

**REPORT OF THE
DEPARTMENT OF CONSERVATION AND RECREATION**

Virginia State Parks Planning Standards and Status

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



SENATE DOCUMENT NO. 17

**COMMONWEALTH OF VIRGINIA
RICHMOND
2002**



James S. Gilmore, III
Governor

David G. Brickley
Director

Ronald P. Hamm
Secretary of Natural
Resources

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street
Richmond, Virginia 23219-2010
TDD (804) 786-2121

December 2001

The Honorable James S. Gilmore, III
Members, Virginia General Assembly

Dear Governor Gilmore and General Assembly Members:

It is my pleasure to present to you the Department of Conservation and Recreation's annual report to the Governor and the General Assembly on the extent to which the Commonwealth is meeting park and recreational needs. It is especially noteworthy that this year our Virginia State Parks System was honored with the most prestigious award that any state park system can achieve: The National Gold Medal Award. This report is in accordance with the Department's standard as originally developed and presented in the 1996 *Virginia Outdoors Plan* and pursuant to the requirement of §10.1-200, item 8, of the *Code of Virginia*.

The standard is based upon Virginia's current population of 7,078,515. Also, park usage, population trends and densities, and outdoor recreational facility demands are considered when the standard is developed. The standard is expressed in terms of acres and facilities needed on a regional and statewide level to serve existing and projected needs and conservation goals.

I trust this report will be of interest and service.

Respectfully presented,

A handwritten signature in cursive script that reads "David G. Brickley".

David G. Brickley

Enclosure

cc: The Honorable Ronald P. Hamm
The Board of Conservation and Recreation

Report on Virginia State Park Planning Standards and Status

December 2001

Purpose: To determine the extent to which the Commonwealth is meeting its public park and recreational needs as defined in §10.1-200, item 8, of the *Code of Virginia* (Chapter 780 of the 1998 Acts of the Assembly and formerly Senate Bill 290). (See attachment A.)

Establishment of Standard

Virginia Outdoors Plan:

The *Virginia Outdoors Plan* (VOP) is the basic outdoor recreation planning guide for the Commonwealth of Virginia. The first plan, *Virginia's Commonwealth*, was published in 1965. In that plan and each subsequent edition, demand for recreation areas and facilities has been a component of the analysis for determining the recreational needs of Virginians. In order to refine and more precisely quantify demand and needs, an outdoor recreation survey and an inventory review process were initiated in 1972. Since that time, these have been completed as part of the five year planning cycle associated with the publication of the *Virginia Outdoors Plan* (VOP) [the plan is also known as the State Comprehensive Outdoor Recreation Plan or SCORP]. The survey and inventory provide data by locality and planning region.

In the most recent plan (the 1996 VOP), the planning district (PD) boundaries were adopted as the boundaries for recreation planning regions. This permits the presentation of inventory and demand data and the subsequent calculation of need in a format that is uniform across the state and is readily adaptable and useful to already established statistical areas. The new inventory of outdoor recreation resources was completed in December 1999. The outdoor survey was initiated in January 2000, completed in December 2000, and will be incorporated into the 2001 *Virginia Outdoors Plan* to be completed by December 2001.

Area Standards:

Area standards for recreational development are suggested in the *Virginia Outdoors Plan* (VOP). The plan identifies area standards, space standards, and capacity standards in Appendix-A of the document. The plan suggests a standard for Virginia's State Parks of 10 acres/1000 population. Area standards represent a minimum acreage, which should be exceeded when possible. These standards are reviewed during the development process of the VOP and revised as appropriate. The most recent review cycle was a part of the development of the 2001 *Virginia Outdoors Plan*.

Outdoors Recreational Area Facility Demands:

The Virginia Outdoors Survey defines the demand for outdoor recreation. This survey addresses standard questions pertaining to participation in outdoor recreation; e.g., time requirements to reach recreation destinations, and ownership (public or private) of facilities where recreational activity took place. Thirty-nine activities are surveyed. For ease of use, data is broken down by county, city, planning district, physiographic region, and the state as a whole. Survey results are developed for each locality in the state. Detailed information is published in the Virginia Outdoors Survey Report and generalized results appear in the *Virginia Outdoors Plan*.

Outdoor Recreation Area Supply:

The existing supply of recreational facilities forms the link between recreational demand and the need for outdoor recreational opportunities. An updated inventory of outdoor recreation supply is undertaken on a five-year cycle and is coordinated to coincide with the development of the *Virginia Outdoors Plan*. The current inventory update was completed in December of 1999. The updated inventory of outdoor recreation supply is a defining element in measuring needs in the Commonwealth. The need for outdoor recreation is calculated from an assessment of the supply and demand data. This provides a reasonably accurate guide for directing the expenditure of local, state, and federal resources and suggests emphasis for governmental and private acquisition and development programs.

Population Trends and Densities:

The population estimates developed by the Weldon Cooper Center for Public Service at the University of Virginia form the benchmark population data for the development of population projections and acreage and facility needs. The reports prepared by the center provide data from recent census, population change statistics, and other related information for the state, localities, and the planning districts. These figures are used in the development of the *Virginia Outdoors Plan* demand data and in the determination of the need for additional acreage and facilities to meet outdoor recreation demand.

Summary:

The *Virginia Outdoors Plan*, with its standards, inventory, and demand data base, combined with the population information contained in the Weldon Cooper Center reports, provide the basic information needed to determine whether Virginia is meeting open space and recreation needs. The five-year schedule for revising the document through a public input process assures that the database is current and that recommendations in area, facility, and capacity standards are appropriate.

State Park Acquisition and Development Standards

Area Standards and Service Area:

The Commonwealth of Virginia has developed a regional planning approach to organizing and defining population trends and programs to meet the service needs of citizens and visitors to the state. This has been accomplished by dividing the state into twenty-one planning districts (PDs). The 1996 *Virginia Outdoors Plan* organized recreation planning by adopting the boundaries of the planning regions as recreation planning regions. Utilizing the same demarcations complements and reinforces existing state planning efforts.

The Recreation Planning District(s) in which a state park is located or proposed is the facility service area. Population trends and densities are identified using the most current census information, as well as the population estimates developed and published by the Weldon Cooper Center for Public Service at the University of Virginia. The planning standard of a minimum of 10 acres/1,000 population should be applied when determining the adequacy of state park lands.

Outdoor recreational facility demands:

Each park or proposed park is a unique resource, which is developed to meet specific resource and visitor needs. Facilities are developed so that they will not negatively impact the values for which the park was acquired. Specialized activity areas based on identified public demands are grouped in use-nodes along a central circulation system. The remaining area of the park, as much as 80% of the site, may be left as natural, undeveloped, but usable open space for such activities as hiking, fishing, bicycling, and horseback riding, as well as natural, historic, or cultural resource study.

Numbers of facilities should be based on the needs and space standards identified in the *Virginia Outdoors Plan* for the park service area. The demand data developed for planning districts and the individual jurisdictions are based on the Virginia Outdoors Survey, which is conducted or updated on a five-year cycle that correlates with the five-year *Virginia Outdoors Plan* cycle. The current survey was based on the 2000 census data. The response rate for the current survey resulted in 97% certainty that the data represent actual attitudes of the population as follows: within 2.0% accuracy at the statewide level and within 4.0% accuracy at the regional planning district commission and local levels. The 2001 Report will reflect changes as a result of the 2000 Demand survey and nationwide census. Attachment B reflects the most currently available information on supply, demand, and need.

Park Usage:

The utility of the park is determined by the resource base and the constraints that particular base places on the development of facilities to meet public demands. The state park master plan defines the level of development and programming that the site can absorb without destroying the resource base that prompted its acquisition. Park usage is calculated by the number of visitors using the facilities and the resources of the park. The capacity of the park is reached when all the parking facilities are in use. Maximum use varies with each facility, time of day, time of week, and season. Maximum use of the state parks generally occurs on major holiday weekends; e.g., the Fourth of July, or during periods of special use; e.g., the Pork, Pine and Peanut Festival at Chippokes Plantation State Park.

The *Code of Virginia* requires a review of every state park master plan on a five-year cycle. During this review, expansion of existing facilities or development of new facilities may be recommended to meet demands. If additional demand cannot be met in the current park units, a new park may be recommended to accommodate public needs.

Site Selection Criteria:

Identification of the service area and the determination of outdoor activity and demand needs provide basic information used in selecting a park site for acquisition. In addition, potential sites should meet other basic criteria to qualify for acquisition as a state park. These criteria include:

- ◆ Six hundred (600 +) acres minimum recommended size
- ◆ Fifty miles or one-hour driving time from a major population center
- ◆ Extensive open space and/or unique natural features in the form of views, terrain, and vegetation
- ◆ Opportunities to provide compatible recreational use of the property
- ◆ Good access from major interstate and primary highways
- ◆ Willing seller acquisition
- ◆ Availability of potable water and wastewater options
- ◆ Presence of important cultural and historic features
- ◆ Water features and access opportunities are desirable
- ◆ The site must be consistent with the mission, goals, and objectives of the Department of Conservation and Recreation
- ◆ The site meets recreation needs identified in the *Virginia Outdoors Plan* for the service area and the Commonwealth.

It is recognized that in the more densely populated areas of the state, it may not be possible to meet the acreage requirement, so while it is desirable to meet the above criteria, flexibility is important as other constraints are considered in state park acquisitions.

Summary:

The objective of developing this standard is to provide a specific protocol for determining the number of acres needed in the state park system to address outdoor recreation needs and demands of Virginians and other users of the state park system. While the standard focuses on the planning district in which the park is located, it is recognized that significant resource sites will attract visitors from across the state and that the value of the resource to the entire park system must be considered.

The need for specific facilities will be determined using the supply and demand data developed for the *Virginia Outdoors Plan*. The ability of the state park system and the individual parks to meet the demand for specific facilities will be determined by the park master plan and the carrying capacity of the park to accommodate development. The resource base and the need to protect site values that make a particular park a significant state resource define carrying capacity.

The following table illustrates the need for additional state park land based on the standard of a minimum of 10 acres per 1,000 population. The table shows figures by PD; totals are for the state in its entirety. (Reference Map 1)

**RECREATION STANDARDS - SUPPLY VS. NEED COMPARISON
VIRGINIA STATE PARKS**

| <u>Planning District</u> | <u>Population</u> | <u>Acres Needed</u> | <u>Current Supply</u> | <u>Surplus/Deficiency</u> |
|--------------------------|-------------------------|----------------------|-----------------------|---------------------------|
| PD 1 | 91,019 | 910 | 1,070 | +160 |
| PD 2 | 118,279 | 1,183 | 2,022* | +839 |
| PD 3 | 190,020 | 1,900 | 8,046 | +6,146 |
| PD 4 | 165,146 | 1,651 | 583 | -1,068 |
| PD 5 | 264,541 | 2,645 | 250 | -2,395 |
| PD 6 | 258,789 | 2,588 | 4,303 | +1,715 |
| PD 7 | 185,282 | 1,853 | 1,881 | +28 |
| PD 8 | 1,815,197 | 18,152 | 2,335 | -15,817 |
| PD 9 | 134,785 | 1,348 | 1,585 | +237 |
| PD 10 | 199,648 | 1,996 | 0 | -1,996 |
| PD 11 | 228,616 | 2,286 | 1,756 | -530 |
| PD 12 | 250,195 | 2,502 | 4,570 | +2,068 |
| PD 13 | 88,154 | 882 | 3,994 | +3,112 |
| PD 14 | 97,103 | 971 | 2,617 | +1,646 |
| PD 15 | 865,941 | 8,659 | 7,625 | -1,034 |
| PD 16 | 241,044 | 2,410 | 5,783 | +3,373 |
| PD 17 | 49,353 | 493 | 2,093 | +1,600 |
| PD 18 | 83,684 | 837 | 0 | -837 |
| PD 19 | 167,129 | 1,671 | 1,683 | +12 |
| PD 22 | 51,398 | 514 | 540 | +26 |
| PD 23 | <u>1,533,192</u> | <u>15,332</u> | <u>9,714</u> | <u>-5,618</u> |
| TOTAL | 7,078,515 | 70,783 | 62,450 | - 8,333 |

* Breaks Interstate Park - Virginia Acreage Only

VIRGINIA OUTDOORS SURVEY
RANKING OF ACTIVITIES

The following statistics are from the draft 2001 *Virginia Outdoors Plan*

| <u>Rank</u> | <u>Activity</u> | <u>Statewide %</u> |
|--------------------|------------------------------|---------------------------|
| 1 | Walking for Pleasure | 67.1 |
| 2 | Driving for Pleasure | 62.4 |
| 3 | Swimming | 52.2 |
| 4 | Fishing | 42.0 |
| 5 | Visiting Historic Sites | 40.4 |
| 6 | Bicycling | 39.7 |
| 7 | Sunbathing | 39.1 |
| 8 | Boating | 34.1 |
| 9 | Picnicking | 28.7 |
| 10 | Camping | 28.2 |
| 11 | Visiting Natural Areas | 26.9 |
| 12 | Golfing | 25.1 |
| 13 | Using Playgrounds | 24.4 |
| 14 | Visiting Gardens | 21.6 |
| 15 | Jogging/Running | 21.5 |
| 16 | Hiking/Backpacking | 18.3 |
| 17 | Tennis | 16.2 |
| 18 | Playing Basketball | 15.4 |
| 19 | Hunting | 13.8 |
| 20 | Shooting | 13.4 |
| 21 | Snow Ski/Snowboard | 11.9 |
| 22 | In-Line Skating | 11.2 |
| 23 | Nature Study/Program | 11.1 |
| 24 | Playing Softball | 10.1 |
| 25 | Playing Soccer | 8.7 |
| 26 | 4-Wheel Drive Off Road | 7.6 |
| 27 | Using Fitness Trails | 7.3 |
| 28 | Playing Football | 7.0 |
| 29 | Waterskiing/Towing | 6.7 |
| 30 | Jet Ski/Personal Water Craft | 6.5 |
| 31 | Playing Baseball | 6.2 |
| 32 | Horseback Riding | 6.2 |
| 33 | Playing Volleyball | 6.1 |
| 34 | Tubing | 6.1 |
| 35 | Skateboarding | 4.1 |
| 36 | Rafting | 3.7 |
| 37 | Driving All-Terrain Vehicle | 2.4 |
| 38 | Motorcycling Off-Road | 1.2 |
| 39 | Other Activities | 2.8 |

Report Findings

General:

The *Virginia Outdoors Plan* is the basic planning guide for establishing and planning outdoor recreation areas and facilities. A chapter in the plan outlines general standards to be considered for state recreation areas. These are relevant and useful to the agencies and providers of such facilities. The area standards represent a minimum acreage, which should be exceeded when possible.

In the conduct of this study it was learned that most states no longer use a basic numerical standard for acquiring park and open space lands. Currently, most agencies use a resource directed standard, which results in acquiring and developing lands with unique qualities and not just acreage. This adds diversity to the park system and permits acquisition of lands to meet specific public needs.

The *Virginia Outdoors Plan* standards for facility and capacity are used to determine: 1) the amount of land or water necessary to accommodate a particular activity within a complex, and 2) the number of people who be accommodated during the average day, week, or season. These standards provide information that can be used to determine the acreage needed to meet specific public demands.

Conclusion

The area and facilities standards defined in the *Virginia Outdoors Plan* are adequate to plan and implement a comprehensive acquisition and development program for the Virginia State Park System. The criteria for acquisition further refine and direct acquisition of property that can meet a specific recreation demand or resource need.

Out of the twenty-one planning (or recreation) districts in the Commonwealth, eight districts are deficient in state park lands. Two of these districts are located in southwest Virginia. They are: PDs 4 and 5. Two are located in the Piedmont: PDs 10 and 11. One district is in the middle peninsula: PD 18. Three planning districts are in urban areas: PD 8 is the Northern Virginia Planning District located next to Washington D. C.; PD 15 represents the localities around Richmond; and PD 23 is located in Hampton Roads, Norfolk/Virginia Beach. (See Map 1)

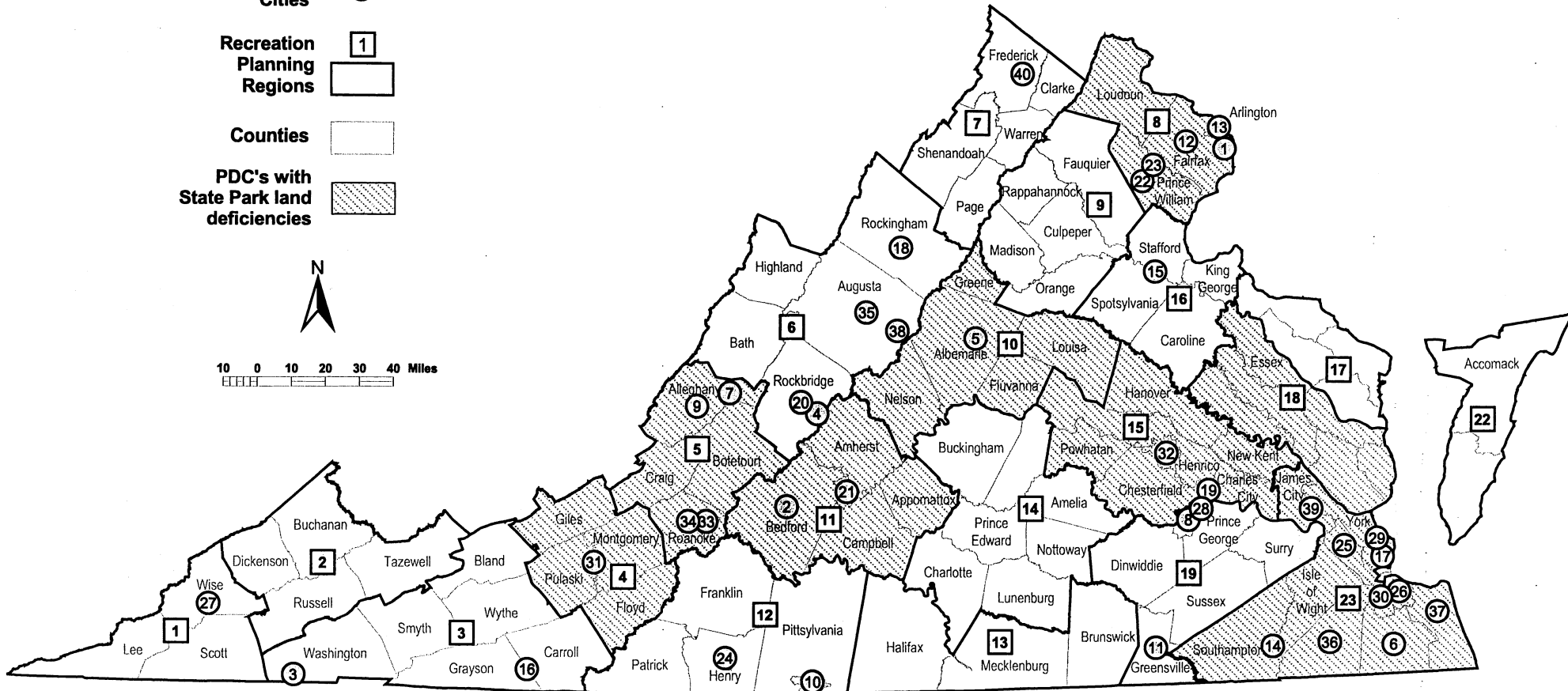
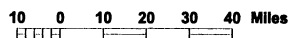
In addition to state parks, the Department of Conservation and Recreation owns and manages over 24,508 acres of natural areas or natural area preserves. These are not included in the total acreage available for recreation because of the limited types of facilities that can be placed on the sites and the many and strict management constraints that include limiting and, in some instances, prohibiting public access.

Based on the above analysis, there is a statewide deficiency of over 8,333 acres of lands for state parks. The priorities for acquisition of future state parks are defined in the *Virginia Outdoors Plan* and will be revised and published in the 2001 edition of that document. (See Map 2)

It should be noted that current standards do not include acreage requirements for unique open space resources, such as wetlands, forestlands, agricultural lands, and lands to define and shape growth. These lands are defined in the *Code of Virginia* in §58.1-3229 and in regulations published by the Department of Conservation and Recreation. There are no specific acreage requirements for these specialized properties. State agencies and local governments, through their planning processes, will continue to identify important resource lands in those categories that need protection.

Planning Districts - Recreational Planning Regions

- Independent Cities
- Recreation Planning Regions
- Counties
- PDC's with State Park land deficiencies



Independent Cities

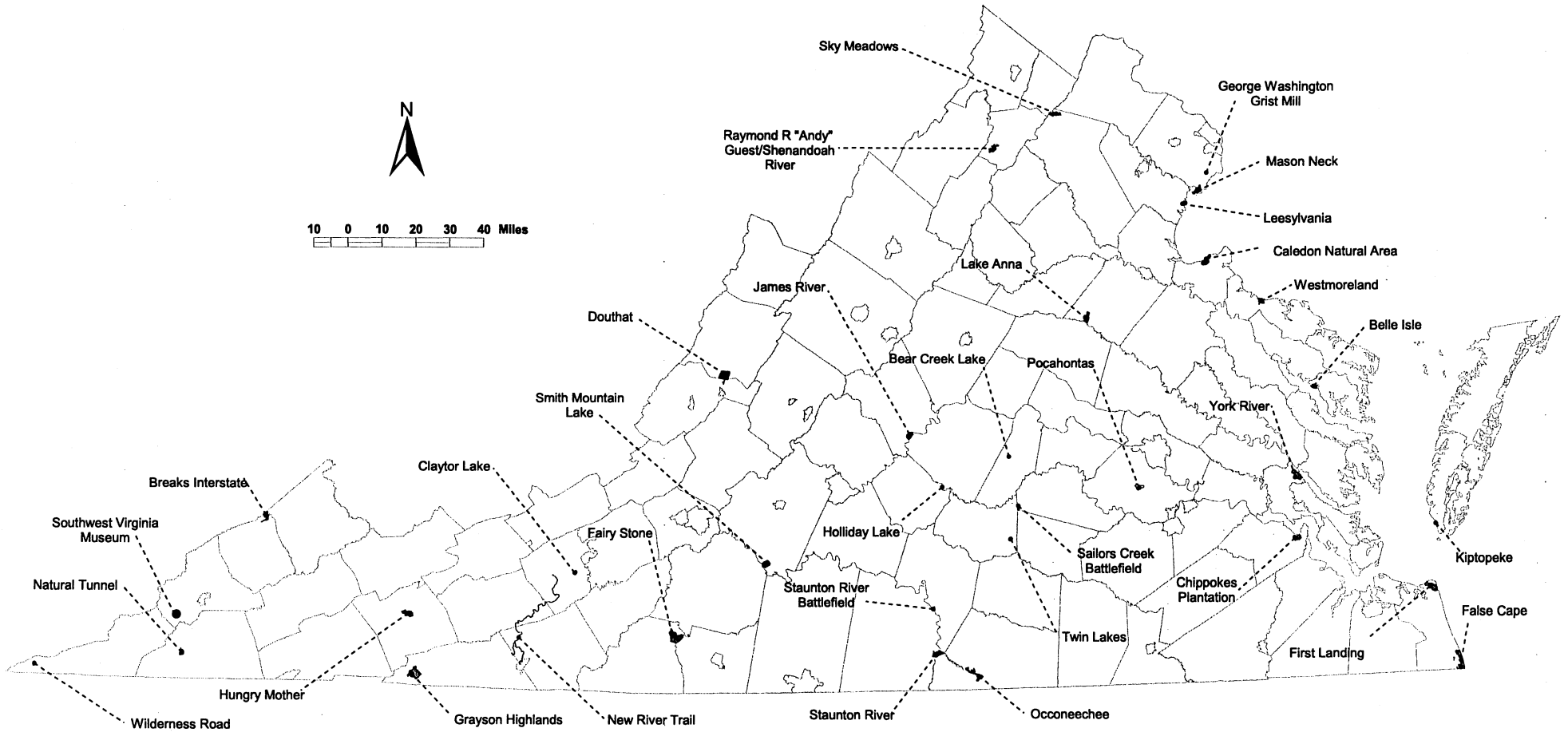
- | | | |
|---------------------|-------------------|--------------------|
| 1. Alexandria | 16. Galax | 31. Radford |
| 2. Bedford | 17. Hampton | 32. Richmond |
| 3. Bristol | 18. Harrisonburg | 33. Roanoke |
| 4. Buena Vista | 19. Hopewell | 34. Salem |
| 5. Charlottesville | 20. Lexington | 35. Staunton |
| 6. Chesapeake | 21. Lynchburg | 36. Suffolk |
| 7. Clifton Forge | 22. Manassas | 37. Virginia Beach |
| 8. Colonial Heights | 23. Manassas Park | 38. Waynesboro |
| 9. Covington | 24. Martinsville | 39. Williamsburg |
| 10. Danville | 25. Newport News | 40. Winchester |
| 11. Emporia | 26. Norfolk | |
| 12. Fairfax | 27. Norton | |
| 13. Falls Church | 28. Petersburg | |
| 14. Franklin | 29. Poquoson | |
| 15. Fredericksburg | 30. Portsmouth | |

Planning Districts - Recreation Planning Regions

- | | |
|-------------------------|-------------------------|
| 1. LENOWISCO | 16. RADCO |
| 2. Cumberland Plateau | 17. Northern Neck |
| 3. Mount Rogers | 18. Middle Peninsula |
| 4. New River Valley | 19. Crater |
| 5. Fifth | 22. Accomac-Northampton |
| 6. Central Shenandoah | 23. Hampton Roads |
| 7. Lord Fairfax | |
| 8. Northern Virginia | |
| 9. Rappahannock-Rapidan | |
| 10. Thomas Jefferson | |
| 11. Central Virginia | |
| 12. West Piedmont | |
| 13. Southside | |
| 14. Piedmont | |
| 15. Richmond Regional | |

State Parks

Map 2



VIRGINIA ACTS OF ASSEMBLY -- 1998 RECONVENED SESSION

REENROLLED

Attachment A

CHAPTER 780

An Act to amend and reenact §§ 10.1-107 and 10.1-200 of the Code of Virginia and to amend the Code of Virginia by adding a section numbered 10.1-200.1, relating to state park planning.

[S 290]

Approved April 22, 1998

Be it enacted by the General Assembly of Virginia:

1. That §§ 10.1-107 and 10.1-200 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding a section numbered 10.1-200.1 as follows:

§ 10.1-107. General powers and duties of the Board.

A. The Board shall advise the Governor and the Director on activities of the Department. Upon the request of the Governor, or the Director, the Board shall institute investigations and make recommendations.

The Board shall formulate recommendations to the Director concerning:

1. Requests for grants or loans pertaining to outdoor recreation.
2. Designation of recreational and historical sites eligible for recreational access road funds.
3. Designations proposed for scenic rivers, scenic highways, and Virginia byways.
4. Acquisition of real property by fee simple or other interests in property for the Department including, but not limited to, state parks, state recreational areas, state trails, greenways, natural areas and natural area preserves, and other lands of biological, environmental, historical, recreational or scientific interest.

5. Acquisition of bequests, devises and gifts of real and personal property, and the interest and income derived therefrom.

6. *Stage one and stage two plans, master plans, and substantial acquisition or improvement amendments to master plans as provided in § 10.1-200.1.*

B. The Board shall have the authority to promulgate regulations necessary for the execution of the Virginia Stormwater Management Act, Article 1.1 (§ 10.1-603.1 et seq.) of Chapter 6 of this title.

§ 10.1-200. Duties related to parks and outdoor recreation; additional powers.

To facilitate and encourage the public use of parks and recreational areas, *to further take advantage of the positive economic impact of outdoor recreational facilities to localities and the Commonwealth, to foster the upkeep and maintenance of such resources, and to provide additional means by which the Governor and the General Assembly may determine necessary general fund appropriations and the need for other funding measures*, the Department shall establish and implement a long-range plan for acquisition, maintenance, improvement, protection and conservation for public use of those areas of the Commonwealth best adapted to the development of a comprehensive system of outdoor recreational facilities in all fields, including, but not limited to: parks, forests, camping grounds, fishing and hunting grounds, scenic areas, waters and highways, boat landings, beaches and other areas of public access to navigable waters. The Department shall have the power and duty to:

1. Administer all funds available to the Department for carrying out the purposes of this chapter, and to disburse funds to any department, commission, board, agency, officer or institution of the Commonwealth, or any political subdivision thereof or any park authority.

2. Study and appraise on a continuing basis the outdoor recreational needs of the Commonwealth; assemble and disseminate information on outdoor recreation; and prepare, maintain and keep up-to-date a comprehensive plan for the development of outdoor recreational facilities of the Commonwealth.

3. Establish and promote standards for outdoor recreational facilities; encourage and assist in the coordination of federal, state, and local recreational planning; aid and advise various state institutions in the use of existing state parks and similar recreational facilities; work with the appropriate state agencies to develop areas for multiple recreational use, including, but not limited to, traditional uses such as hunting, fishing, hiking, swimming, and boating.

4. Study and develop plans and, upon request, provide assistance regarding the establishment and

implementation of recreational programs for state institutions, agencies, commissions, boards, officers, political subdivisions, and park authorities.

5. Assist upon request any department, commission, board, agency, officer or institution of the Commonwealth or any political subdivision thereof or any park authority in planning outdoor recreational facilities in conformity with its respective powers and duties and encourage and assist in the coordination of federal, state and local recreational planning.

6. Apply to any appropriate agency or officer of the United States for participation in or receipt of aid from any federal program respecting outdoor recreation, and in respect thereto, enter into contracts and agreements with the United States or any appropriate agency thereof; keep financial and other records relating to contracts and agreements with the United States or any appropriate agency thereof, and furnish appropriate officials and agencies of the United States reports and information necessary to enable the officials and agencies to perform their duties under federal programs respecting outdoor recreation.

7. Act either independently or jointly with any department, commission, board, agency, officer or institution of the Commonwealth or any political subdivision thereof or any park authority to carry out the Department's powers and duties; and coordinate its activities with and represent the interests of the above entities having interests in the planning, maintenance, improvement, protection and conservation of outdoor recreation facilities.

8. *Develop a standard against which the public can determine the extent to which the Commonwealth is meeting park and recreational needs. The standard shall be based on park usage, population trends and densities, and outdoor recreational facility demands. The standard shall be expressed in terms of acres and facilities needed on a regional and a statewide level to serve existing and projected needs and conservation goals. The standard shall be developed by July 1, 1999. The Department shall annually report by November 1 of each year to the Governor and the General Assembly on (i) the development of the standard; (ii) where the Commonwealth's park system falls short of, meets or exceeds the standard; and (iii) the methodology used for determining clause (ii).*

§ 10.1-200.1. State park master planning.

A. The Department shall undertake a master planning process (i) for all existing state parks, (ii) following the substantial acquisition of land for a new state park, and (iii) prior to undertaking substantial improvements to state parks. A master plan shall be considered a guide for the development, utilization and management of a park and its natural, cultural and historic resources and shall be adhered to closely. Each plan shall be developed in stages allowing for public input.

Stage one of the plan shall include the development of a characterization map indicating, at a minimum, boundaries, inholdings, adjacent property holdings, and other features such as slopes, water resources, soil conditions and types, natural resources, and cultural and historic resources. The stage one plan shall include a characterization of the potential types of uses for different portions of the parks and shall provide a narrative description of the natural, physical, cultural and historic attributes of the park. The stage one plan shall include the specific purposes for the park and goals and objectives to support those purposes.

Upon completion of a stage one plan, a stage two plan shall be developed by the Department which shall include the potential size, types and locations of facilities and the associated infrastructure including roads and utilities, as applicable. Proposed development of any type shall be in keeping with the character of existing improvements, if appropriate, and the natural, cultural and historic heritage and attributes of the park. The stage two plan shall include a proposed plan for phased development of the potential facilities and infrastructure. The Department shall project the development costs and the operational, maintenance, staffing and financial needs necessary for each of the various phases of park development. Projections shall also be made for the park's resource management needs and related costs. The projections shall be made part of the stage two plan.

Upon completion of the stage two plan, the stage one and stage two plans along with supporting documents shall be combined to form a master plan for the park. Development of a park shall not begin until the master plan has been reviewed by the Board and adopted by the Director.

B. All members of the General Assembly shall be given notice of public meetings and, prior to their adoption, the availability for review of stage one, stage two and master plans and proposed amendments for substantial improvements.

C. The master planning process shall not be considered an impediment to the acquisition of inholdings or adjacent properties. Such properties, when acquired, shall be incorporated into the master plan and their uses shall be amended into the master plan.

D. Stage one and stage two plans shall be considered complete following review and adoption by the Director. Stage one and stage two plans may only be adopted by the Director following public notice and a public meeting. The Director may make nonsubstantial amendments to master plans following public notice. A master plan or a substantial amendment to a master plan may only be adopted by the Director after considering the recommendations of the Board following public notice and a public meeting.

E. The Department shall solicit and consider public comment in the development of the stage one and two plans as well as the master plan and any amendments thereto.

F. Master plans shall be reviewed and updated by the Department and the Board no less frequently than once every five years and shall be referenced in the Virginia Outdoors Plan.

G. Materials, documents and public testimony and input produced or taken for purposes of park planning prior to January 1, 1999, may be utilized in lieu of the process established in this section provided that it conforms with the requirements of this section and that a master plan shall be developed that conforms with this section which shall not be deemed complete until reviewed and approved in accordance with subsection D.

H. The planning process contained in this section satisfies the Department of General Services' master planning requirements for lands owned or managed by the Department of Conservation and Recreation. The Department of Conservation and Recreation's Facility Development Plans shall continue to meet the Department of General Services' requirements.

I. For purposes of this section, unless the context requires a different meaning:

"Development of a park" means any substantial physical alterations within the park boundaries other than those necessary for the repair or maintenance of existing resources or necessary for the development of the master plan.

"Substantial acquisition" means the purchase of land valued at \$500,000 or more or the acquisition of the major portion of land for a new state park whichever is less.

"Substantial improvement" means physical improvements and structures valued at \$500,000 or more.

**Virginia Department of Conservation and Recreation
Existing and Projected Needs
Statewide**

| ACTIVITY | ACTIVITY DAYS | DEMAND | UNITS | SUPPLY | 2000 NEEDS | 2010 DEMAND | 2010 NEEDS |
|---------------------------------|---------------|---------|--------------|-----------|------------|-------------|------------|
| Baseball | 12,466,080 | 2,464 | fields | 1,828 | 2,082 | 2,695 | 2,313 |
| Basketball | 31,234,301 | 7,408 | goals | 3,027 | 4,381 | 8,135 | 5,108 |
| Bicycling | 67,133,477 | 4,777 | miles | NI | | 5,247 | |
| Lake, River, Bay Use (combined) | 38,736,080 | 507,854 | water acres | 1,302,491 | -794,637 | 553,502 | -748,989 |
| Power Boating | 11,199,042 | 269,926 | water acres | S | | 294,328 | |
| Sailing | 2,253,110 | 19,498 | water acres | S | | 20,975 | |
| Lake Fishing | 12,240,857 | 68,855 | water acres | S | | 74,494 | |
| Salt Water Fishing | 8,536,764 | 48,019 | water acres | S | | 52,833 | |
| Jet Ski/ Personal Watercraft | 2,530,308 | 39,641 | water acres | S | | 43,309 | |
| Water Skiing / Towed on Water | 1,975,998 | 61,915 | water acres | S | | 67,562 | |
| Camping (*) | 12,775,279 | 75,341 | sites | 51,257 | 24,084 | 82,188 | 30,931 |
| Tent camping | 4,187,630 | 24,696 | sites | 8,942 | 15,754 | 27,025 | 18,083 |
| Developed camping | 8,587,649 | 50,645 | sites | 42,315 | 8,330 | 55,163 | 12,848 |
| Fitness Trail use | 4,852,462 | 389 | mile trails | 422 | -33 | 430 | 8 |
| Fields (combined) | 38,644,615 | 8,124 | fields | 2,185 | 5,939 | 8,953 | 6,768 |
| Football | 21,158,134 | 4,448 | fields | NS | | 4,907 | |
| Soccer | 17,486,481 | 3,676 | fields | NS | | 4,047 | |
| Stream Use (combined) | 15,743,642 | 9,006 | stream miles | 3,175 | 5,831 | 9,753 | 6,578 |
| Stream Fishing | 11,481,493 | 8,073 | stream miles | S | | 8,736 | |
| Human-powered boating | 2,827,129 | 720 | stream miles | S | | 784 | |
| Rafting | 568,456 | 100 | stream miles | S | | 109 | |
| Tubing | 866,564 | 113 | stream miles | S | | 124 | |
| Golfing | 22,865,370 | 765 | courses | 302 | 464 | 837 | 536 |
| Hiking/ Backpacking | 8,909,287 | 4,569 | trail miles | 5,363 | -794 | 4,967 | -396 |
| Horseback Riding | 1,833,529 | 793 | miles | 2,103 | -1,310 | 861 | -1,242 |
| In-Line Skating | 14,219,037 | 1,012 | miles | NI | | 1,119 | |
| Jogging/Running | 88,143,668 | 7,063 | mile trails | NI | | 7,776 | |

S - same as combined NS - not inventoried seperately NI - not inventoried (-) - indicates surplus

* - 79.6 % of 2000 Virginia Outdoor Survey respondents preferred developed campsites

20.4 % of 2000 Virginia Outdoor Survey respondents preferred primitive campsites

Note: Demand multipliers used to create this chart are based on the findings of the Virginia Outdoors Survey as measured at the regional level. In regions with significant contrasts in population density and demographics, need results may show surpluses where none exist, especially in sparsely populated counties. Additional analysis will be required to adjust these results to local conditions.

**Existing and Projected Needs
Statewide - Continued**

| ACTIVITY | ACTIVITY DAYS | DEMAND | UNITS | SUPPLY | 2000 NEEDS | 2010 DEMAND | 2010 NEEDS |
|--------------------------------|---------------|-----------|-------------|-----------|------------|-------------|------------|
| Nature Study/ Programs | 3,130,303 | 445 | sites | 67 | 378 | 489 | 422 |
| Picnicking Away from Home | 9,682,208 | 25,137 | tables | 33,035 | -7,898 | 27,462 | -5,573 |
| Skateboarding | 4,897,560 | 1,507 | sites | NI | | 1,665 | |
| Snow Skiing or Snowboarding | 3,090,031 | 79 | ski lifts | 22 | 57 | 87 | 65 |
| Softball | 14,523,040 | 2,583 | fields | 1,871 | 712 | 2,833 | 962 |
| Sunbathing/ Relaxing on Beach | 25,564,746 | 1,832 | beach acres | 2,047 | -215 | 2,013 | -34 |
| Swimming Outdoor Area | 19,014,841 | 1,947 | beach acres | 2,047 | -100 | 2,141 | 94 |
| Swimming Outdoor pools | 22,355,220 | 946 | pools | 747 | 199 | 1,039 | 292 |
| Swimming Indoor pools | 13,477,237 | 154 | pools | 64 | 90 | 169 | 105 |
| Tennis | 13,009,606 | 8,131 | courts | 3,914 | 4,217 | 8,944 | 5,030 |
| Used a Playground | 38,084,653 | 5,420 | sites | 2,666 | 2,754 | 5,962 | 3,296 |
| Visiting Gardens | 3,048,908 | 335 | sites | NI | | 369 | |
| Visiting Historic Sites | 13,141,685 | 1,112 | sites | NI | | 1,223 | |
| Visiting Natural Areas | 7,799,637 | 1,320 | sites | NI | | 1,444 | |
| Volleyball | 3,090,000 | 916 | courts | 144 | 772 | 1,002 | 858 |
| Went Hunting | 10,232,450 | 1,678,012 | acres | 2,142,241 | -464,229 | 1,815,697 | -326,544 |
| Went Shooting Total | 6,005,147 | 3,392 | fields | NI | | 3,665 | |
| Target | 4,041,035 | 2,283 | fields | NI | | 2,484 | |
| Skeet or Trap | 1,574,402 | 889 | fields | 39 | 850 | 965 | 926 |
| Other | 838,768 | 474 | fields | NI | | 513 | |
| Drive for Pleasure | 54,482,683 | na | na | NI | | na | |
| Motorcycle/ATV (combined) | 4,908,532 | 2,242 | miles | 228 | 2,014 | 2,415 | 2,187 |
| Driving All-Terrain Vehicle | 3,577,252 | 1,634 | miles | NS | | 1,759 | |
| Driving Motorcycle Off Road | 1,331,281 | 608 | miles | NS | | 656 | |
| Driving 4-Wheel-Drive Off Road | 3,565,865 | na | na | NI | | na | |
| Walking for Pleasure | 224,976,112 | na | na | NI | | na | |
| Other | 3,537,520 | na | na | NI | | na | |

S - same as combined NS - not inventoried separately NI - not inventoried (-) - indicates surplus

