



MEMORANDUM

November 12, 2015

TO: Montgomery County Planning Board

VIA: Mike Riley, Director of Parks *MGR*
 Mitra Pedeem, Acting Deputy Director of Park *MP*
 John E. Hench, Ph.D., Chief, Park Planning & Stewardship Division *JH*
 Michael Ma, Acting Chief, Park Development Division *MM*

FROM: Brenda Sandberg, Legacy Open Space Program Manager *BES*
 Dominic Quattrocchi, Planner Coordinator, Park & Trail Planning Section *DQ*
 William E. Gries, Park Development Division *weg*
 Josh Kaye, Park Development Division *JK*

SUBJECT: Land Acquisition Recommendation, Legacy Open Space Program
 Serpentine Barrens Conservation Park, North and East Units
 DuMont Oaks Corporation properties
 11.13 acres, more or less, improved

Staff Recommendation

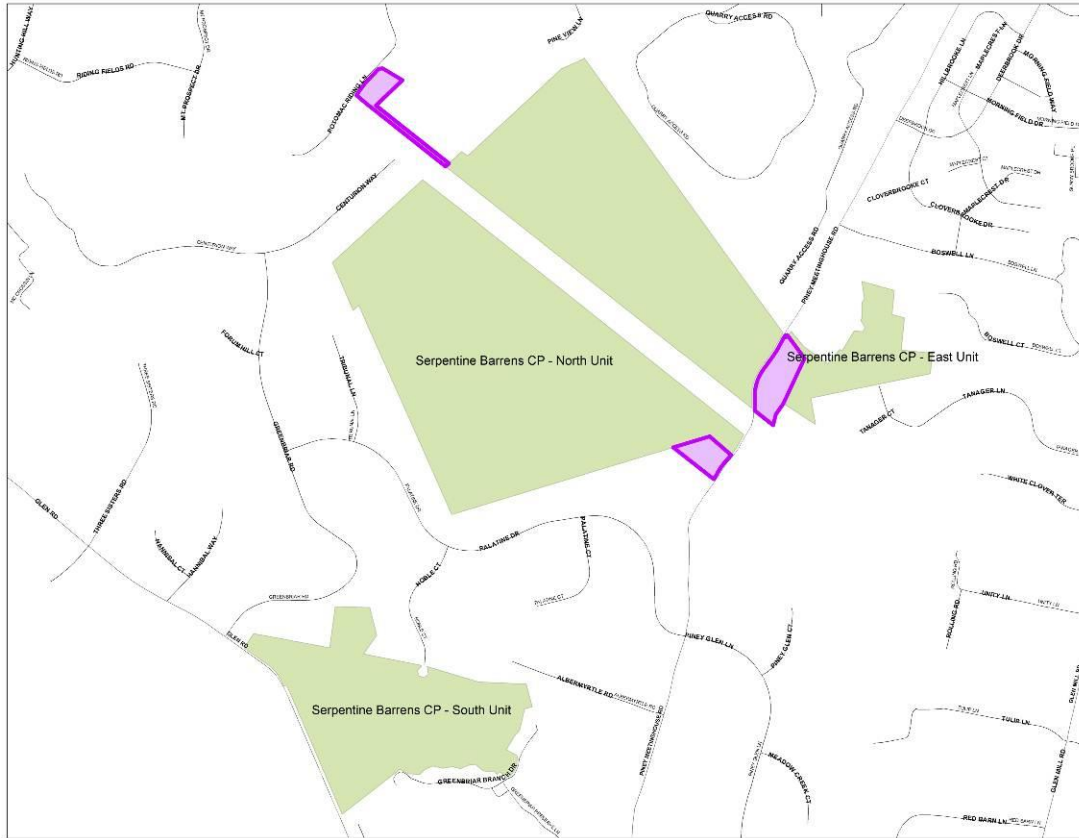
Approve the attached Resolution (Attachment B) to acquire the DuMont Oaks Corporation properties, 11.13 acres, as an addition to the Serpentine Barrens Conservation Park, North and East Units for the negotiated purchase price of \$92,600 to be funded through the Legacy Open Space CIP with Commission bonds.

Background

Site Description

The DuMont Oaks properties consist of three separate parcels scattered around the perimeter of the existing Serpentine Barrens Conservation Park (see Figure 1). The parcels consist of land remaining after the completion of the DuMont Oaks subdivision (also known as the Palatine development) immediately to the south of the North Unit of the Serpentine Barrens Conservation Park (CP). The parcels have no improvements and contain forest comparable to the significant serpentine-influenced forest found on the rest of the Conservation Park (see Figures 2 and 3). This acquisition is an opportunity to add small but important acreage of a very rare forest ecosystem to an existing Conservation Park.

Figure 1: DuMont Oaks Property Locations adjacent to Serpentine Barrens Conservation Park



The properties are located adjacent to the existing Serpentine Barrens Best Natural Area that is considered one of the most important natural areas in the county because of its unique geology and plant community. Serpentine ecosystems are globally rare and occur intermittently in an arc east of the Appalachian Mountains from Alabama to Maine. The largest serpentine ecosystems on the east coast are found in Maryland and Pennsylvania. The Serpentine Barrens Conservation Park Best Natural Area is south of Travilah Road and extends west from Piney Meetinghouse Road, and is directly south of the Rockville Crushed Stone Quarry.

The 2007 Serpentine Barrens CP Operation & Use Plan provides for public access for natural resource-based recreation and interpretation via a natural surface trail network through the park. The envisioned trail network was delayed several years due to negotiations with Pepco to gain permission for park trails to cross the utility right of way. That permission has now been acquired so the natural surface trail network will be implemented soon. Further coordination with the new owners of the electric utility may occur in the future as the new utility company implements their agreement to provide trails along the utility ROWs in some areas. In addition, per the direction of the Planning Board, staff will reevaluate the 2007 Operation and Use Plan trail recommendations, including approved trail user categories.

See Attachment A for additional information about the Serpentine Barrens ecosystem and excerpts from the Operation and Use Plan for the Park.

Figure 2: Aerial Photo of DuMont Oaks properties and Serpentine Barrens Conservation Park



Master Plan & Policy Support

Potomac Master Plan, 2002

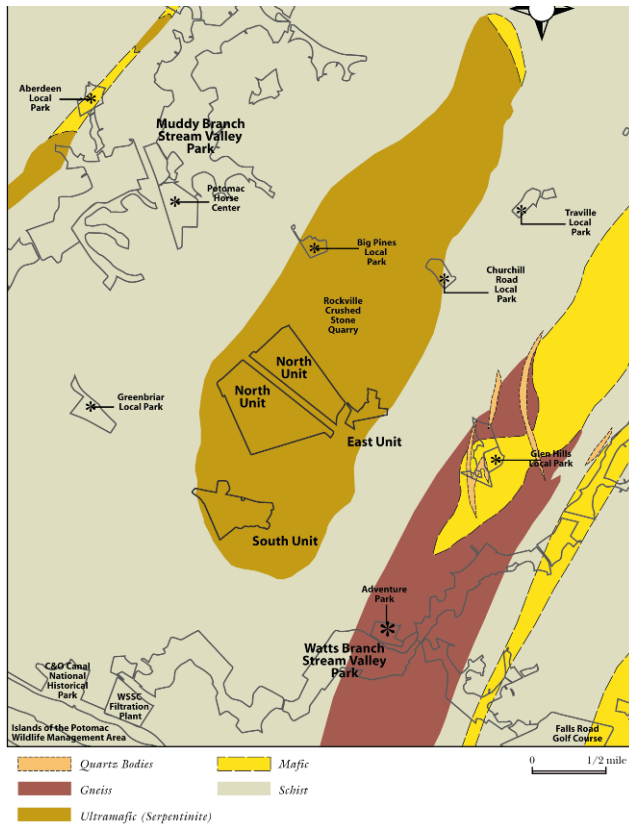
The Potomac Master Plan adopted in 2002 contains land use and open space and parks recommendations that supported the creation to date of the Serpentine Barrens Conservation Park via acquisition and dedication. The Master Plan also includes environmental recommendations to protect existing forest adjacent to private conservation areas and parkland to prevent further fragmentation of the forest cover in this part of the County. This acquisition contributes to that effort to prevent further forest fragmentation to preserve large blocks of interior forest.

Legacy Open Space Functional Master Plan, 2001

The *Legacy Open Space Functional Master Plan* (2001) establishes a program to conserve the “most significant open space as a means of protecting the County’s environment, quality of life, and economic vitality” (p. 1). The Serpentine Barrens was designated in the original master plan as an exceptional Natural Resource, perhaps the most exceptional natural resource identified in the entire LOS Plan. The current extent of the Serpentine Barrens Conservation Park was created through acquisition of the 256-acre North Unit and dedication of the 65-acre South Unit and the 18-acre East Unit. Acquiring this additional 11.13 acres at a very affordable per-acre rate protects additional forest within this rare

ecosystem and provides additional space that may be valuable when providing public access. This property falls squarely in the recommendations of the LOS plan to pursue additional opportunities to protect the globally rare serpentine ecosystem within Montgomery County.

Figure 3: Geology Map Indicating Presence of Serpentinite Under Existing Park and Proposed Acquisition Area



Serpentine Barrens Conservation Park Operation & Use Plan, 2007

The Operation and Use Plan for this park was created and approved by the Director of Parks in 2007. The Plan includes recommendations for future acquisitions that would benefit the park by adding natural resources to the park and land that could be used to improve public access and resource-based recreational options in the park. The DuMont Oaks properties were specifically identified in this management planning document as being important additions to the park if they were to become available for purchase. The Bardon property located between the northern-most DuMont Oaks property and the existing Serpentine Barrens North Unit (outlined in blue in Figure 2) is also identified for acquisition in the Operation & Use Plan. The Bardon property may be logical to pursue after completion of the DuMont Oaks acquisition to provide additional opportunities for trail connectivity to communities and resource protection.

Start-Up Costs & Operating Budget Impact (OBI)

Costs for the management of this acquisition will be very low in both short and long term since it is adding a small acreage with no additional management requirements to an existing 341 acre park complex. Start-up costs to add this property to the park system may include small amounts for any necessary Non-Native Invasive control (up to \$10,000 to be funded through LOS CIP funds), in addition to some initial staff effort to install property markers and correct signage. After initial start-up, Operating Budget Impact (OBI) should be non-existent to minimal since the additional acreage is not expected to create any additional tasks for ongoing Park Operations, Park Police, or Natural Resource Management (deer and NNI control).

This proposed addition to the Serpentine Barrens Conservation Park is a key opportunity to add parkland to one of the County's most rare and unusual park ecosystems.

cc: John Nissel
Doug Ludwig
Bill Tyler
Kristi Williams
Antonio DeVaul
David Vismara
Jim Poore
Shuchi Vera
Megan Chung
Kip Reynolds

Attachment A: Excerpts from Serpentine Barrens Conservation Park Best Natural Area Description and Operation & Use Plan, 2007

The Serpentine Barrens Conservation Park is one of the County's newest and most unique Conservation Parks. The Maryland National Capital Park and Planning Commission (M-NCPPC) created the Park through a combination of purchase and dedication. Dedicated acreage was part of the site plan approvals for the Estates of Greenbrier and the Greenbrier Preserve developments. Acquisition was accomplished as part of Montgomery County's Legacy Open Space program that was created to protect the County's most significant open space resources. The Legacy Open Space Master Plan, approved by the County Planning Board and County Council in 2001, recommended conservation of this property. From the inception of the LOS Program, the Serpentine Barrens has represented the highest priority for acquisition due to the sensitive and rare nature of the resource.

In acquiring Serpentine Barrens Conservation Park, M-NCPPC seeks to achieve the following conservation objectives:

- Maintain the park in its present state as a natural area
- Preserve the park's underlying serpentine geology, which combined with resulting soils supports many unique plant species
- Preserve over 20 identified rare, threatened, endangered, and watchlist plant species within the park, which contains some of the highest biodiversity in Montgomery County outside the Potomac River corridor
- Conserve the large block of high quality contiguous forest that covers most of the site, and is one of the most diverse in the County
- Protect the Greenbrier Branch and its tributaries within the park, including wetlands and sensitive hydrologic features in the park
- Accommodate resource-based recreational uses in the park on natural surface trails such as hiking

The Serpentine Barrens Conservation Park is a 341 acre complex located in southwestern Montgomery County, Maryland, within the Potomac Subregion planning area. The Serpentine Barrens is the only remaining significant undeveloped area of serpentine-derived soils remaining in the County. The property has been known by numerous names including Travilah Barrens, Piney Barrens, Big Pine and Serpentine Barrens.

The park is located south of Travilah Road and west of Piney Meetinghouse Road, between the communities of Big Pine and Palatine Oaks. The park consists of three units:

- North Unit: 258 acres, fee simple acquisition, west of Piney Meetinghouse Rd
- South Unit: 65 acres, dedication, adjacent to Glen Road
- East Unit: 18 acres, dedication, east side of Piney Meetinghouse Road

All sections contain a variety of exceptional natural resources, though the North Serpentine Barrens unit is most significant due to its size, resource composition and limited encroachments by adjacent residential development. The North Serpentine Barrens borders the Rockville Crushed Stone Quarry; the

South Serpentine Area is located on the southern edge of the serpentinite outcrop adjacent to Glen Road; the East Unit is on the east side of Piney Meetinghouse Road.

The Serpentine Barrens area is underlain by serpentinite bedrock. Found only in a few places around the globe, Serpentine communities are exceptionally rare. In North America, serpentinite soils occur in a discontinuous band along the eastern border of the Appalachian Mountains from Newfoundland and Quebec, Canada through New England to Alabama. Nearly 90% of the acreage in eastern North America is within Pennsylvania and Maryland.

Serpentine soils are very low in essential nutrients and high in metals toxic to most plants and animals. These and other factors are responsible for driving “hotspots” of uncommon endemic plant communities, warranting high priority retention for biodiversity conservation. Past development of this natural community has diminished Montgomery County’s and Maryland’s natural heritage. The Serpentine Barrens Conservation Park is the only remaining undeveloped largely intact area of serpentinite-derived soils remaining in Montgomery County.

Best Natural Area and Biodiversity Area Description (256 acres, North Unit of Park)

The Serpentine Barrens Best Natural Area is considered one of the most important natural areas in the county because of its unique geology and plant community. Serpentine ecosystems are globally rare and occur intermittently in an arc east of the Appalachian Mountains from Alabama to Maine. The largest serpentinite ecosystems on the east coast are found in Maryland and Pennsylvania. The Serpentine Barrens Conservation Park Best Natural Area is south of Travilah Road and extends west from Piney Meetinghouse Road, and is directly south of the Rockville Crushed Stone Quarry.

The name Serpentine is attributed to the soil’s resemblance to a mottled greenish brown snake dwelling on a similar soil in northern Italy. The greenish color comes from magnesium in the bedrock. Many locations on the Barrens exhibit exposed bedrock on the surface where this pattern can be observed. Serpentine rock was popular as a building material in the 19th and early 20th century. The bedrock still yields high quality materials for construction as the adjacent Rockville Crushed Stone Quarry can attest- a vast man excavated canyon of nearly 500’ depth.



Serpentine Outcrops in Serpentine Barrens Conservation Park

Serpentine Barrens Conservation Park soils are shallow, poor in nutrients, often limiting in specific nutrients, and high in elements like magnesium, chromium, nickel and cobalt which are inhospitable to many plants. These soils support an unusual composition of species. Because of the soil driven stresses, many of the plants found here have developed special adaptations. There are nearly two dozen rare, threatened, or watchlist plants known to thrive in this best natural area. Their special adaptations allow them to grow in harsh conditions, but generally place them at a competitive disadvantage in other habitats.

The Serpentine Barren, counter to what the name suggests, is entirely forested, except for a utility line traversing the property. The Best Natural Area appears to have remained forested since at least 1900 and probably longer based on review of aerial photography and study of dendrology ring counts. This forested condition is a unique ecological condition from the classic Barrens. The trees are unusually small relative to their age because of the challenging growing conditions of serpentine soils. Therefore, forests appear to be early successional, but in reality are in a climax condition. Oaks as old as 175 years old will have a diameter of trees you would expect to be one or two decades old.

The Serpentine Barrens terrain is generally sloped gently toward Greenbriar Branch in the middle of the park. The steepest areas occur on the hillsides between Greenbriar Branch and the Piney Meetinghouse Road. Riparian wetlands associated with Greenbriar Branch and other intermittent tributaries, vernal pools and perched wetlands are common in the Barrens. Interestingly, a significant portion of this stream natural drainage area was removed with excavation of the adjacent quarry. A few other seeps or spring heads flow immediately out of the park to the west and eventually into Sandy Branch.

Forests on the Serpentine Barrens are mature, with good structure, well developed shrub levels, and relatively few non-native invasive species. The oak (*Quercus*) genus is significant on the Serpentine Barrens with abundant representation and dominance in both the overstory and the understory. Common oak species include white, red, black, post, blackjack, chestnut, swamp white, scarlet, southern red, shingle, and willow oak. Yellow pine, post oak and blackjack oak represent signature species for the Serpentine Barrens Conservation Park. As a collective group, they are not found in the remainder of Montgomery County. The Yellow or Shortleaf Pine is capable of sprouting new growth after fire. In the understory, native greenbrier thickets form a dense, thorny understory in many parts of the park. The largest known concentration of leatherwood, an uncommon woody shrub, occurs not far from the Greenbriar Branch.

The large contiguous forest of the Serpentine Barrens Conservation Park provides critical habitat for forest interior dwelling species, particularly birds. These species require large unbroken tracts of forest to successfully breed. Large contiguous forest habitat is becoming increasingly scarce in Montgomery County as development continually fragments woodlands into smaller isolated tracts. Over 60 species of birds have been detected in the park, including a significant number of forest interior dwelling species such as Louisiana waterthrush, scarlet tanager, ovenbird, pileated woodpecker, and barred owl. Mammals include common species such as red fox, white-tailed deer and gray squirrel, as well as less common species such as eastern coyote. Reptiles include most of the common species of the County as well as the less common eastern hognose snake, five lined skink, spotted turtle and a curiously abundant population of box turtles. Wetlands and vernal pools provide breeding habitat for spotted salamanders, marbled salamanders, wood frogs, spring peepers and other amphibians. Three Lepidoptera species uncommon to Maryland are found in this best natural area. The dusty skipper, cobweb skipper and woodland buckmoth have been found.

An approved network of natural surface hiking trails has been planned and approved for this Best Natural Area. An approximately 3 to 4 mile trail network will be created pending completion of coordination with PepCo and the utility's potential purchaser. Because of the sensitivity of the interior

of the Serpentine Barrens, horseback riding is limited to the park edge along existing established roadbeds.



Serpentine Barrens Conservation Park with the County's largest quarry and residential development in the foreground and background

Attachment B: Planning Board Resolution 15-138

MCPB
15-138

RESOLUTION

WHEREAS, The Maryland-National Capital Park and Planning Commission (“Commission”) is authorized by Maryland Code Annotated, Land Use Article §17-101 (formerly Article 28, Section 5-101 of the Annotated Code of Maryland) to acquire, develop, maintain and operate a public park system within the Maryland-Washington Metropolitan District; and

WHEREAS, the Montgomery County Planning Board received and considered a recommendation from staff of the Commission, in closed session on November 12, 2015, that it approve the acquisition of 11.13 acres of land, more or less, unimproved, (the “Property”) from DuMont Oaks Corporation (“the Corporation”), identified as Maryland Department of Assessments and Taxation’s Tax Account Numbers 06-02658576, 06-03202364 and 06-00389653 as additions to the Serpentine Barrens Conservation Park, North and East Units; and

WHEREAS, there are sufficient Commission bond funded Legacy Open Space (LOS) monies available in the Commission’s FY-16 Legacy Open Space Acquisition Program (CIP) to pay the \$92,600 negotiated purchase price for the Property; and

WHEREAS, the property meets parkland acquisition criteria as additions to the Serpentine Barrens Conservation Park, North and East Units;

NOW THEREFORE, BE IT RESOLVED, that the acquisition of the Property from the Corporation as described above, for a purchase price of \$92,600.00, in accordance with a proposed Land Purchase Agreement between the Commission and the Corporation, is hereby approved by the Montgomery County Planning Board on this 19th day of November, 2015 and the Executive Director is authorized to execute said Agreement on behalf of The Maryland-National Capital Park and Planning Commission.

* * * * *

This is to certify the foregoing is a true and correct copy of a resolution adopted by the Montgomery County Planning Board of The Maryland-National Capital Park and Planning Commission on motion of Commissioner _____, seconded by Commissioner _____, with Commissioners _____, _____, _____, _____, and _____ voting in favor of the motion at its regular meeting held on Thursday, November 19th 2015 in Silver Spring, Maryland.

Casey Anderson, Chair
Montgomery County Planning Board