



CHAPTER **3**

*Outdoor  
Recreation  
Trends*



A brisk dash on a woodland trail, Pocahontas State Park | Bill Crabtree, Jr./ Virginia Tourism Corp.

### Assessing Recreation Trends

Virginia's outdoor recreation trends are assessed by evaluating recreation resources, citizen survey results and tourism opportunities. Statewide meetings held in preparation for this plan identify statewide outdoor recreation trends. Emerging outdoor recreation topics identified in this plan include:

- Volunteerism, partnerships and landowner liability
- Government's role in land management, public recreation and conservation lands
- Use of technology in outdoor recreation
- Carrying capacity
- Mapping
- Climate change and sea level rise

### Volunteerism, Partnerships and Landowner Liability

As volunteerism and partnerships for outdoor recreation and land conservation increase across the Commonwealth, so does the importance of the protections established in §29.1-509 of the Code of Virginia. This law protects private landowners from liability when private lands are open to the public. Protection encourages property owners to continue to open lands for outdoor recreation. As long as landowners do not charge a fee for access, and there is no gross negligence or "willful or malicious failure to guard or warn against a dangerous condition, use or structure" on the property, they are protected from liability due to injury or death when they provide public recreation access. The law also limits the liability of landowners who enter into a lease agreement with state agencies.

### Government Role in Land Management, Public Recreation and Conservation Lands

During the annual Virginia Outdoors Plan (VOP) Technical Advisory Committee meeting on April 19, 2016, a subgroup provided input on government's role in land management and ownership of public recreation and conservation lands. This group advocates that outdoor recreation and natural resource management and protection are core functions of government. The 2017 Virginia Outdoors Demand Survey (VODS) indicates a high demand for publicly owned outdoor recreation lands. Continued education and steps to support governmental land management and ownership of public lands are key to implementing the recommendations in this plan.

Benefits of governmental land management and ownership of public lands include:

- Providing access for all people.
- Protecting conserved lands and parks over time.
- Developing partnerships between governmental agencies and supporting organizations.
- Establishing a protected, land-based legacy.
- Promoting resource-based protection that is not profit motivated.

### Recommendations

- Through regional meetings, the Virginia Department of Conservation and Recreation will provide annual updates to planning districts on recreational trends.
- Planning regions will educate elected officials about the benefits of Virginia's public lands and advocate for local and regional land management and operations.



A relaxing canoe trip at Pocahontas State Park | Virginia Department of Conservation and Recreation

### Technology and Recreation

Smart phone	81.50%
Internet	42.20%
Google Earth	38.40%
Social Media	34.90%
GPS tracking	30.70%
Remote cameras	15.10%
Other	7.60%
Camcorder	5.70%
Personal locator beacon	0.90%

Source: 2017 Virginia Outdoors Demand Survey

### Use of Technology in Outdoor Recreation

Technology increasingly defines outdoor experiences. Local, regional, state and national outdoor recreation providers rely on technology for better park management and improved visitor experiences. Recreationists are capturing and sharing their experiences through social media and other online outlets. Wayfinding and outdoor education orient outdoor recreation users, maximizing outdoor leisure time. As generations become more reliant on technology, there is a need for technology to be seamlessly integrated into outdoor recreation experiences.

According to the 2017 VODS, over three-quarters of respondents (81.5 percent) used a smartphone during outdoor recreation activities. This is an increase from the 27.3 percent reporting smartphone use in the 2011 survey. Less than half (42.3 percent) used the Internet in connection with their outdoor recreation activities. About a third used some form of digital mapping (38.4 percent), social media (34.9 percent) or GPS (30.7 percent). A little over one in seven (15.1 percent) respondents used remote cameras (a weatherproof camera designed for extended and unmanned outdoors use to record images). Fewer than one in 10 used some other form of technology (7.6 percent) or a camcorder (5.7 percent) in connection with their outdoor activities.

Virginians living in the urban corridor reported a slightly higher use of technologies. However, GPS tracking was frequently used in the Chesapeake region, and remote camera use was reported in the Mountain and Piedmont regions (see Survey Appendix 2).

Urban respondents were generally more likely to use technologies during outdoor recreation compared to rural respondents, as were households with children (see Survey Appendix 2).

### Carrying Capacity

Recreation experiences are increasingly related to how park carrying capacity is managed. Determining park carrying capacity is an integral part of the site design process and a precursor to park management and programming. By addressing carrying capacity before the user experience or the parkland is impacted, park degradation and some maintenance issues may be avoided.

While just under 10 percent of those surveyed in the 2017 VODS had been turned away from a Virginia State Park due to overcrowding, overcrowding concerns are growing among park management and park users. To assess the concerns of both local and state park and natural resource managers, an informal survey administered in October 2017 was completed by 69 local professionals in Virginia State Parks and local parks and recreation management. The survey can be found under Appendix B.

The following summarizes key points from the survey with regard to park carrying capacity issues.

- Approximately 30 percent of respondents experience some carrying capacity issues in their parks.
- During 2016 and 2017, 36 percent of respondents had to restrict use or close a park during the summer.
- Park managers identify carrying capacity by evaluating available parking, safety and overuse conflicts and damage to natural resources.
- Most park closures or restricted park use occurred in the summer, on holidays or during special events, or were due to construction or maintenance.
- Over 75 percent of park managers responded that an area of the park or parking facilities were closed when a park reached carrying capacity.
- Thirteen percent of park managers reported the need to close the park.

- Most often, carrying capacity concerns impact water-related outdoor recreation.
- Approximately 25 percent of the park managers reported natural resources were compromised by park carrying capacity issues.
- Approximately 32 percent of park managers experiencing carrying capacity issues felt the visitor experience was compromised.
- Twenty-two percent of respondents said their park resources were being used differently than originally planned. These included the need to accommodate large families and groups in the park for extended day use.
- User conflicts were mentioned by 18 percent of park managers.

Source: Virginia Department of Conservation and Recreation, "Carrying Capacity Survey Summary," October 2017

### Recommendations:

In order of priority, the following recommendations were made by park managers completing the October 2017 carrying capacity survey.

- DCR and the Virginia Recreation and Park Society (VRPS) should convene a conference, a session at a VRPS conference or a webinar on park carrying capacity.
- DCR should pursue additional park carrying capacity studies in Virginia State Parks.
- VRPS should publish an article about carrying capacity in one of its publications.

### Two Types of Carrying Capacity

- Physical carrying capacity related to sustainable park use correlates directly with park planning and maintenance guidelines.
- Social carrying capacity refers to user expectations for a desired type and quality outdoor recreation experience.

## Mapping

There are a few statewide mapping tools that interface directly with outdoor recreation and land conservation. The VOP Mapper shows resources for developing feasibility studies and environmental documents for outdoor recreation and land conservation projects. The Conservation Lands Database provides mapped data and information on all protected lands in Virginia via a web-based mapping tool. The Coastal Geospatial and Educational Mapping System (GEMS) is a mapping tool focused on resources for planning and monitoring coastal communities. The National Recreation and

Parks Association's Park Metrics tool may in the future integrate parks data and support local parks and recreation departments.

### Mapping recommendations

- DCR should complete local park recreational data in the VOP Mapper through an internship with a student familiar with GIS.
- DCR should develop a Virginia recreation needs assessment using a geographic platform that integrates results of the VODS and data from the 2017 inventory of outdoor recreation. Potential partners may include the Virginia Department of Health and Virginia Tourism Corp.

## Climate Change and Sea Level Rise

Climate change is affecting all of Virginia. Some of the predicted impacts of climate change on outdoor recreation include:

- More frequent and extreme weather events and storms that threaten and destroy facilities and natural shorelines.
- Rising temperatures and increased drought stress resources and, as a result, outdoor recreation.
- A change in species diversity to favor increased invasive varieties of plants and animals.
- An increase in sea level rise.<sup>1</sup>

Relative sea level rise is a direct result of climate change and land subsidence. Virginia's Coastal Zone Management Program reports that while 29 percent of Virginia's land area lies within the coastal zone, over 60 percent of Virginia's population lives there. The Virginia Institute of Marine Science (VIMS) Center for Coastal Resources Management publishes sea level rise planning maps for Virginia. This clearinghouse provides a number of guidance tools for localities. This information and guidance should be considered when developing outdoor recreation throughout coastal Virginia.

### Recommendations

- Local, state and federal parks and recreation providers should consider climate change when developing parks facilities.
- Local, state and federal parks and recreation providers should research and plan for sea level rise as reported by VIMS in the coastal planning districts.
- Land conservation planners should identify climate as well as non-climate stressors and evaluate their impact on conservation targets. NOAA's Guide for Considering Climate Change in Coastal Conservation is a good resource for planning in the face of climate change.



Completing the Muddy Buddy course at Pocahontas State Park | Virginia Department of Conservation and Recreation

### Resources

- Virginia Institute of Marine Science, Sea Level Rise Planning Maps
- McAuliffe Administration Report on Climate Change
- National Recreation and Parks Association, Resources for Climate Resilient Parks
- The Nature Conservancy's Resilient and Connected Landscapes project comprehensively maps resilient lands and significant climate corridors across Eastern North America. <http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/terrestrial/resilience/Pages/default.aspx>
- Interagency Visitor Use Management Council, *Visitor use Management on Public Lands and Waters*, March 2013. <http://npshistory.com/publications/social-science/vum-position-paper-03-2013.pdf>
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### Works Cited

1. Rich Dolesh, "Climate Change, Parks and Health", *National Recreation and Parks Magazine*, June 1, 2017.