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NEWS & ANALYSIS

Public Lands for the Public's Health

by Richard A. Goodman and Marc L. Miller

Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wilderness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers but as fountains of life.

—John Muir (1898)¹

A walk in the park is one of our finest cultural opportunities, a value that people expect to find available in their community.

—National Association of State Park Directors²

Cardiovascular diseases, epidemic obesity, and other major public health problems in the United States are strongly associated with physical inactivity and other lifestyle-related risk factors. With the increasing prevalence of obesity, and with physical inactivity high on the list of risk factors for obesity, cardiovascular diseases, diabetes, and a multitude of major health problems,³ clinical and public

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Glenn Alexander—Executive Director, National Association of State Park Directors;

Jennifer Blattman—Division of Public Policy, National Recreation and Park Association;

Ross Brownson—Professor, St. Louis University School of Public Health;

David Buchner—Epidemiologist, Division of Nutrition and Physical Activity, CDC;

Chuck Gregory—Director of Volunteer Services, Parks, Recreation, and Historic Sites Division, Georgia Department of Natural Resources;

Tom Martin—Executive Director, Georgia Recreation and Park Association;

Ed McBrayer—Executive Director, PATH Foundation;

Dan McClean—Associate Professor, Department of Recreation and Park Administration, Indiana University;

Vicki Pilgrim—Public Health Program Consultant, Georgia Department of Human Resources;

Tom Schmid—Epidemiologist, Division of Nutrition and Physical Activity, CDC;

Kathy Spangler—Director of National Programs, National Recreation and Park Association;

John Walden—Legal Executive Assistant, Georgia Department of Natural Resources;

Burt Weerts—Director, Georgia State Parks and Historic Sites, Georgia Department of Natural Resources; and

Harvey Young—Coordinator of Georgia Greenspace Program, Office of Commissioner, Department of Natural Resources.

1. John Muir, *John Muir Exhibit, Our National Parks* ch. 1, ¶ 1, at http://www.sierraclub.org/john_muir_exhibit/writings/our_national_parks/chapter_1.html (last visited Jan. 6, 2003).
2. The National Association of State Park Directors (NASPD), *Values and Benefits of State Parks* ch. 1, at <http://www.indiana.edu/~naspd/values/personalvalues.html> (last visited Jan. 6, 2003).
3. Caroline A. Macera & Michael Pratt, *Public Health Surveillance of Physical Activity*, 71 RES. Q. FOR EXERCISE & SPORT 97, 97-103

health experts have emphasized the critical importance of increasing levels of physical activity.⁴ While efforts to increase leisure-time physical activity have emphasized activities centered around the home and neighborhood, improving public health through increased physical activity may require additional, innovative approaches. Local and state governments and nongovernmental organizations (NGOs) should consider new strategies and programs to encourage physical activity.

The systems of public parks operated by state governments throughout the United States are a potential public health resource for increasing levels of physical activity. Local and state governments could employ the roughly 8.5 million acres of state parks to promote healthy, risk-reducing activities that would help to improve public health.

Surprisingly, health advocates and park administrators only recently have begun to consider the role that public parks might play in public health. The previous lack of recognition may reflect traditional administrative divisions and institutional barriers: the government agencies that manage state parks typically have little interaction with the government agencies that service human health, and neither sector typically links public lands with the public's health. State park public relations materials sometimes mention recreation and, occasionally, fitness, but they do not connect recreation to health. The public attitude is similar: people perceive parks as places for nature conservation and public recreation, but they have not necessarily made the connection between recreation and health.⁵

This Article focuses on the state of Georgia to examine the role state parks could play in public health. While a single state cannot serve as a universal model, it can provide a concrete focus for analysis, and may provide deeper insights than more general or abstract studies.⁶

(Supp. 2000); Ali H. Mokdad et al., *The Spread of the Obesity Epidemic in the United States, 1991-1998*, 282 J. AM. MED. ASS'N 1519, 1519-22 (1999); Ali H. Mokdad et al., *The Continuing Epidemic of Obesity in the United States*, 284 J. AM. MED. ASS'N 1650 (2000).

4. Russel Pate et al., *Physical Activity and Public Health: A Recommendation From the Centers for Disease Control and Prevention and American College of Sports Medicine*, 273 J. AM. MED. ASS'N 402 (1995).
5. Citizens may have reservations about the role of government in trying to shape individual behavior, but cooperation between health officials and park officials need not entail exercise mandates. Rather, the method of such cooperation could be to draw on citizens' current desire to exercise. While health officials and the media promote awareness of heart disease and obesity, park officials can promote parks as places to engage in cardiovascular exercise.
6. Looking at the state level, and at questions of policy and practice, and not just vanilla legal authority, requires reliance on some nontraditional sources. The analysis in this Article relies heavily on government and nonprofit organizations and staff. In-person or telephone interviews were conducted with professional staff at the Georgia Department of Natural Resources (DNR), the Georgia Department

Georgia operates 70,000 acres of state parks that are visited annually by some 15 million people, but the Georgia Department of Natural Resources (DNR), which manages the state's parks and holds broad policymaking authority to promote the general welfare of the people of the state, has not generally recognized the opportunities to improve public health.

The Article begins with a very short summary of well-known public health problems related to obesity and the traditional exercised-related solutions offered by public health experts. The Article then considers whether state parks provide a plausible resource that might offer additional solutions to these health problems. Next, the Article examines whether the barrier to pursuing the public's health in public parks reflects a lack of clear legal authority in the DNR. Finding an abundance of authority, we ask why administrators have not exercised it.

The Article also considers whether there are substantial risks or unintended consequences associated with increased use of state parks compared to their potential benefits for personal and public health. In general, there are health costs such as increased vehicular traffic, but the potential benefits likely outweigh the costs. A second kind of cost will come from any increased use of natural lands, but in Georgia, the test case, the natural values at stake are modest.

The Article, therefore, concludes that state parks systems in general, and Georgia's state park system in particular, could develop policies to adopt and promote some park facilities for the purpose of improving personal and public health. This conclusion derives from consideration of scientific evidence, policy needs, and the present scope of state constitutional and statutory authorities. In Georgia, the development and implementation of such policies seems wholly consistent with the scope and intent of relevant legal provisions.

Indeed, one surprising aspect of this inquiry is that Georgia park officials have perhaps not yet recognized that this authority exists, or the possibilities for constructive new policies. The barriers to such policies appear to come from bureaucratic culture and traditional boundaries on thinking rather than legal impediments. Given the ample legal authority and strong policy arguments in favor of promoting health in state parks, state and local government agencies and other interested organizations should immediately consider approaches to maximizing the public health benefits of state parks.

I. The Obesity Problem

Health researchers have documented the relationship between preventing obesity and exercise and public health. The media has made this relationship a frequent topic of local and national coverage. Scientists have concluded that there is a direct cause and effect relationship between exer-

cise and good health, and journalists complement their efforts through a steady stream of news stories that focus on obesity and the exercise solution.⁷

Despite this widespread and well-diffused knowledge about the links between obesity, lack of exercise, and individual and collective health, the obesity crisis has steadily worsened. In December 2001, the U.S. Surgeon General's report entitled *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* noted that 34% of U.S. adults aged 20 to 74 years are overweight, and an additional 27% are obese.⁸ These findings contrast with findings in the late 1970s, when an estimated 32% of adults aged 20 to 74 years were overweight, and 15% were obese.⁹ The *Call to Action* warned that "overweight and obesity may soon cause as much preventable disease and death as cigarette smoking."¹⁰

The Surgeon General's solutions are familiar to public health experts: eat healthier, eat less, and exercise more.¹¹ Lack of exercise, however, may be a greater cause of overweight and obesity than overeating. A March 2002, study published in the *New England Journal of Medicine* found that one's level of exercise is perhaps a more powerful predictor of mortality than any other established risk factor for cardiovascular disease.¹² The correlation between exercise and length of life suggests that exercise, more so than eating less or quitting smoking, is the most efficient way to prevent the health consequences of overweight and obesity.¹³

Knowledge (and even wisdom) does not automatically translate into action. The Surgeon General pointed out that

7. See, e.g., CNN, *CNN.com, Study: Most Americans Don't Exercise Regularly* (Apr. 7, 2002), at <http://www.cnn.com/2002/HEALTH/04/07/americans.exercise/> (last visited Oct. 28, 2002); Robert Bazell, *MSNBC.com, Survival of the Fittest* (Mar. 13, 2002), at <http://www.msnbc.com/news/723655.asp> (last visited Oct. 28, 2002); 10 *Biggest Killers of Black Women*, EBONY: SPECIAL WOMEN'S HEALTH SECTION, Oct. 2001, at 48; Lynda Liu, *CNN.com, Staying Home, Staying Fit* (Feb. 4, 2000), at <http://www.cnn.com/2000/HEALTH/diet.fitness/02/04/home.fitness.wmd/index.html> (last visited Oct. 28, 2002); Rea Blakely, *CNN.com, Diet, Exercise Can Be Powerful Medicine* (Aug. 9, 2001), at <http://www.cnn.com/2001/HEALTH/08/08/blakey.debrief.otscl/index.html> (last visited Oct. 29, 2002).
8. U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES, PUBLIC HEALTH SERVICE, OFFICE OF THE SURGEON GENERAL, *THE SURGEON GENERAL'S CALL TO ACTION TO PREVENT AND DECREASE OVERWEIGHT AND OBESITY* (2001), available at <http://www.surgeongeneral.gov/topics/obesity/calltoaction/CalltoAction.pdf> [hereinafter *CALL TO ACTION*]. The categories of "overweight" and "obese" were based on clinical height and weight measurements in the 1999 National Health and Nutrition Examination Survey (NHANES). For a discussion of methodological issues in identifying and measuring obesity, see *id.* §1, ¶ 1, available at <http://www.surgeongeneral.gov/topics/obesity/calltoaction/toc.htm> (last visited Oct. 29, 2002).
9. *Id.* §1.4, available at http://www.surgeongeneral.gov/topics/obesity/calltoaction/1_4.htm (last visited Oct. 29, 2002).
10. *Id.* Foreword, ¶ 1, available at <http://www.surgeongeneral.gov/topics/obesity/calltoaction/foreword.htm> (last visited Oct. 29, 2002).
11. *Id.* §3, available at http://www.surgeongeneral.gov/topics/obesity/calltoaction/3_0.htm (last visited Oct. 29, 2002).
12. In this study, Stanford University researchers administered treadmill tests to 6,000 middle-age men. The men's lifestyles were monitored for a decade. The data collected indicated that regular exercise increased longevity. Jonathan Myers et al., *Exercise Capacity and Mortality Among Men Referred for Exercise Testing*, 346 *NEW ENG. J. MED.* 793-801 (2002).
13. Despite the conclusion of the Stanford study that exercise is the most important place to begin improving health, media attention continues to focus on fat grams and overeating.

ment of Human Resources, the NASPD, the Georgia Recreation and Park Association (GRPA), the National Recreation and Park Association (NRPA), the PATH Foundation, and the Centers for Disease Control and Prevention (CDC). Other information and data sources include the following: publicly available material on the Internet, e.g., regarding the DNR and its Parks, Recreation, and Historic Sites Division (PRHSD), the Georgia Greenspace Program, the Political Economy Research Center (PERC), the National Park Trust (NPT), and pertinent sections of Georgia's Constitution and authorizing legislation for the DNR.

public health improves through the actions and motivations of individual people. The *Call to Action* emphasized that steps need to be taken to encourage and motivate people to lose weight and decrease their risk of disease. “Individual behavioral change can occur only in a supportive environment with accessible and affordable health food choices and opportunities for regular physical activity.”¹⁴

Public health strategies for increasing physical activity during leisure time have emphasized activities that are centered either around the home, such as gardening, or around the neighborhood, such as recreational walking, jogging, and cycling.¹⁵ Strategies aimed at residential neighborhoods reflect the rampant suburban development of the late 20th century, which has tended not to include the creation of parks and green spaces. Some community planners and public health experts have started collaborating on community, local, and regional plans to foster disease prevention and health promotion.¹⁶ Such approaches to long-term community planning can foster reductions in risk factors and adverse health outcomes by encouraging the development of bikeways, sidewalks, parks, and other green spaces designed to encourage and accommodate both routine, daily, and leisure-time physical activity.

Emphasis on active lifestyles is often linked to the idea that communities and government agencies should encourage and provide greater access to exercise opportunities. The Surgeon General’s report did not list specific activities that local communities should foster, though it did recommend increased physical education in schools and the provision of “safe and accessible recreation facilities for all ages.”¹⁷ The report does not mention public parks. Only recently have federal authorities begun to consider the role of federal public lands in health promotion.¹⁸ Left out of policy and scholarly discussion thus far has been any substantial consideration of the possible health role that state parks might play.

II. Might State Parks Shrink Waistlines?

States operate 1,979 public parks on an aggregate 8,524,747 acres and 792 recreation areas on an aggregate 1,226,107 acres.¹⁹ Public use of these parks is enormous. A total of 766,021,272 people visited state parks between July 2001 and June 2002.²⁰ These visitors had access to some 3,948 operational trails covering 26,337 miles.²¹ The average state park system attracted more than 15 million visitors in 1994—five times more visitors than Yellowstone National Park.²²

The rise of the National Association of State Park Directors (NASPD) reflects the growth and institutionalization of the nation’s systems of state parks. Besides taking collective positions on issues affecting park programs, the NASPD aims “to enhance the ability of the individual state park directors to perform their responsibilities for administering state park programs of the highest quality for the *benefit* of both the state park resources and the *public*.”²³ The public, it has noted, maintains an attitude that a walk in a park is an experience sought, among other reasons, for the purpose of fitness. According to the NASPD, state parks offer an ideal open space in close proximity to people’s homes that can be employed for exactly this purpose:

Large tracts of open space which also feature recreational amenities are the realm of state parks. State parks generally offer more land than local parks, but unlike most national parks, are close enough to home for anyone who seeks convenient recreation. While maintaining statewide appeal, state parks can still accommodate the specific demands of a local community.²⁴

The NASPD has thus provided a strong rationale for transforming state parks into venues for improving public health.

To foster a practical relationship between recreation, health, and state parks, a different national organization, the National Recreation and Park Association (NRPA), has begun to encourage park and recreation authorities to collaborate with local public health officials and other government agencies to promote the health aspects of park services.²⁵ The NRPA has also encouraged state legislatures to make specific reference to the value of recreation in public laws and health regulations, and encouraged its “state affiliates and other recreation-related organizations to continue and/or initiate recreation programs and functions with health and wellness objectives.”²⁶

14. CALL TO ACTION, *supra* note 8, §2.2, ¶4, available at http://www.surgeongeneral.gov/topics/obesity/calltoaction/2_2.htm (last visited Oct. 29, 2002).

15. Jeffrey P. Koplan & David W. Fleming, *Current and Future Public Health Challenges*, 284 J. AM. MED. ASS’N 1696 (2000).

16. WILLIAM DIETZ ET AL., REDESIGNING CITIES AND SUBURBS FOR PUBLIC HEALTH (Regional Plan/CDC Working Group on Community Planning and Public Health, Working Paper, 2002).

17. See Press Release, U.S. Department of Health and Human Services, Overweight and Obesity Threaten U.S. Health Gains (Dec. 13, 2001), available at <http://www.hhs.gov/news/press/2001pres/20011213.html> (last visited Oct. 29, 2002). The Surgeon General’s report recommends that communities provide a forum in which all community members can discuss “the problem of overweight and obesity within the community.” The report concludes with a “Vision for the Future” that reiterates the specific goal of making sure that all adults get at least 30 minutes of moderate exercise most days of the week. CALL TO ACTION, *supra* note 8, §4, available at http://www.surgeongeneral.gov/topics/obesity/calltoaction/4_0.htm (last visited Oct. 29, 2002).

18. See, e.g., MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICE, THE U.S. DEPARTMENT OF AGRICULTURE, THE U.S. DEPARTMENT OF THE INTERIOR, AND THE U.S. DEPARTMENT OF THE ARMY, TO PROMOTE PUBLIC HEALTH AND RECREATION (2002); *Interior Secretary and N.P.S. Director Promote “Pathways to Health” and National Trails Day Kickoff*, AM. HIKER, Aug./Sept. 2002, at 1 (Secretary of the Interior Gail Norton said that private and government partnerships “build trails and trails build healthy Americans”).

19. These numbers are based on data compiled by the NASPD for the period July 2000 through June 2001. It should be noted that the state of Alaska accounts for approximately 2.9 million of the park acres. NASPD, *State Park Statistics, Inventory*, at <http://www.naspd.org/> (last visited Oct. 28, 2002).

20. NASPD, *State Park Statistics, Visitation and Use*, at <http://www.naspd.org/> (last visited Oct. 28, 2002).

21. See *supra* note 19.

22. PERC, *Parks in Transition: A Look at State Parks 3*, at <http://www.perc.org/publications/research/stateparks.html> (last visited Oct. 29, 2002).

23. NASPD, *About NASPD*, at <http://www.indiana.edu/~naspd/about.html> (last visited Oct. 28, 2002).

24. See *supra* note 2, §c(1).

25. NRPA, *Public Policy*, at <http://www.nrpa.org/department.cfm?departmentID=6&publicationID=11> (last visited Oct. 29, 2002).

26. GRPA, *GRPA Mission*, ¶4, at <http://www.grpa.org/> (last visited Jan. 6, 2003).

The NRPA's efforts have resulted in several specific programs.²⁷ Active Living Healthy Lifestyles emphasizes the role of parks and recreation in health promotion, and the opportunities for people to increase activity levels through parks and recreation.²⁸ Hearts N' Parks, a recently launched national, community-based program, encourages people to adopt heart-healthy behaviors as part of regular activities offered by local park and recreation departments.²⁹ Finally, Active Options is a fitness program developed by one park and recreation district in Foothills, Colorado, and includes a fitness-testing protocol for adult programming.³⁰

Given this growing recognition of the role that parks could play in public health, the question arises: why are there so few coordinated park and health programs in the United States?

III. Case Study: Could Georgia Use Its Parks for the Public Health?

The Georgia DNR aims "to sustain, enhance, protect and/or conserve Georgia's natural, historic and cultural resources for present and future generations."³¹ The Parks, Recreation, and Historic Sites Division (PRHSD) of the DNR is the organizational unit that bears specific responsibilities for state parks. With an annual budget of more than \$37.8 million, the PRHSD employs 501 full-time merited employees, 372 full-time hourly employees, and 250 part-time and seasonal workers.³² The division operates 47 state parks and 14 historic sites on approximately 70,000 acres of state lands that include 117 trails covering some 459 miles.³³ During 1994, an estimated 15.5 million people visited these facilities.

More than one-half of Georgia's current population of 8,383,915 people,³⁴ or some 4,231,300 people, live in the Atlanta metropolitan area.³⁵ Atlanta has two state parks within 30 minutes of its center. An additional eight parks are within an hour's drive of downtown.³⁶ There are 19 parks within 100 miles of the city.³⁷

The statute that empowers the DNR to carry out its fundamental activities³⁸ establishes several basic duties relevant to parks and recreation. Within the scope of these duties, which include direct responsibility for appraising the state's recreational needs³⁹ and formulating a comprehensive recreation policy for the state,⁴⁰ the PRHSD has the discretion to develop, enhance, and promote state parks programs that directly affect the health and general welfare of the people of the state. There do not appear to be any legislative prohibitions with regard to traditional forms of beneficial exercise, including walking, jogging, running, swimming, and bicycling in state parks and recreational facilities.⁴¹

The Georgia Legislature has conferred a host of general authorities on the DNR. The DNR has the authority to study recreational resources, assess land suitable for acquisition,⁴² and provide and maintain facilities and programs.⁴³ More importantly, the DNR has the authority to plan and conduct publicity campaigns designed to attract visitors,⁴⁴ to enter into contracts for work on parks,⁴⁵ and to cooperate with other state and federal agencies to achieve any of these goals.⁴⁶

Park Name	Nearest Town	Distance From Atlanta
Sweetwater Creek State Park	Lithia Springs	17.15
Panola Mountain State Park	Stockbridge	21.69
Red Top Mountain State Park and Lodge	Cartersville	43.66
John Tanner State Park	Carrollton	47.55
Fort Yargo State Park	Winder	49.83
High Falls State Park	Jackson	49.87
Hard Labor Creek State Park	Rutledge	49.93
Indian Springs State Park	Flovilla	55.03
Sprewell Bluff State Park	Thomasston	64.28
Amicalola Falls State Park	Dawsonville	69.74
F.D. Roosevelt State Park	Pine Mountain	81.92
Moccasin Creek State Park	Clarksville	83.81
Fort Mountain State Park	Chatsworth	85.40
Smithgall Woods Conservation Area and Lodge	Helen	87.14
Unicoi State Park and Lodge	Helen	87.14
Watson Mill Bridge State Park	Comer	92.54
Tugaloo State Park	Lavonia	93.31
James H. (Sloppy) Floyd State Park	Summerville	93.73
Tallulah Gorge State Park	Tallulah Falls	95.74

Six more state parks are between 100-110 miles of Atlanta.

Park Name	Nearest Town	Distance From Atlanta
Victoria Bryant State Park	Royston	104.88
Bobby Brown State Park	Elberton	106.58
Richard B. Russell State Park	Elberton	106.58
Hart State Park	Hartwell	107.36
Vogel State Park	Blairsville	109.15
Black Rock Mountain State Park	Mountain City	110.35

Residents in the northern Atlanta suburbs reside significantly closer to north Georgia parks than these charts suggest.

38. See GA. CODE ANN. §12-3-50(1) (2000).

39. *Id.* §12-3-1(2).

40. *Id.* §12-3-1(1). The DNR also has responsibility to help "establish and promote recreation standards." *Id.* §12-3-1(5).

41. See *id.* §12-3-10.

42. See *id.* §12-3-32(a)(1).

43. See *id.* §12-3-32(a)(8).

44. See *id.* §12-3-32(a)(11).

45. See *id.* §12-3-32(a)(7).

46. See *id.* §12-3-32(a)(1) & (5).

27. See generally NRPA & active.com, *activeparks.org*, at <http://www.activeparks.org/> (last visited Jan. 6, 2003).

28. See Kathy J. Spanger, *Doing Our Part to Promote Healthy Lifestyles*, in 32 PARKS & RECREATION 54 (1997) (discussing the NRPA's "Active Living/Healthy Lifestyles" program).

29. National Heart, Lung & Blood Institute (NHLBI), *Hearts N' Parks*, at http://www.nhlbi.nih.gov/health/prof/heart/obesity/hrt_n_pk/ (last visited Jan. 6, 2003).

30. See *Foothills Parks & Recreation District*, at http://www.ifoohills.org/ifoohills/Active_Options.asp (last visited Nov. 23, 2002).

31. GDNR, *About DNR Divisions*, at <http://www.dnr.state.ga.us/dnr/intro.html> ¶ 1 (last visited Oct. 28, 2002).

32. *Id.* ¶ 5.

33. *Id.* ¶ 4.

34. U.S. Census Bureau, *U.S. Census Bureau Quick Facts, Georgia*, at <http://quickfacts.census.gov/qfd/states/13000.html> (last visited Oct. 28, 2002).

35. Central Atlanta Progress, *Central Atlanta Action Plan, Downtown Atlanta: Legacies, Trends, and Projections* tbl. 1, at <http://www.centralatlantaprogress.org/ca2p/actionplanII.pdf> (last visited Oct. 28, 2002).

36. See Georgia On My Mind, *State Parks*, at <http://gastateparks.org/list.asp?go=1> (last visited June 19, 2002); Mapquest, *Mapquest Driving Directions*, at <http://www.mapquest.com/directions/main.adp> (last visited Oct. 28, 2002).

37. The state parks within 100 miles of Atlanta:

To date, the DNR has responded to this broad grant of authority by focusing only on a limited range of recreational activities, notably hunting, fishing, and camping.⁴⁷ Despite the lack of legal barriers, and the apparent absence of organizational “turf” problems that might constrain the merging of state park opportunities with public health interests, park programs and health agencies traditionally have not been active partners. Administrators at DNR do not seem to have recognized the many roles that state parks might play, including greater encouragement that parks be used in pursuit of better health. Perhaps the limitations are conceptual; with the idea of using the parks for the public’s health, DNR administrators may now be willing to expand their policy focus.

Indeed, a few recent legislative and private policy initiatives have started to expand the practical conception of the role state parks might serve. These developments include the Georgia Greenspace Program, and the creation of the Silver Comet Trail and the Chattahoochee River Corridor.

The Georgia Greenspace Program is a product of U.S. Senate Bill 399, which was signed into law in April 2000.⁴⁸ Senate Bill 399 created a framework that enables counties and municipalities to preserve community greenspace.⁴⁹ Specifically, the bill promotes the adoption by cities and counties of policies and rules to preserve at least 20% of their land areas as greenspace for both informal recreation and natural resource protection.⁵⁰ A key objective of the program is to provide “recreation in the form of boating, hiking, camping, fishing, hunting, running, jogging, biking, walking, and similar outdoor activities.”⁵¹ The Georgia Greenspace Commission, statutorily created and administratively attached to the DNR, administers both the Georgia Greenspace Program and the Georgia Greenspace Trust Fund.⁵²

The Silver Comet Trail is a rails-to-trails project whose aim is to convert abandoned railway beds into recreational venues. Named for the Silver Comet passenger train that ran between Boston and Birmingham from 1947 to 1968, the

trail will cover almost 60 miles, from Smyrna, Georgia, to the Alabama state line when it is completed—a feat that has been promised for April 2003.⁵³ Currently, it runs 37.5 miles through Cobb, Paulding, and Polk counties.⁵⁴ The Silver Comet project has required the collaboration of multiple government agencies and NGOs, including the Georgia Department of Transportation, the Georgia DNR, county governments, and the PATH Foundation—a nonprofit foundation committed to introducing green way trails to the state.⁵⁵ Funding was obtained from the state legislature, the federal government,⁵⁶ and the PATH Foundation. The trail is 12-foot wide and paved with asphalt or 5-inch-thick concrete. Restricted to nonmotorized uses, including walking, jogging, wheelchairs, skating, and bicycling, the trail was estimated to have drawn one million people during its first year.⁵⁷ Trail users already include people from both urban and rural areas, some who previously had never cycled or exercised despite being counseled by their physicians to do so.⁵⁸

The idea of “linear parks” with an exercise focus may be catching on: the Chattahoochee River Corridor project follows the successful heels of the Silver Comet project. Plans for the corridor call for a continuous trail running some 215 miles along one or both sides of the Chattahoochee River from White County to Columbus, Georgia.⁵⁹ The corridor will include connecting trails that provide access to 14 activity “nodes” that will enable community recreational uses and provide recreational services.⁶⁰

These recent initiatives to develop new outdoor recreational opportunities have emerged from the Georgia Legislature and other local and regional actors like the Georgia Recreation and Park Association, a private, nonprofit organization that promotes “healthy life styles through the utilization of park facilities.”⁶¹ These initiatives suggest that the Georgia DNR can make the necessary political arguments and find the support it needs for new recreation and health-focused initiatives. These initiatives, coupled with the DNR’s broad statutory authority, may even represent a mandate to develop and promote park resources and recreational facilities in a manner consistent with the state Constitution’s principles of health and general welfare. Habit and the nontraditional nature of the opportunity appear to be the only factors limiting the DNR’s ability to emphasize the significant public health aspects of state parks.

Furthermore, the general language of many of the organic statutes for the DNR and the specific legislative language creating the Georgia Greenspace Program suggest that the

47. The two divisions of the DNR that receive the most state funding are the PRHSD (\$41,693,705) and the Wildlife Resources Division (\$39,585,100). DNR, *Budget Information, Department Summaries* 63, 240, at <http://www.ganet.org/services/newleg/budget2003/deptsum.pdf> (last visited Oct. 28, 2002). According to the divisions’ descriptions provided by the budget, the Wildlife Resources Division manages land for “public hunting, fishing, and educational purposes.” *Id.* at 247. The PRHSD, while handling a plethora of responsibilities is only recognized, by the budget, for managing “campgrounds, cottages, lodges, swimming pools, group campgrounds, and golf courses.” *Id.* But see DNR, *Georgia DNR Strategic Plan Update §4(a-f)*, at <http://www.ganet.org/dnr/wild/> (last visited Oct. 28, 2002). The DNR’s strategic plan focuses on trails and recreation, but does not include any mention of health benefits.

48. GA. CODE ANN. §36-22-1; see DNR, *Georgia Greenspace Program*, at <http://www.ganet.org/dnr/greenspace/> (last visited Oct. 28, 2002).

49. Greenspace is defined as “permanently protected land and water, including agricultural and forestry land, that is in its undeveloped, natural state or that has been developed only to the extent consistent with, or is restored to be consistent with, one or more listed goals for natural resource protection or informal recreation.” DNR, *Georgia Greenspace Program* ¶ 5, at <http://www.state.ga.us/dnr/greenspace/description.html> (last visited Oct. 28, 2002).

50. *Id.* ¶ 8.

51. *Id.* ¶ 5.

52. See GA. CODE ANN. §36-22-2. The Georgia Greenspace Trust Fund is funded by appropriated state funds, federal funds, donated funds, and interest income.

53. See *Silver Comet Trail*, at <http://silvercomet.tripod.com/> (last visited Nov. 14, 2002).

54. *Id.*

55. PATH Foundation, at <http://www.pathfoundation.org/> (last visited Oct. 28, 2002).

56. See Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 107 (1998) (monies from gasoline taxes allocated for projects such as trails).

57. Guy S. Swinnerton, RECREATION AND CONSERVATION: ISSUES AND PROSPECTS, in LEISURE STUDIES: PROSPECTS FOR THE TWENTY-FIRST CENTURY (E.L. Jackson & T.L. Burton eds., 1999).

58. Personal Communication with E. McBrayer (Oct. 2000).

59. Personal Communication with H. Young (Oct. 2000).

60. *Id.*

61. See GRPA, *What Is GRPA?*, *supra* note 26, ¶ 1, at http://www.grpa.org/story.cfm?story_id=617&pageID=717 (last visited Oct. 28, 2002).

Georgia Legislature intends for state parks and greenspaces to be used for a variety of physical activities, many of which are associated with health benefits and disease prevention. Given this apparent legislative intent, implementing agencies and other interested organizations might consider approaches to maximize user benefits in relation to budgetary and organizational resources required to maintain parks and other facilities.⁶²

IV. Downsides to Linking Parks to Health

Given the compelling need for new strategies to confront the obesity crisis, and the conceptual and practical plausibility of pursuing public health through initiatives focused on state parklands, the arguments for such policies appear overwhelming. The potential benefits of such policy initiatives are great, but there are also potential costs, to the public health and to the public lands.

While many Georgians, including the DNR, tend to link the concept of parks to specific kinds of use and recreation, such as hunting, fishing, and camping,⁶³ other Georgians link parklands to the conservation of natural resources. There is certainly a tension inherent in the relationship between recreation and conservation, a “use-versus-protection” dilemma.⁶⁴ Increased recreational uses—albeit for human health benefits—could have potentially adverse effects on the environment and ecology of parks. Canadian Guy Swinnerton has summarized this tension succinctly:

The potential for further conflict between recreation and conservation within protected areas in particular seems inevitable with the growth in demand for recreation and tourism opportunities that favor natural settings. This situation is compounded by the concern over the earth’s biodiversity and the special role that protected areas have to play in addressing this problem. At the same time, the broadening scope of protected areas means that recreation and conservation problems cannot be isolated from the broader issues of regional land use planning and the concern for the social and economic well-being of communities both within and outside protected areas.⁶⁵

Swinnerton is most concerned with parks and natural areas that attract additional visitors for both natural and recreational uses. In particular, he focuses on areas where the natural values are susceptible to long-term harm from recreational use. Increased recreational use, however, may be less serious for parks near urban centers, especially smaller parks and parklands obtained by states at discounted rates, in part because of their prior human use. Still, there must be objective assessment of the impact of recreational activities on the natural environment. The public health benefits of increased recreational use must be weighed against the additional impact on park environments and ecosystems.

Concerns about conservation versus recreation may be least severe for the state parklands most accessible to urban

populations. That seems true in Georgia, for example, where most of the state parks are fairly small.⁶⁶ Georgia is not a “public land” state. It obtained most of its state parklands, including those parks near urban centers, primarily to provide open fields, forest, rivers, and other non-built areas. These are not sites preserved for unique biodiversity or other natural values beyond their non-built character.⁶⁷ It may be possible, however, in all parks, even smaller urban parks like Central Park in New York City, to favor recreation and also to conserve some biodiversity and other natural values.⁶⁸

While the use of state parks can lead to substantial health benefits, there will be health costs as well. If people replace sloth or local exercise with exercise at a greater distance from their residence, the risk of travel and the added pollution weigh in as health costs. In addition, there may be individual health risks to park exercise, including contact dermatitis, e.g., poison ivy, and injuries resulting from falls.⁶⁹ Increased crime may also become a risk, due to the isolation of park settings, though park officials can improve security measures and encourage park users to exercise during daylight hours.

V. Conclusion

Despite the opportunities that state parks present for improved public health, there are still numerous barriers to fulfilling this potential. Besides obvious threats like rapid land development and adjacent commercialism, the financial pressures produced by decreasing budgets and legislative expectations of self-sufficiency limit parks’ futures.⁷⁰ Implementing policies that facilitate the health benefits associated with the use of public lands may increase user fees as a result of increased visitation to state parks, increase user donations and community support, and increase funds available from federal, state, and nongovernmental sources for the purpose of improving public health.

Increased use of state parklands could contribute substantially to disease prevention and improve public health in the United States. State park policy should include as a goal optimizing natural resources to improve public health and welfare by creating facilities, such as trails and bike paths, and promoting their use. Besides obesity and cardiovascular dis-

66. Georgia has 51 state parks comprised of an aggregate 74,962 acres; the average Georgia state park size is, then, 1,470 acres. See *supra* note 19 and accompanying text. The national average state park size is 4,308 acres; even without Alaska’s extremely large parks, the national average would be 2,886 acres. Thus, on average, Georgia state parks are one-third the size of the national average and one-half the size of the national average without Alaska.

67. Interview with Russ England, Assistant Chief of Fisheries, Georgia Department of Natural Resources, Wildlife Resources Division (Nov. 3, 2000).

68. See Greg Aplet, *On the Nature of Wildness: Exploring What Wilderness Really Protects*, 76 DENV. L. REV. 347 (1999).

69. Some risks from similar activities may be lower in parks than on city streets or in city parks.

70. A survey of state park directors conducted in October 1999, by the National Park Trust identified a number of threats to state parks that include overuse, traffic, adjacent commercialism, encroachment, rapid land development, rising land values, and transition (buffer) zones. Indeed, Georgia ranked first on a list of the 10 most threatened states in terms of state park acres at risk (8,212 acres threatened). DNR, *Vision/Mission Statement*, at <http://www.dnr.state.ga.us/dnr/vision.html> (last visited Oct. 28, 2002).

62. The Georgia Coalition for Physical Activity and Nutrition may represent one programmatic opportunity for bridging these interests. The coalition, convened and staffed by the Georgia Department of Human Resources, counts among its members approximately 200 organizations, including some that represent park and recreation interests. Personal Communication with V. Pilgrim (Nov. 2000).

63. See *supra* note 47.

64. Swinnerton, *supra* note 57.

65. *Id.*

ease, many people consider exercise in natural surroundings a way to relieve stress, which improves mental health.⁷¹

Emphasizing the health benefits of state parks could be good for the health of parks and park agencies as well. While average state park visitation across the United States expanded by 2.2% annually from 1980 through 1994, the average system's total budget declined by 1.5% annually, reflecting decreases in capital spending for new facilities, improvements, and maintenance.⁷² State legislatures increasingly expect parks to be self-sufficient, but the requisite capital outlays—for construction, land acquisition, and maintenance—cannot be supported through increased park revenues alone.⁷³ State parks must pursue alternative sources of funding⁷⁴ to ensure that their budgetary and fiscal needs are met. Emphasizing the health benefits of state parks could justify such requests for additional sources of funding.

In states like Georgia, where there is already ample statutory authority and direction for park authorities to include public health as a policy priority, the state and local agencies responsible for the parks need to rewrite their mission statements to reflect this priority. With public health a clear part of their mission, agency managers and oversight

boards might be more inclined to develop explicit policies that commit park resources to disease prevention and health promotion.⁷⁵

Agencies could provide information—through brochures, websites, and postings at trailheads or exercise stations—about specific health benefits resulting from use of different park resources, e.g., calories expended as a function of distance walked, or energy burned during recreational water activities. Park and state tourism agencies could market their parks in relation to their myriad health benefits by providing descriptions of specific health opportunities at a given site, e.g., projected calorie expenditures for a five-mile hike over a trail with level terrain, or for a one-mile walk over varied terrain, or for kayaking a distance of one mile. Finally, to encourage additional health goals, park agencies might aggressively discourage tobacco use on park grounds.

Once these recommendations were adopted in Georgia (or in another state), their development and implementation could then be shared with all 50 states through annual meetings of the NASPD, the NRPA, the National Conference of State Legislatures, and other key organizations. Successful adoption of these recommendations would assist in making more effective use of state parks, as an important parcel of public lands, to improve the public's health.

71. DNR, *Chattahoochee River Greenway Planning and Implementation Handbook* ix, at http://www.state.ga.us/dnr/greenspace/c_pdfs/03AkPreExSum.pdf (last visited Oct. 28, 2002). Hoy Murphy, West Virginia DNR, *Hiking West Virginia Program* ¶ 1, at <http://www.dnr.state.wv.us/2002news/02nws075.htm> (last visited Oct. 28, 2002).

72. *Id.* tbl. 1.

73. *Id.* at conclusion.

74. Alternative sources of funding might include federal legislative initiatives (e.g., state-level wildlife conservation, restoration, and revitalization funds for which state and local parklands are eligible), state park foundations, state-dedicated revenue resources (e.g., dedicated general tax funds, sales taxes, and lottery proceeds), increased self-sufficiency (e.g., through specific user fees), and partnerships with public and NGOs.

75. To maximize park-user benefits, management decisions must be informed by accurate and reliable data. Such data may be obtained through prospectively designed surveys and assessments of factors including user preferences for specific sites and for specific recreational facilities (e.g., walking, jogging, mountain cycling, or hiking trails), intended and actual frequency of facility use, duration of facility use per visit, user characteristics (e.g., sociodemographic factors, such as age, sex, highest educational level completed, distance willing to travel from residence to park/facility), perceived and desired benefits resulting from park use, and recommendations for increasing the beneficial uses and utilities of the facilities.