (Current and Future)
- Celebrate the Strengths of the Park and Expand its Regional Reach
- Protect the Natural and Historic Elements
- Make the Park a Life Learning Lab
- Develop Tournament Sports Facility
- Integrate Largo / Kettering / Perrywood Community Center into Watkins Regional Park
- Improve Walking and Biking Connections
- Accommodate Big Events and Everyday Visits

Old growth forest located so close to Washington, D.C. is unique. The forest at Watkins Regional Park has an abundance of Rare, Threatened and Endangered (RTEs) plants and orchids. Old growth forest offers a valuable interpretive opportunity for WNC programming.

In areas designated as high priority or FID forests, trails and other incursions should be minimized, leaving the healthy, mature, and a remaining stand of high quality forest undisturbed. Trails and other improvements create paths for invasive species to invade and spread. Any improvements that may present or cause impacts to the Wetlands of Special State Concern (WSSC) require extra mitigation. The Maryland Department of Natural Resources (DNR) will advocate strongly against actions that have impacts to RTEs, so choose actions and areas of potential impacts carefully.

Chelsea Historic Site and its associated outbuildings and entry lane are significant cultural features. All of the parkland requires archeological exploration prior to any construction work. Several culturally important sites are noted on internal county documents, but are not publicly accessible. Much of the level land in the southern portion of the site is actively farmed by a local farmer who leases the property. Prince George's County has adopted policies that speak to the importance of maintaining and protecting high quality farmland within Prince George's County.