

STATE OF WEST VIRGINIA

**PRELIMINARY INTERIM EVALUATION
REPORT OF THE DIVISION OF
NATURAL RESOURCES
(STATE PARK SYSTEM)**

Self-Sufficiency Issues
and
Cash Flow Problems

**OFFICE OF LEGISLATIVE AUDITOR
Performance Evaluation & Research Division
CAPITOL BUILDING**

CHARLESTON, WEST VIRGINIA 25305

PE 94-20-20

WEST VIRGINIA LEGISLATURE
Performance Evaluation and Research Division

Building 5, Room 751A
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0592
(304) 347-4890
(304) 347-4889 FAX

Antonio E. Jones, Ph.D.
Director

January 6, 1995

The Honorable A. Keith Wagner
State Senate
Box 446
Iaeger, West Virginia 24844

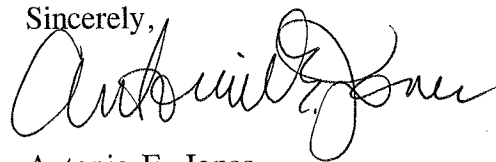
The Honorable Joe Martin
House of Delegates
Building 1, Room 213E
1900 Kanawha Blvd. East
Charleston, West Virginia 25305

Gentlemen:

This is a preliminary interim evaluation report of the Division of Natural Resources (State Park System) which we will report to the Joint Committee on Government Operations on Monday, January 9, 1995. The issues covered herein are "Self-Sufficiency Issues and Cash Flow Problems".

Let us know if you have questions.

Sincerely,



Antonio E. Jones

AEJ/wsc

Enclosure

The mission of West Virginia's state park system is to "provide outdoor recreational opportunities for the citizens of this state and its visitors" (WVC 5B-1-13a). In order to accomplish the mission of providing outdoor recreation, the park system must have adequate financial resources. Without adequate funding, expansion of needed facilities cannot be undertaken, and existing facilities cannot be maintained properly.

This report examines the financial management of the park system as it relates to the system's ability to provide recreational opportunities. In particular, the report focuses on areas of financial management for which the Division of Parks has direct control. These areas include the control of park expenditures, and the amount of revenue collected from patrons of state parks (user fees).

With respect to expenditures, there are several issues which are discussed. One issue is that the Division of Parks can improve its use of private foundations to reduce state park expenditures. In addition, a state funded restaurant at Grave Creek Mound park is inappropriate for state involvement. State operated restaurants at other parks are needed because they have overnight lodging and they are in remote areas. Grave Creek park is a day-use park in the middle of Moundsville. The restaurant in Grave Creek park should be concessioned to a private vendor.

With respect to revenue, the fiscal limitations of funding state parks make it necessary that the state park system be as self-sufficient as possible. West Virginia is among the top five self-sufficient park systems in the nation, with 64% of its operating expenditures covered by user fee revenue. However, this can be improved significantly by requiring that the eight resort parks be completely self-sufficient. Currently, only two are self-sufficient. The resort parks have all the characteristics of a private good rather than a public good. The attractions that they offer and the high operating costs warrant a self-sufficiency policy.

Finally, during a review of the budgetary re-allocation between the former Division of Tourism and Parks, and the Division of Natural Resources, it was discovered that as of November 30, 1994 there was \$2.1 million in unpaid obligations in the Parks Operating Fund. The cash balance in the fund was only \$1.3 million as of the same day. Further examination revealed that this budget deficit existed and has been concealed since FY 1990. Without immediate action, the Parks Section will finish FY 1995 with a \$1.1 million deficit, which has occurred without detection in each of the past five fiscal years.

ISSUE 1: Marketing of State Parks

Many of the facilities such as lodge, cabins and campgrounds within the state park system go underutilised. This is exemplified by our December visit to Cacapon State Park where the lodge was completely empty. The annual occupancy rate for fiscal year 1994 of

all the lodges was 56.89%, while cabins were at 57.94% and campgrounds were at 23.82%. During the winter months, the occupancy rate for lodges and cabins was 37.89% and 39.38% respectively.

It is noticeable from these figures there are a significant amount of vacancies that exist for these facilities. These vacancies represent an untapped source of revenue for the state park system. In order to reduce the amount of vacancies, the facilities where these vacancies exist must be aggressively marketed to attract customers to fill these vacancies.

The state park system currently relies on the Division of Tourism for its marketing needs in accordance with WVC 5B-1-5, subsection (6), which states that the Division is required to "...effectively promote and advertise...to increase public knowledge and use" of parks. The Division of Tourism's marketing activities include: literature and brochure design, printing, and distribution; transfer of calls for information and reservations on the 1-800-CALL-WVA phone line per gratis, writing press releases, and advertising media campaigns to promote the state's image.

While the Division of Tourism is responsible for advertising the state park system as a whole (with 20% of the advertising budget), the parks system, separate from the Division of Tourism, should have a focused marketing plan. This plan should include a marketing specialist, responsible for only the parks, who would facilitate the self-sufficiency (profitability) of the system. Each park should have its own marketing plan with sales representatives for each of the main parks and groups of smaller parks to be responsible for executing the marketing specialist's directives.

RECOMMENDATION :

- 1) *The state park system should employ a marketing specialist. The marketing specialist and each park superintendent should develop an aggressive marketing plan which considers the special features and attractions at each park. Qualifications for the marketing specialist should include a degree in business administration, marketing or a related field with five to six years experience in services or consumer goods marketing.*

ISSUE 2: The State's Eight Resort Parks Should Be Completely Self-sufficient

In theory, a park is considered a public good. By definition, a public good in the purest sense is a good that has a marginal cost of zero when it is used by an additional individual, and it is not feasible or desirable to ration its use. For these reasons, pure public goods such as national defense are provided for by the public sector without exclusion, and

individuals are required to support these goods through taxation.

A park is not the purest form of a public good. The marginal cost of using a park by an additional individual is low but greater than zero. The greater a park is used the less benefit others receive, and the greater the cost incurred to maintain the park's enjoyable condition. Consequently, in many cases it is necessary to restrict the use of a park when it is feasible.

The most common method of restricting the use of a park is to charge individuals a fee for various park uses, better known as "user fees". However, there are limitations to the imposition of user fees. If user fees exceed the benefits of park use, then over-restriction of the park will occur and the community's overall benefit will be reduced. Furthermore, if it is difficult to prevent others from using a park without paying the fee, there will be resistance to paying a fee. As a result, certain uses of a park, such as picnicking and hiking, are provided at little or no charge. Therefore, it is common for many parks to incur operating costs that exceed the revenue collected from user fees.

In general, park systems are funded partially from user fees, with the balance coming from the state general fund and/or dedicated sources. The extent to which a park system is funded by user fees indicates its self-sufficiency. Table 1 illustrates that in fiscal year 1993, West Virginia's park system generated \$14.9 million in user fees (operating revenue), while incurring \$23.3 million in operating expenses. This translates into a self-sufficiency ratio of 64% (revenue/expenses). This places West Virginia among the top five self-sufficient park systems in the nation behind Vermont, Alabama, Missouri and Indiana. The remaining \$8.4 million required for operations was appropriated by the Legislature.

TABLE 1: State Park System Deficits and Self-sufficiency

Fiscal Year	Total Operating Revenue	Total Operating Expenditures	Operating Deficit	Self-sufficiency
1990	\$12.0 M	\$19.4 M	-7.4 M	61.9%
1991	\$13.0 M	\$21.6 M	-8.6 M	60.2%
1992	\$14.3 M	\$22.9 M	-8.6 M	62.4%
1993	\$14.9 M	\$23.3 M	-8.4 M	63.9%

The fiscal limitations of funding state parks make it necessary to determine if the park system can be more self-sufficient without overly restricting park use. This involves determining an optimal level of self-sufficiency. Although the state park system has a relatively high level of self-sufficiency, there are indications that this can be improved significantly.

One indication is that eight state parks have been developed into resort areas that have more of the characteristics of private goods than public goods. The development of lodging facilities, golf courses, restaurants and swimming pools at these resorts substantially raise the marginal cost of park use. Because of the high marginal costs, exclusion is necessary. As stated previously, public goods typically have low marginal costs and exclusion is infeasible or undesirable.

Since the resort parks are essentially private goods, the state should require by administrative policy that they be completely self-sufficient. Table 2 shows that only Cacapon park was completely self-sufficient and Canaan Valley was very close. If all resorts were self-sufficient in 1993, the operating deficit of the park system would have been reduced by one-fourth or \$2.1 million. On average, these parks are close to self-sufficient at 82.5%. A combination of cost reduction and revenue increases should make complete self-sufficiency possible for resort parks.

This approach would impose more fiscal accountability on the park system. In addition, parks which cannot be self-sufficient because of lesser attractions can be provided and well maintained. As a means to accomplish the goal of self-sufficiency, the state should implement a bonus incentive to superintendents and staff of resort parks for achieving profitability. The bonus should be a percentage of the profit made by the resort park.

TABLE 2: State Resort Parks - Fiscal Year 1993

Resort Park	Operating Revenue	Operating Expenditures	Operating Deficit/Gain	Self-Sufficiency
Blackwater Falls	\$2.1 M	\$2.6 M	-438,647	80.8%
Cacapon	\$1.8 M	\$1.6 M	+199,292	112.5%
Canaan Valley	\$0.4 M	\$0.4 M	-3,707	99.2%
Hawks Nests	\$0.6 M	\$1.0 M	-428,123	57.3%

North Bend	\$0.5 M	\$0.9 M	-341,334	60.5%
Pipestem	\$3.8 M	\$4.5 M	-713,754	84.2%
Twin Falls	\$0.8 M	\$1.0 M	-213,850	78.8%
Tygart Lake	\$0.4 M	\$0.6 M	-190,494	67.6%
Totals	\$10.4 M	\$12.6 M	-2,130,517	82.5%
% of Park System	69.8%	58.6%	25.5%	n/a

One way to enhance revenue at resort parks is to impose an entrance fee. Thirty-eight states charge some kind of entrance fee. In many cases, states with entrance fees do not impose them at all state parks. Invariably they are imposed at high-demand facilities. These facilities usually have the greatest revenue raising potential and the highest operating costs.

West Virginia imposes a \$1 entrance fee per vehicle at only one state park, Stonewall Jackson. This is a relatively low-demand park compared to the resort parks. The revenue raised from the fee was only \$22,337 in fiscal year 1994.

According to attendance estimates made by the Division of Parks, the resort parks had nearly 3.5 million visitors in 1993. Assuming that 15% of visitors would enter free because of age discounts, a \$1 entrance fee per person would raise close to \$3 million at resort parks. On average, this would make them 100% self-sufficient (see Table 3).

The reluctance to expand the entrance fee to other state parks is based on concerns for the additional financial burdened placed on West Virginians, a possible drop in attendance, and a possible loss of out-of-state visitors to other states. Although these concerns are valid, they are mitigated when the fee is limited to resort parks. First, an entrance fee would be affordable for most visitors of resort parks. A customer satisfaction survey conducted for the Division of Parks showed that 57% of visitors to lodge and resort parks have an annual household income exceeding \$40,000. Second, the survey indicated that 40% to 93% of overnight visitors at resort parks are from out-of-state (see Table 3). Therefore, most of the impact would fall on out-of-state visitors. Finally, the loss of out-of-state visitors to other states is cushioned by the fact that most states impose an entrance fee, including neighboring Virginia and Maryland.

TABLE 3: Resort Park Attendance - Fiscal Year 1993

Resort Park	Annual Attendance	Out-of-State Overnight Visitors	Estimated Paying Attendance	\$1 Fee Per Person
Blackwater Falls	527,091	75.8%	448,027	\$448,027
Cacapon	349,256	93.3%	296,868	\$296,868
Canaan Valley	542,642	61.6%	461,246	\$461,246
Hawks Nests	560,776	66.7%	476,660	\$476,660
North Bend	161,015	59.8%	136,863	\$136,863
Pipestem	553,052	61.7%	470,094	\$470,094
Twin Falls	603,587	40.2%	513,049	\$513,049
Tygart Lake	192,832	90.8%	163,907	\$163,907
Totals	3,490,251	-----	2,966,714	\$2,966,714

RECOMMENDATIONS:

- 1) *The Performance Evaluation and Research Division recommends that the state park system require by administrative policy that all resort parks be completely self-sufficient. A per person admissions fee should be established at resort parks to accomplish the goal of self-sufficiency.*
- 2) *To facilitate the goal of self-sufficiency at resort parks, the Legislature should enact legislation to allow the Department of Natural Resources to provide resort park superintendents and staff merit bonuses based on the profitability of their resort park.*

ISSUE 3: State Park Foundations

Most state parks have charitable foundations that raise funds to assist the state in improving their area park. Currently, there are 25 local park foundations incorporated under West Virginia law. Twenty of these foundations are considered active, while the remaining five are inactive. Since 1990, the state park system created a matching grant program with the foundations in which over \$100,000 in matching funds have been spent towards improving the park system. Overall, within the last five years, state park foundations have contributed over \$730,000 (see Table 1) in projects and equipment to the state park system, however the Blennerhassett Historical Foundation accounts for 73% of this figure or approximately \$550,000. The involvement of these foundations, especially the Blennerhassett Historical Foundation, in the improvement of the state park system should be commended. However, the state park system needs to tap further into this potential source of revenue. It needs to continue its level of cooperation with the highly active foundations and devise a way to increase activity in the less active and non-active foundations. The state park system also needs to help create foundations at the parks, forests and wildlife management areas where no foundations exist.

TABLE 1: Annual Foundation Contributions and Matching Grants, FY 1990-1994

FISCAL YEAR	FOUNDATION CONTRIBUTIONS	MATCHING GRANTS
1990	\$101,048	\$39,384
1991	120,349	0
1992	206,999	11,287
1993	203,058	30,241
1994	98,866	22,826
TOTAL	730,321	103,739

In addition to regional foundations, a state-level park foundation could potentially raise substantial revenues for the park system. This concept has been considered over the years, and implementation of a state foundation was mentioned in a fiscal year 1992 annual report. However, no progress has been made to established a state park foundation.

A state foundation to serve the state park system as a whole is an idea that should be pursued. The state foundation would be separate from the local foundations and would be responsible for attracting large private sector grants. Such a foundation, if done properly, would become a formidable source of private funding for the state park system and reduce its reliance

on the State General fund, thereby making it more self-sufficient.

RECOMMENDATIONS:

- 1) *The Director of the Division of Natural Resources should provide leadership to stimulate the level of activity with regards to state park foundations.*
- 2) *The Director of the Division of Natural Resources should dedicate the necessary resources to create and implement a state parks system foundation.*

ISSUE 4: The State Operated Restaurant At Grave Creek Mound State Park Competes Unnecessarily With The Private Sector

Restaurant service is appropriate for the state to provide when restaurants are an integral part of providing a public good, such as a park. Many of the state's parks are in remote areas and have overnight visitors. In these cases, restaurants are intrinsic to the enjoyment of the park. When a restaurant is not an intrinsic part of a park, a restaurant should be concessioned to a private vendor.

The state park system has fifteen restaurants. Concessionaires operate eleven restaurants and the state operates the remaining four, including the one at Grave Creek Mound. The characteristics of the Grave Creek Mound park do not justify a state operated restaurant. Grave Creek park is located in downtown Moundsville, and it is a day-use park. The other three state operated restaurants are located at parks in remote areas that have overnight facilities such as lodges or cabins.

In a sense, the state is appropriating taxpayer dollars to provide a restaurant in Moundsville. Moreover, the restaurant unnecessarily puts the state in direct competition with the private sector. To eliminate this inappropriate arrangement, the restaurant should be concessioned to a private vendor. This would also offer savings to the state because operating expenditures of the restaurant usually exceed operating revenue.

RECOMMENDATION:

The restaurant at Grave Creek State Park should be concessioned to a private vendor.

ISSUE 5: \$2.1 Million Unpaid Obligations for the Parks System as of November 30, 1994

We reviewed the budgetary re-allocation between the former Division of Tourism and Parks and the Division of Natural Resources, and we could not determine a logical basis for this fund split using the State Auditors status reports. Based on financial information provided by the Division of Natural Resources, there were unpaid obligations in the Parks Operating Fund as of November 30, 1994 in the amount of \$2.1 million dollars. The cash balance in the fund was \$1.3 million dollars as of the same date. We discussed these balances with the Division of Tourism staff and they indicated that the FIMS system was used as a cash balance/accounts payables, when there was enough cash in the Auditor's system invoices would be processed. This imbalance resulted from a cash flow problem which occurred in fiscal year 1990.

Based on memorandums from Tourism, the cash flow problem was related to a decision to begin construction of a \$1.1 million dollar marina facility at Stonewall Jackson Lake before funding was secured. The financing for the project was to be provided through a lease-purchase agreement. The project was released for construction in March 1990 before the lease-purchase agreement was finalized. Ultimately, the lease-purchase agreement never materialized. As a result, the \$1.1 million cost for the project was borrowed from the Division of Tourism and Parks operating funds and lottery proceeds. The debt incurred for this project has been carried forward each fiscal year since fiscal year 1990. In essence, the Division of Tourism and Parks has used a shell game scheme to balance the books since 1990, by using one fiscal years appropriations to pay for the previous fiscal year's debt. Without immediate action, the Parks section will finish FY 1995 with a \$1.1 million deficit, as occurred in FY 1990, 1991, 1992, 1993, and 1994.

RECOMMENDATION:

The Performance Evaluation and Research Division recommends that the Division of Natural Resources, which was given authority over the Parks section as of November 1, 1994, determine the correctness of these outstanding balances, and develop a budget proposal that will suffice the Parks System to the end of the fiscal year. DNR's budget proposal be submitted to the House and Senate Committees on Government Organizations and to the House and Senate Finance Committees by February 1, 1995.

ISSUE AREA 1: There Are No Objective Guidelines for Staffing of the State Park System.

The state park system mission is the stewardship of the state's parks. Stewardship is the care and upkeep of the parks by staff. In order to carry out this mission in the most efficient and effective manner, objective guidelines to make staffing decisions need to be used by the park system.

Presently There Are No Staffing Guidelines

The state park system presently does not have objective guidelines to use in determining staffing levels needed for park operations. Instead, the park system makes staffing decisions based upon subjective methods. Every five years, each park superintendent submits to the system director three possible staffing levels: optimal staffing, minimal staffing, and current staffing. The central office then reviews these requests to determine how to allocate the park staff.

Given that state parks employ over 1,000 people, objective guidelines are necessary for proper management of the state park system, including determining where the system is overstaffed or understaffed. The danger of overstaffing is that the state park system will waste funds on unnecessary positions. Conversely, the danger of understaffing is that with insufficient staff resources the condition of facilities and the quality of service would deteriorate, causing a decline in visitor satisfaction and attendance which could decrease revenues. Given that one of the objectives of the park system is to be partially self-supporting, inappropriate staffing levels directly impact the ability of the park system to limit the amount of money used from the general fund necessary for its operations.

The Legislature's Performance Evaluation and Research Division believes that objective staffing guidelines would assist the state park system in better identifying its staffing needs for the future. This would assist the state park system when making its budget requests for the future fiscal years and also assist the Legislature in judging the appropriateness of the budget requests.

Although objective staffing guidelines are needed; they do not have to be rigid. Instead they should indicate staffing needs within the state park system. Such guidelines should be based on a combination of factors, some of which are common to all facilities within the state park system. The factors which the Performance Evaluation and Research Division believe need to include in calculating staffing standards are:

- **Park attendance;**
- **Square footage of finished facilities (i.e., lodges and cabins);**
- **Type of facility (i.e., tramways and water treatment plants versus picnic shelters and campgrounds);**
- **Customer volume of restaurants;**
- **Non-forested landscaped acreage;**
- **Maintained walkways, paths, or trails; and,**

- **Forested acreage.**

Attendance should be linked to staffing because the more a park is used, the more it needs to be maintained in order to keep it operable.

Square footage of finished facilities should be taken in consideration because the more square footage of facilities present at a park, the more staff will be needed to maintain those facilities.

The **type of facility** will affect the level of staffing because some facilities must be staffed for as long as that facility is in operation, such as a water treatment plant, while other facilities do not require constant staffing, such as a picnic shelter.

Customer volume of restaurants operated by the state park system should affect the level of staffing within those restaurants because the higher the customer volume is, the more staff you will need to efficiently and effectively operate those restaurants. The opposite holds true if customer volume is low, then less staff will be required to efficiently operate those restaurants.

Non-forested, landscaped acreage must also be considered in the level of staffing because the more acreage that must be mowed or tended to in some manner, the more staff will be needed to carry-out those duties.

The **distance of walkways, paths and trails** should be considered in the level of staffing because the more miles of walkways, paths and trails that must be serviced, the more staff will be needed to maintain those walkways, paths and trails.

Forested acreage needs to be considered in the level of staffing because of law enforcement. The more square forested acreage a park has, the more time required to effectively patrol it.

Analysis of Park System's Present Staffing Levels

In order to examine whether the park system staffing decisions have been made logically (even though no formal written staffing guidelines exist), the Legislature's Performance Evaluation and Research Division conducted a regression analysis of the park system staffing patterns. This analysis examined whether there was a relationship between the number of staff members (FTEs)¹ at each facility managed by the park system, including state forests and wildlife management areas, and the following independent variables: park attendance; square footage of

¹ Hourly positions were converted into full-time equivalent positions by combing the number of hours each hourly employee worked at a park and dividing this total hours of non-permanent employees for each park by 2,080 hours.

finished facilities; non-forested acreage; and total acreage. Staffing patterns for fiscal years 1990-91, 1991-92, 1992-93, and 1993-94 were examined.

The analysis conducted by the Performance Evaluation and Research Division found that since the park system's staffing level is unrelated to two of the four examined factors (acreage, non-forested acreage) for all five years examined, and is unrelated to attendance since 1992-93.² Staffing for the parks was only related to square footage of facilities for all four years. However for state forests, staffing level was related to acreage and facilities for all years examined. As for wildlife management areas operated by the park system, staffing was related to square footage of facilities, but not to total acreage, non-forested acreage, or attendance.

The results of the regression analysis in total shows that system-wide staffing decisions have not been related to attendance, non-forested acreage, or total acreage.³ Therefore, the Performance Evaluation and Research Division believes that the park system needs to examine its staffing level at each park after developing a rational staffing policy based upon such factors as: park attendance; square footage of finished facilities (i.e., lodges and cabins); type of facility (i.e., tramways and water treatment plants versus picnic shelters and campgrounds); customer volume of restaurants; non-forested landscaped acreage; maintained walkways, paths, or trails; and, forested acreage, or others found relevant by state parks system officials.

Conclusion

In the case of staff reductions or increases, objective staffing guidelines would help the state park system in determining where the least critical places would be to reduce or the most critical places to increase staff within its organization. Objective staffing guidelines would also make the state park system more accountable to the Legislature and other outside authorities because of the lack of agency bias that such guidelines would have.

RECOMMENDATION 1:

The Director of the Division of Natural Resources should require the state park system to develop and implement objective staffing guidelines by July 1, 1995. These guidelines should be presented to the Joint Committee on Government Operations by July 15, 1995.

² It should be noted that the park system's attendance figure are most likely inaccurate (see Issue Area 2).

³ Due to the number of operations in the park system (55), the results of the regression analysis are merely suggestive.

ISSUE AREA 2: The Current Formula for Estimating Attendance at State Parks Is Flawed.

The attendance formula used by the state parks system is statistically flawed, and thus, does not accurately estimate attendance. Critical consequences may result since important decisions are made by the state park system based on these attendance figures. Decisions based at least partially upon attendance figures include:

- The establishment of operating schedules and seasons for day use parks;
- As a basis for studies of potential park entrance fee revenue;
- The construction of new facilities; and,
- Allocations of supplies.

Therefore, it is important that accurate attendance figures are used for the park system.

Presently the state parks system uses a four step method to estimate park attendance. This method, explained verbatim in TABLE 1, relies upon an estimation of the average number of individuals who enter the park in in-state vehicles and an estimation of the average number of individuals in out-of-state vehicles. These estimations are based upon head counts conducted by park employees as cars drive through the park entrances, one day each quarter.

Given the concern with inaccurate attendance figures, the Legislature's Performance Evaluation and Research Division requested the former chairman of the Statistics and Computer Science Department at West Virginia University to examine the parks system's attendance formula. According the WVU official, the method is statistically flawed in a number of areas. First, attendance figures would be overestimated if a weekend day or holiday were used in a quarter as the "head count day". In addition, the attendance figures would be underestimated if a week day were used during the quarterly survey. Second, basing attendance merely upon the number of people entering and leaving a park would underestimate attendance in parks where visitors can stay overnight, since some people may rent a cabin for a night or even a week and never leave the park. Finally, the attendance surveys that determine the ratios that are used with the monthly axle-count data (see TABLE 1 below for an explanation), are not collected often enough to give a reliable survey sample.

TABLE 1

Method the Division of Parks Uses
to Calculate Monthly Attendance Figures at Each Park

- 1) Each park uses mechanical traffic counters to obtain a daily count of vehicles entering the park.
- 2) In order to estimate the average number of visitors in each vehicle and in-state versus out-of-state visitors, each park uses the following estimation process:
 - a) Each park superintendent picks one random day in the months of March, June, September, and December. They are encouraged although not required to conduct these counts on differing types of days, i.e. weekend day, week day, holiday, etc.
 - b) On these four days, a park employee is stationed near the park entrance and, without stopping the vehicles:
 - i) Determines whether the vehicle is a visitor's vehicle, an employee vehicle, or a service vehicle.
 - ii) If it is a visitor's vehicle, determine whether it is an in-state or out-of-state vehicle.
 - iii) The number of visitors in each vehicle is determined.
 - c) Using these survey results, calculate for each day, the average number of in-state passengers in a vehicle by dividing the total number of in-state visitors by the total number of in-state vehicles.
 - d) Calculate for each day, the average number of out-of-state passengers in a vehicle by dividing the total number of out-of-state visitors by the total number of out-of-state vehicles.
- 3) At the end of each month, individual park superintendents calculate the total visitors per month by taking the total monthly count from their mechanical traffic counters, less the estimated number of service and employee vehicles, times the average number of visitors per vehicle (as revealed by the four random count days).
- 4) The average number of passengers in in-state and out-of-state vehicles for the days sampled is used with the traffic counter figures as a multiplier to obtain total in-state and out-of-state attendance.

The current attendance formula was created by people not qualified in the field of statistics and not reviewed by an expert statistician for statistical soundness prior to its implementation by the state park system. More accurate attendance figures would give the Parks Division better information for decision-making, e.g., allocation of resources.

RECOMMENDATION 2:

The Director of the Division of Natural Resources should require the state parks system to work with the Statistics and Computer Science Department at West Virginia University to create a statistically sound formula for calculating park attendance. The new formula should be provided to the Joint Committee on Government Operations by April 1, 1995.