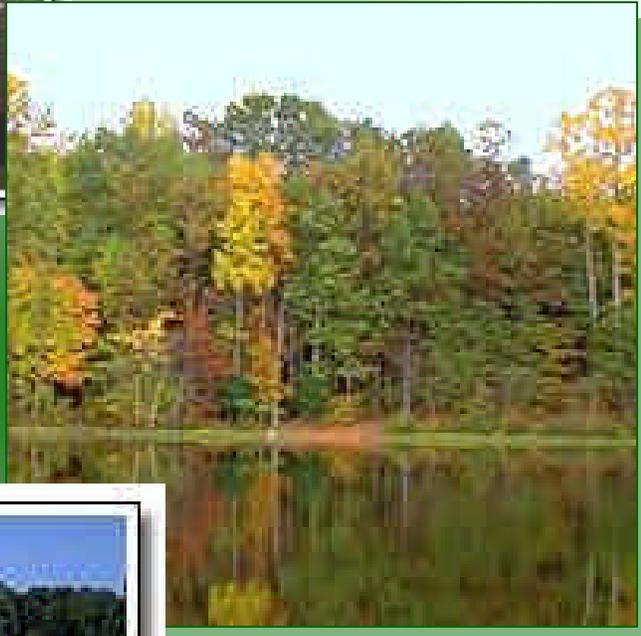


Burke Lake Park

Master Plan Amendment



Approved 1/30/02



ACKNOWLEDGEMENTS

Fairfax County Park Authority Burke Lake Park Master Plan Amendment

January 2002

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I. INTRODUCTION

A. Purpose and Plan Description

The purpose of this master plan amendment is to update the plan that was first approved in May 1964. Since approved, this plan has served as a guide for all planning of the site. This master plan amendment is a means to update the plan by possibly adding other new elements. When approved, this document will serve as a guide for all future planning on the site and should be referred to before any planning and design projects are initiated.

The plan will address new conceptual development, describing what facilities should be developed based on a variety of factors, how they fit into the established plan, where they will be constructed and how these facilities will be operated in conjunction with other areas of the park and existing uses.

B. Property Description

Burke Lake Park is located in the Springfield Supervisory District at 7315 Ox Road in Fairfax Station, Virginia (See Vicinity Map on page 5) and is approximately 883.4 acres in size. It is comprised of a variety of natural habitats in conjunction with developed recreational facilities. These facilities include a golf clubhouse, driving range, par 3-18 hole golf course, Frisbee golf course, concession center, trails, boat rentals, camping, fishing, marina, carousel, mini train, picnic shelter and areas, and playgrounds. In total, these facilities presently occupy less than one-half of the park acreage. Approximately 440 acres of the park are developable for recreational uses, mainly in the park core area and the natural area located at and along the east boundary of the park. The remaining acreage is restricted from development because of excessive slopes, vegetative cover and pre-

historic and historic sites.

Vehicular access to the park is from Route 123 Ox Road near the intersection of Ox Road and Burke Lake Road. The northeastern boundary of the park lies along the Fairfax County Parkway. The northwestern boundary of the park lies along Burke Lake Road where some vehicular access is possible. Some walk-in access trails are utilized along Ox Road, however, nothing formal has been established.

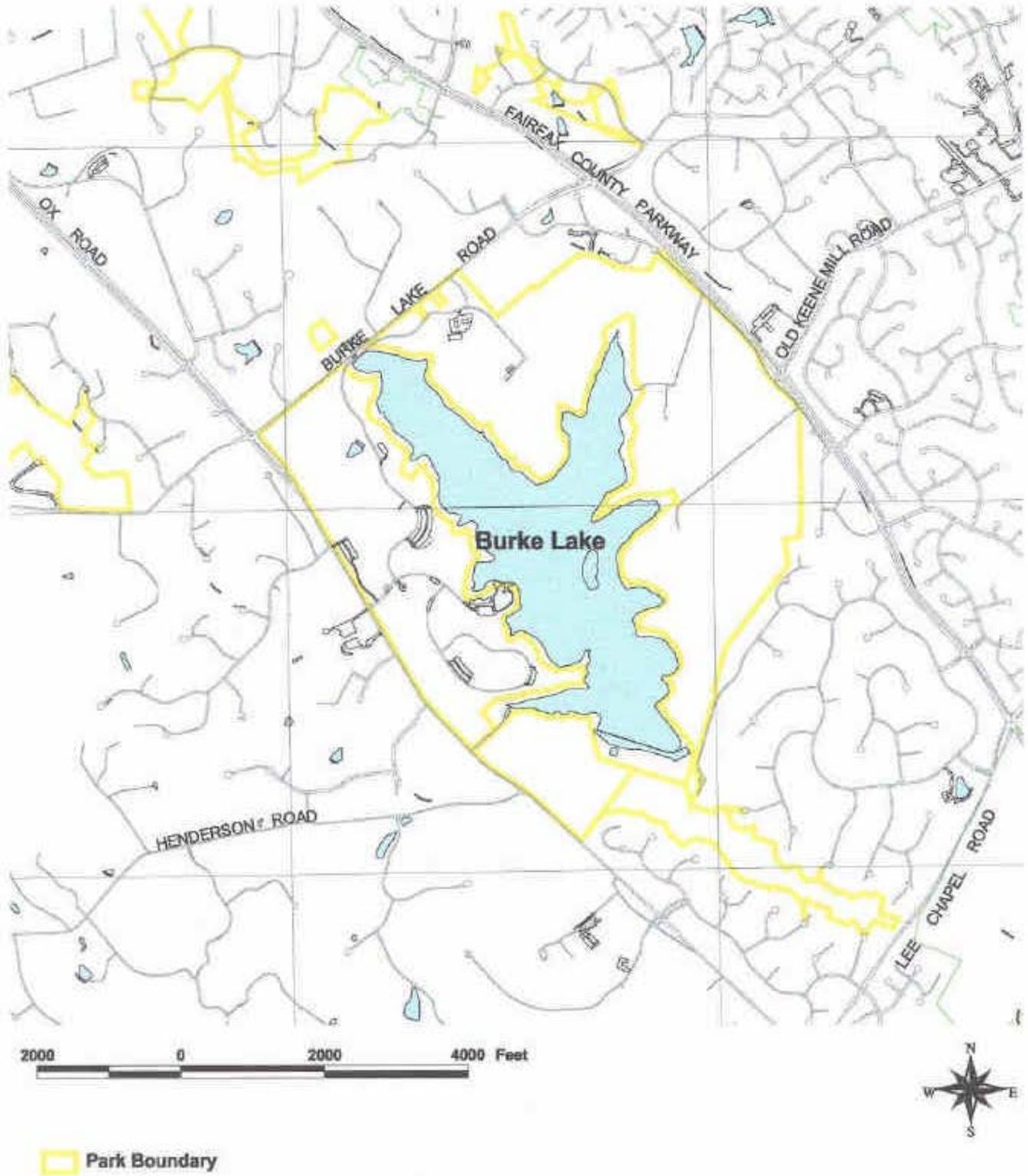
South Run is the major stream access within the park on the northwestern and southeastern boundaries. Burke Lake is a Chesapeake Bay Resource Protection Area. A small percentage of the park (where South Run enters and exits the lake) lies within the one hundred-year flood plain. The Virginia Department of Game and Inland Fisheries owns the lake and manages it as a recreational fishing lake.

II. PARK CLASSIFICATION

A. Multiple Resource Park

Burke Lake Park falls under Fairfax County Park Authority classification 4.4, Multiple Resource Park, which provides a diversity of recreational opportunities in both natural settings and intensely developed indoor or outdoor facilities that can accommodate large numbers of people without significant deterioration of the recreation experience. These parks are located throughout the county. This category of park is oriented to activities that involve an individual or group for a time period ranging from most of the day to a week and which may attract large numbers of spectators or participants. Facilities may include complexes of lighted tournament level athletic fields and special features such as miniature trains, carousels

BURKE LAKE PARK



Burke Lake Park - Vicinity Map

and miniature golf.

III. PARK PURPOSE & SIGNIFICANCE

A. Park Purpose

Park purpose statements are intended to provide an umbrella for planning and decision making. If a proposed use conflicts with any one of the purposes listed, it will be considered an incompatible use. By establishing park purpose, future plans can remain flexible.

The purpose of Burke Lake Park is to:

- preserve, protect and restore natural resources;
- preserve and protect cultural resources;
- provide active recreation for all county citizens;
- generate revenue to support the operation, maintenance and restoration of park resources and facilities.

The purpose statements are not intended to be mutually exclusive. They are intended to be integrated into a common purpose of protecting the existing resources, providing recreation and generating revenue.

B. Park Significance

Burke Lake Park is important to the Fairfax County park system because it provides geographically unique water-based recreational opportunities with the marina, fishing pier and boat rentals and other lake activities. Other facilities unique to the area include a carousel, mini train, picnic facilities for large groups and campgrounds for every leisure experience from individual tent campsites to group campgrounds and large

recreational vehicle sites. Additional prominent features include the golf clubhouse, driving range, par 3-18 hole golf course and Frisbee golf course. The park provides for storm water and sediment control and provides aquatic and terrestrial wildlife habitats in a suburban area.

IV. EXISTING FACILITIES

A. Listing of Existing Facilities

The following facilities are currently existing at Burke Lake Park:

- Golf Club House
- Par 3-18 Hole Golf Course
- Driving Range
- Frisbee Golf Course
- Concession Center
- Amphitheater
- Bike, Equestrian, Fitness, Hiking, Nature and Historic Trails
- Marina
- Boat Rentals
- Fishing and Pier
- Carousel
- Mini Train
- Primitive Camping Facilities
- Camping Facilities
- Picnic Shelters
- Natural and Open Areas
- Playground and Tot Lot Facilities
- (4) Restrooms
- (7) Parking Lots

V. EXISTING SITE CONDITIONS

A. Natural Elements

1. Topography – A slope analysis of the park was completed that defined slopes of 0-5%, 5-7%, 7-10% and over 10%. A small percentage of the park has slopes greater than 10%. The areas for the proposed

BURKE LAKE PARK

facilities are located in areas which are in the 0-5% range. (See Topographic Map on page 8)

2. Soils – A total of 11 soil types are found within Burke Lake Park. A brief summary of each soils type is included. (See Soils Map on page 9)

Wedhadkee, soil type #5A (0-2% slopes)
Soils consist of organic silts and clays eroded from schist, granites and gneiss. This soil occurs within floodplains and is subject to flooding. Depth to hard bedrock ranges from 8 to 20 feet. Permeability is slow.

Glenville, soil type #10B
This soil occurs in drainage ways and foot slopes. Depth to hard bedrock ranges from 10 to 100 feet. Permeability is moderate. Surface grading is needed to eliminate wet areas.

Rocky Land (acidic rock) (rolling phase), soil type #18C1
Rocky land, rolling phase, consists principally of areas so characterized by rock outcroppings, loose stones and cobbles as to make soil differences insignificant.

Meadowville Silt Loam, soil type #20B
This soil is a deep and well to moderately well drained friable fertile soil. It occurs mainly in depressions at the heads of drainage areas.

Manor, soil type #21C
This silty and sandy soil occurs on sloping uplands underlain by micaceous schist. The soil is difficult to compact; requiring engineering designs for use as structural fill. Manor is highly susceptible to erosion.

Elioak (undulating & rolling phase), soil type #24B1, 2 & 24C1, 2
Elioak silt loam, undulating phase is a deep, well-drained soil that is formed from

weathered materials. Workability, productivity and water holding capacity are good.

Fairfax Silt Loam, (basic rock), soil type #32B
This upland soil consists of a discontinuous dense layer that results in a "perched" seasonal water table at 1.5 to 2.5 feet below the surface. Permeability is moderately slow. Grading may be needed to eliminate wet areas.

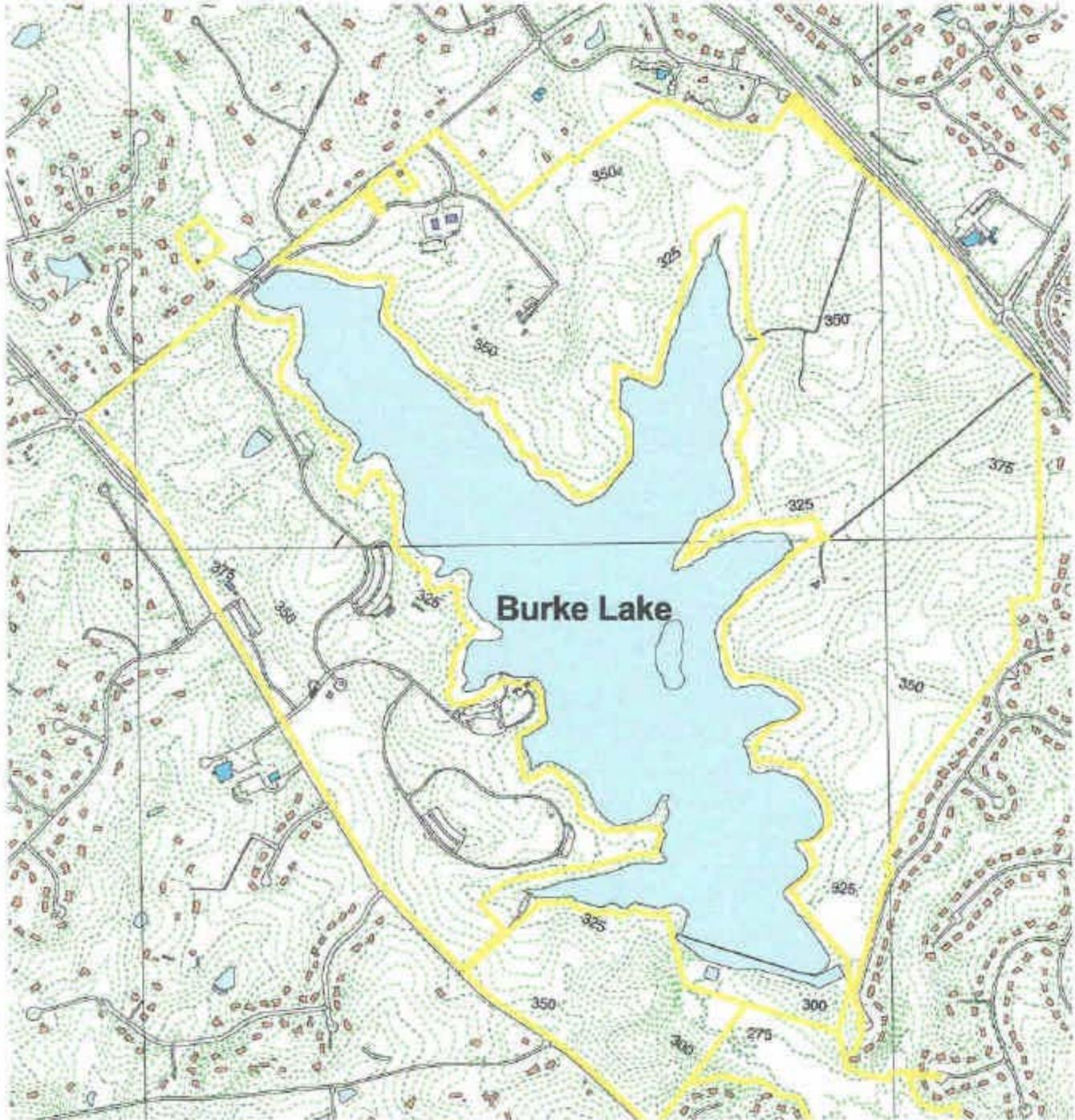
Glenelg Silt Loam, soil type #55C
This soil occurs on hilltops and side slopes underlain by micaceous schist. Silts and clays overlie silty and sandy decomposed rock. The soil tends to "fluff" up when disturbed and is difficult to compact, requiring engineering designs for use as structural fill.

Appling, soil type #60C
Permeability is moderate to moderately slow in the upper soil. Subsurface permeability is typically moderate to moderately rapid, but may include relatively impermeable clay seams. The plastic sub-soils are difficult to compact and move when wet.

Loamy/Gravelly Sediments, soil type #61A
Layers of plastic clays may be found in areas where Marine Clays occur. Permeability, high water table and drainage conditions are variable. Suitability for urban and residential use is site-specific, depending on actual soil conditions.

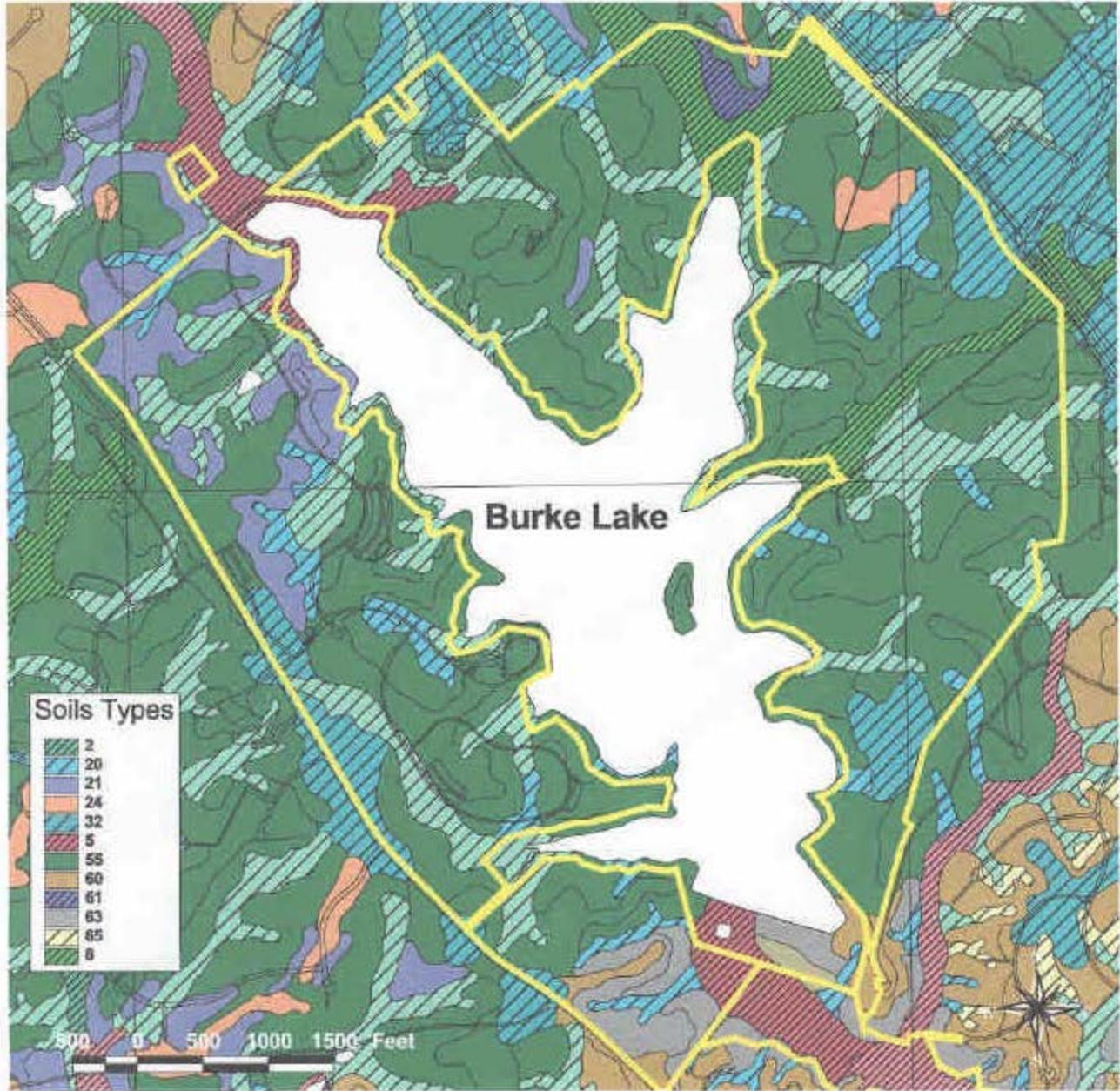
Louisburg, soil type #63C
Permeability is rapid. The shallow depth to hard rock (1 to 4 feet) in some places decreases the potential suitability of these soils for septic drain fields and infiltration trenches.

BURKE LAKE PARK



Burke Lake Park - Topo
Contour Interval - 5 feet





Burke Lake Park - Soils Map

-  **Park Boundary**
-  **Group A Soils - A geotechnical engineering report is mandatory for all construction and grading within these problem soil classes.**
-  **Group B Soils - A geotechnical engineering report may not be required if the site plan includes adequate provisions to address soil related problems.**
-  **Group C Soils - These soils typically have few problems that would adversely affect most urban uses.**

B. Prehistoric and Historic Cultural Resources

Within the three proposed areas for the construction of a mini golf course, croquet area and lawn bowling area, (see Attachment III, page 16), a pedestrian survey and background historic research indicated that no cultural resources would be disturbed. Burke Lake Park does have many interesting prehistoric and historic archaeological sites that require protection from park development. Their treatment should be addressed once an archaeological treatment plan for the entire park is developed that will prevent accidental destruction of cultural resources.

Burke Lake Park is an important part of the Park Authority's Revenue Fund operations. The golf course and driving range generate over \$1 million annually while the rest of the park contributes approximately \$500,000 annually. These funds are used to support the operational and maintenance costs for the park. In Fiscal Years 1997 and 1998 the amount of funding allocated from the General Fund to support operations has decreased. In response, site staff has initiated management changes that have nearly doubled the amount of non-golf revenue earned over the last two years.

VI. PARK OPERATIONS

A. Overview

Burke Lake represents the prototypic "park" definition. A largely undeveloped tract of natural areas with widely separated recreational facilities connected by scenic roadways and trails. The centerpiece of the park is the 218-acre lake. Burke Lake Park provides a heavily populated area of the county with a respite from suburban development while providing significant recreational opportunities and wildlife habitat.

The park attracts visitors from beyond the county borders for camping, fishing and to picnic. The local community is served by these opportunities as well as by the golf, playgrounds, amusements and trails. The park grounds and golf facilities are open year-round, however, other staffed facilities are open on a seasonal basis with the bulk of the visitation occurring March through November. During quality weather weekends in the spring and fall, the park may fill to beyond capacity, backing up traffic on Route 123.



BURKE LAKE PARK

B. Primary Recreational Use Areas

| A Summary of Primary Recreational Use Areas Currently Existing at Burke Lake Park | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Recreational Use Area | Significance |
| 18 Hole Golf Course/Clubhouse | Popular facility with Countywide audience appeal, key facility in FCPA's revenue fund operations. |
| Driving Range | Popular facility with Countywide audience appeal, key facility in FCPA's revenue fund operations. |
| Ice Cream Parlor | Serves local community audience, picnickers and users of the entire park where it serves as a value-added entertainment attraction |
| Carousel | Serves local community audience, picnickers and users of the entire park where it serves as a value-added entertainment attraction |
| Mini Train | Serves local community audience, picnickers and users of the entire park where it serves as a value-added entertainment attraction. |
| Boat Rentals/Pier/Boat Launch | Serves countywide audience. Provides added entertainment attraction to picnickers and park users. Important resource for local fisherman |
| Primitive Camping Facilities | Primitive camp sites with no improvements serving local groups. |
| Camping Facilities | Tent and RV camping serving local groups and tourists |
| Open Areas | Serves local community audience and youth sports |
| Frisbee Golf | Serves local community audience appealing to teens and young adults. |
| Picnic Shelter/Areas | Serves countywide community audience for family and group outings. |

C. Use

Although Burke Lake Park is open year-round, the majority of use occurs in the nine-month season extending from March through November. In FY 01 park attendance exceeded 850,000 and when combined with golf and driving range use the total attendance rose to nearly 1 million.

The most heavily visited portion of the park includes the lakeside trails and picnic areas.



While no attendance numbers are available for these uses, there is anecdotal evidence of a steady increase. Within recent years, three new picnic shelters and three additional playgrounds have been built to accommodate demand.

The amusement area does have attendance tracking and includes the Ice Cream Parlor, miniature train, carousel and playground. In FY 00 the amusement visitation was 76,932.

Attendance at the campground was 7,534 in FY 00. Marina use for the same period was 8,931.

The number of golf rounds in FY 00 was 56,886.

D. Funding

Annual operation and maintenance of Burke Lake Park is funded through two sources. The

County's General Fund pays for general ground maintenance. All other functions within the park are funded through the Park Revenue Fund that is derived from fees paid by park users. General Fund support has steadily declined over the past several years and in FY 2001 70% of the park's budget was derived from revenues.

E. Operational Issues

Roadways and Parking Lots In Need Of Repair. The site has significant asphalt in need of repair and replacement. Funding has been requested each year for several years without success. It is estimated that over \$1 million is needed to address existing deficiencies.

Ice Cream Parlor/Amusement Area Improvements Needed. Alterations are needed at the Ice Cream Parlor to accommodate existing and future visitation. This includes renovations to improve efficiencies and alterations for new services. In addition, a shelter is needed for the party events and a permanent cover should be provided for the carousel.

Campground Improvements. Upgrades are needed to provide the electrical and water hookups desired by patrons.

Administrative Consolidation. The park and golf course staff needs to share common administrative space in order to be managed efficiently. This would also improve service to park patrons who now may have to go to two different sites to get the assistance they desire. A new clubhouse is needed for the golf course, so it would be advisable to consider relocating it and the roadway entrance in order to combine the golf and park functions.

Driving Range Renovation. The driving range

presently lacks the covered stalls and other amenities that are standard in newer facilities. In order to stay competitive and properly serve existing patrons, the range should be upgraded and enlarged.

VII. CONCEPTUAL DEVELOPMENT PLAN (See Attachment III, Page 16)

A. Conceptual Development Plan

A Master Plan Amendment updates the current park master plan that was originally approved in May 1964. The Conceptual Development Plan (CDP) contains descriptions of the concept plan elements, design concerns and a plan that shows the general locations of recommended facilities.

1. Description of New Plan Elements

a. Park Entrance Trail Access

The existing park entrance, located on Ox Road, currently has several informal trail entrances. Park trail access should be developed that would incorporate Virginia Department of Transportation's planned realignment of Ox Road. The existing informal trails should be filled in with landscaping materials to match existing conditions. New trail access should occur at the entrance to Burke Lake Park and the golf course entrance. Both access trails should then be connected to provide increased safety for pedestrian park visitors. This can be accomplished through a connector trail on the north side of the tree stands and brush along Ox Road. Provisions should also be made to provide signs at the entrances for park hours of operation.

b. Mini Golf Course

An 18 hole mini golf course will contain design elements that include changes in elevation, water hazards, landscaping and fountains. In the design, some train related features will be included, however, the train theme will not be over emphasized. Features such as a tunnel, trestle crossing and/or switchback may be included.

c. Croquet

The dimensions of a croquet green are 105 ft. by 84 ft. and a 5-ft. shoulder on all four sides. The field should be smooth and flat with a grass surface similar to a putting green.

d. Lawn Bowling

The dimensions of a bowling green are approximately 120 ft. by 120-ft. minimum but may be as large as 132 ft. by 132 ft. The field should be smooth and flat similar to a putting green. The site should be large enough to eventually accommodate 3 greens with a clubhouse-like structure and parking facilities. The clubhouse structure should accommodate a meeting room and storage area.

e. Additional Parking

Additional Parking is proposed for several areas in the park. Approximately 30 parking spaces will be added near the proposed croquet green, approximately 50 parking spaces will be added adjacent to the proposed mini golf area, approximately 25 spaces and 150 spaces will be added near the picnic areas. The proposed total number of parking spaces within the park will increase by approximately 255 spaces.

2. Description of Existing Plan Elements to Be Retained On the Master Plan

a. Core Facilities

The park 'core' includes the park offices, golf facilities (consisting of a par 3-18 hole golf course, driving range and golf club house), concession center, carousel, mini-train, boat rentals/pier fishing/boat launch, primitive camping facilities, camping facilities, open areas, athletic areas and adjacent parking areas. All these areas should be considered focal points or destinations for people gatherings where people can interact, whether meeting simply to enjoy park activities or just relax. A park family entertainment node is being established in the south central portion of the park. The existing elements, as mentioned above, create a family center. In addition to the existing golf facilities, an 18-hole mini-golf course is envisioned for the family entertainment node. Aesthetically pleasing and family oriented elements for the mini-golf facility should be incorporated into the design. With the realignment of Ox Road and the addition of a roadside/easement trail, adjacent homeowners and their families will have increased pedestrian access to the park. It will be necessary to include trail access into the park for full accessibility to the family entertainment node features. Comfortable benches for quiet relaxation should be installed along the trails into the park.

1. Golf Facilities

The Par 3-18 hole golf course is located in a slightly wooded setting. It is ideal for beginning golfers and will challenge more advanced golfers with

their short game. The golf course includes a putting green and a lighted driving range with 40 stations and practice sand trap. Although open year-round, hours vary seasonally. The driving range is located just east of the golf course and clubhouse. Parking is available. The clubhouse provides food service, club and pull cart rental and golfing supplies.

2. Family Entertainment Node

The family entertainment node consists of a concession center, carousel, mini-train and children's zoo. The concession center houses an ice cream parlor and snack bar. The carousel is located adjacent to the ice cream parlor and has replica antique horses complete with music. The mini-train station is located next to the ice cream parlor as well. The mini-train winds its way through the lakeside woods. The children's zoo is an un-built facility to be located in this area.

3. Boat Rentals/Pier Fishing/Boat Launch

Rowboat rentals are available to be used in the lake. The boat launch can be used for the boat rentals or private launch. Adjacent to the boat launch is the fishing pier. Bait and tackle sales are also located in this area. A marina/boat area located on the eastern side of the lake is to be retained on the master plan although it is not built.

4. Camping Facilities

Camping facilities are composed of 2 types at Burke Lake Park. Camping facilities are comprised of 163 shaded campsites with sinks, showers and

toilets, a dump station, public telephones, a camp store, ice machine, picnic tables and grills. Primitive camping sites are located in the northeastern part of the park. The primitive sites have no amenities or improvements and focus on small groups such as the Boy Scouts.

b. Other Plan Elements

1. Frisbee Golf Course

There is a Frisbee golf course located near the carousel and ice cream parlor.

2. Bike, Equestrian, Fitness, Hiking, Nature and Historic Trails

A series of trails of varying widths and surfaces exist within the park. The trails are located near the western edge of the lake and run throughout the park. They consist of bike, equestrian, fitness, hiking, nature and historic trails.

3. Picnic Shelters

Three picnic shelters are available for rental and located throughout the park.

4. Open Areas

There are a total of 9 open areas located throughout the park. Three open areas are located in and around the train area. There are 2 open areas located at the campground and 2 at the picnic loop. There is 1 open area at the Marina and 1 at the information center.

5. Playground and Tot Lot Facilities

There are 4 newly renovated

BURKE LAKE PARK

playground/tot lot facilities located throughout the park.

6. Restrooms

Four restrooms are available for public use.

7. Parking Lots

There are 7 parking lots located throughout the park.

8. Service Building

The service building is planned to support the marina/boat area.

9. Amphitheater

The amphitheater is located near the camping facilities.

10. Overlook

The overlook provides vistas towards the southwest shore of the lake.



Burke Lake Draft Master Plan Amendment

Proposed Conceptual Development Plan

