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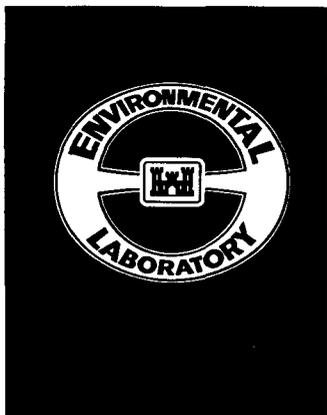
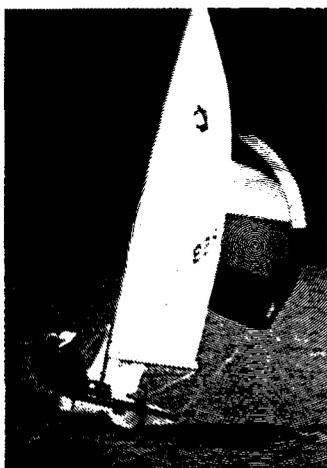
RECNOTES

RECREATION
RESEARCH
PROGRAM

VOL R-84-1

INFORMATION EXCHANGE BULLETIN

JAN 1984



Corps ranger explaining rules for safe use of a recreation area

CORPS PARK RANGERS' AND TECHNICIANS' PERCEPTIONS OF THE VISITOR ASSISTANCE PROGRAM

Lester Wadzinski

Operations Division, Rock Island District

In order to provide safe and healthful recreation opportunities for the public at Corps-operated recreation areas, Corps rangers are authorized to enforce Chapter III, Title 36, CFR under policies set forth in the Visitor Assistance Program. These rangers are in a unique situation in that they do not have the authority normally associated with conventional law enforcement officers of other Federal land-management agencies. Corps rangers do not have the authority to carry weapons or to arrest or physically detain the public, but they do have the

authority to issue citations for violations of Title 36. In addition, each Corps District has the option of using a law-enforcement service contract to augment the Visitor Assistance Program.

While several studies have addressed various aspects of the Visitor Assistance Program, none has gone to the rangers to solicit their views of the program. A study by the author has attempted to determine the rangers' perceptions of the Visitor Assistance Program. The purpose was not to determine the effectiveness of the

Visitor Assistance Program. The reader is cautioned that the rangers' perceptions may not necessarily indicate the actual situation. However, it was felt that, as those closest to the enforcement of Title 36, the rangers could provide some valuable insight into various aspects of the program.

Five hundred questionnaires were mailed to a randomly selected, nationwide sample of citation-authorized rangers and park technicians. Anonymity of the respondents was guaranteed, and only responses from persons with more than one year of experience with citation authority were incorporated into the study. The response yielded 380 usable returns. Chi square and descriptive analyses were used to analyze the resulting data.

Participants were asked if they felt the public experienced a visit that is potentially safe from crime or potentially unsafe from crime at that particular project. They were also asked how strongly they felt about their answer and why. Since the use of a law-enforcement service contract was the only common variable involved in this study, respondents were asked to indicate whether or not they had such a contract for all or part of their project.

Results indicated that a majority of respondents, 67%, felt that the visitor is offered a safe visit and 33% felt the visitor is not offered a safe visit. Almost all the rangers very definitely felt one way or the other. Ninety-seven percent indicated they felt "very strongly" to "fairly strongly" about their response.

The relationship between participant response and the use of a law-enforcement service contract was studied but revealed no usable data. Lack of uniformity in contracting procedures and multi-variables such as facility design or type of clientele as well as lack of precontract data prevented a

valid comparative analysis from being made on this question.

The responses to the questions that asked the rangers to explain why they felt the way they did yielded a variety of reasons. This was an open-ended question that gave participants an opportunity to comment freely on any issue they felt compelled to address. No one answer yielded overwhelming agreement, but such is the nature of open-ended questions where respondents are not given a choice or reminded of possible answers.

Respondents who perceived that the public experienced a safe visit cited law-enforcement service contracts, maximum use of the Visitor Assistance Program, a well-behaved clientele, and entry control most often as reasons for a safe visit. Some of these respondents also voiced concerns about certain policies of the Visitor Assistance Program.

Respondents who felt that visitors were not safe pointed at lack of authority and training for rangers, problems with law-enforcement service contractors, problems created by a police image, and a rough clientele as reasons for unsafe visits. A number of these respondents also commented in support of the Visitors Assistance Program policy that allowed law-enforcement service contracts.

Overall, participants' comments indicated that law-enforcement service contracts were supported by 35% of the rangers, 25% desired more authority and training in conventional law enforcement techniques, and 22% supported maximum use of Visitor Assistance Program policies. Many, many other comments were voiced indicating the complexity of the issues at hand. A summary of comments by all rangers surveyed is indicated in Table 1.

Table 1. Summary of Comments by All Rangers Surveyed

<i>Comments</i>	<i>Frequency of Response, f</i>	<i>percentage*</i>
Law-enforcement service contracts supported	133	(35)
Desire more authority or training in conventional law-enforcement techniques	95	(25)
Maximum use of the Visitor Assistance Program supported	82	(22)
Low-crime area and well-behaved clientele responsible for a safe visit	77	(20)
Having problems with effectiveness of law-enforcement service contract	60	(16)
Having problems due to police image created by badge, uniform, and vehicle equipment	46	(12)
Fee booth or entry control responsible for a safe visit	37	(10)
High-crime area or rough clientele responsible for an unsafe visit	31	(8)
Having problems with effectiveness of noncontract local law-enforcement agency	28	(7)
Desire more rangers	18	(5)
Professional job by rangers responsible for safe visit	15	(4)
Visitor Assistance Program and Title 36 adequate	13	(3)
Public's awareness of limitations of Visitor Assistance Program is responsible for an unsafe visit	10	(3)
Feel Visitor Assistance Program is inadequate without law-enforcement service contract	10	(3)
Other	119	(31)

* Percentages do not total 100 percent since multiple responses were possible.

One final statistic resulted from this survey. Approximately one-half of the 380 responders voiced some concerns about the effectiveness of the Visitor Assistance Program. Conversely, approximately one-half indicated no concern about the effectiveness of the Visitor Assistance Program.

It is felt this research accomplished the stated purpose of identifying how rangers feel about the Visitor Assistance Program. But as with all research new questions were raised: Are these perceptions a true indication of the visitor's actual safety? Do law-enforcement service contracts provide the visitor with a safer experience? How do these statistics stack up against opinions of resource management personnel in other Federal land-management agencies? Can any conclusions be drawn from the fact that one-half of the rangers surveyed indicated no concerns about the Visitor Assistance Program and one-half did voice concerns?

The data cited in this survey indicate that, from the ranger's point of view, there are some definite pros and definite cons concerning the Visitor Assistance Program. The results of this survey have caused some important questions to be raised. It is suggested that these questions be studied further to be sure beyond a doubt that the visitor is indeed offered the "safe and healthful recreation opportunities" as stated in ER 1130-2-420.

Additional information about this study can be obtained from Lester Wadzinski, Recreation-Resource Management Branch, Clock Tower Building, Rock Island, Illinois 61201, 309/788-6361 ext 6360.

Editor's Note: This article is a synopsis of a thesis prepared by Lester Wadzinski, Rock Island District, as partial fulfillment for a Master of Science degree. The study was conducted in association with the Recreation Research Program work unit entitled "Recreation Planning, Design, and Management for Visitor Safety and Security."

MA AND PA ARE PARK CUSTODIANS AT LAKE RED ROCK

Charles L. Kennedy
Resource Manager, Lake Red Rock
Rock Island District

PROBLEM — What to do when costs of service contracts are up and efficiency is down?
Solution: The Park Custodian Program, an extension of the Ma-and-Pa Fee Collection system, was inaugurated at Lake Red Rock in 1981. The program has been highly successful and has had several important fringe benefits.

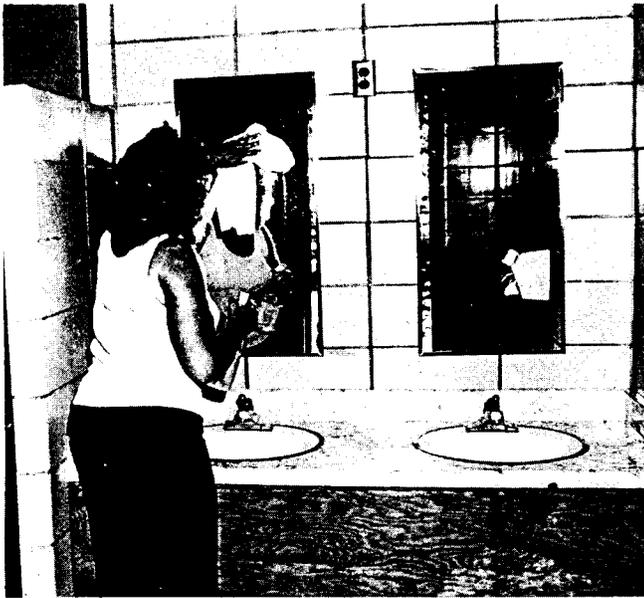
Before 1981 Lake Red Rock used conventional service contracts. Three medium-sized service contracts were let each year: one to clean shower buildings and comfort stations; one to clean vault toilets; and one for garbage pickup and disposal for all recreation areas. In addition, one person was hired to pick up litter.

Experience showed that these service contracts had a built-in opportunity for the contractor to cut costs by skimping on service wherever possible to increase the profit margin. Consequently, a strong inspection program had to be enforced to get adequate job performance. Disputes between contractors and project representatives were common, and the Park Manager and the Assistant Manager devoted several hours weekly to settling such controversies.

The Park Custodian Program was developed as a cost-effective means for obtaining improved services. Essentially, it is an extension of the Ma-and-Pa Fee Collector idea where retired persons are live-in gate attendants.

Each Park Custodian is assigned the responsibility for cleaning and garbage pickup for one or more recreation areas, depending upon the size of the areas and the amount of work involved. All necessary cleaning materials and supplies such as toilet paper are furnished to the custodian. The custodian collects filled plastic garbage bags from the campsites and deposits them in centrally located dumpster facilities. The dumpsters are emptied and the contents hauled to a landfill facility five times weekly by a separate commercial contractor.

A publicity campaign was started in late 1980 with flyers and bulletin board notices in all campgrounds announcing the availability of custodial jobs (contracts) for the 1981 season, along with the conditions of the contracts. Each custodian is required to live on site. He/she may not contract for more than one custodial job and may not hold custodial and fee-collection jobs simultaneously since both jobs require maximum efforts during the same time periods. Bidding for the contracts has been very competitive.



Ma and Pa share chores in contract under Park Custodian Program

The campsites to be occupied by the custodians were located in places not visible from the fee collector's booth; this provided 24-hour-a-day security not available under the old system. During the fall and winter of 1980-81, five such campsites were constructed by project personnel. The sites contained full hookups for electricity, water, and sewage. A 6- by 12-foot metal storage building, constructed from material salvaged from excess vault toilet buildings, was also provided at each site.

A comparison of the annual costs of the two types of service contracts is given in the following tabulation (the 1983 costs include an additional area):

	<u>Year</u>	<u>Total Cost</u>
Conventional service contracts and associated costs	1980	\$90,580
Park Custodial Program (contracts, garbage pickup, and materials furnished)	1981	48,990
	1982	41,550
	1983	47,320

The cost of construction of the five campsites for the custodians, which was about \$2000 each for materials and labor, was not included in the cost comparisons. Since this is a capital investment that can be amortized over a period of 10 or 20 years, the total additional cost would be insignificant.

The disadvantages associated with the program are minor compared to the former system. Early advertisement of bids is essential. Since the number of contractors is increased, there is more paperwork involved with bids and monthly contractor payments. An initial orientation and contractor-training period must be held at the start of each

recreation season. Frequent inspections are necessary for new contractors until they become familiar with the requirements of the job. If it becomes necessary, replacement of individual contractors is easily accomplished because the amount of each contract is low enough to be covered by a purchase order.

A fringe benefit of the program is the ability of the custodians to close portions of camping areas during periods of light use, producing substantial savings in energy, water, and maintenance. Up to six shower buildings and 180 campsites are now routinely taken out of service by the custodians from Monday morning until Friday afternoon during non-holiday weeks. The facilities are put back into service as camping demand increases. Monetary savings are substantial although hard to quantify. Some of the areas where savings occur are electricity for lighting and hot-water heaters, garbage and litter pickup, shower building and toilet clean up, and lightened patrol responsibility.

The total 1980 costs for servicing the recreation areas at Lake Red Rock were cut by more than 50 percent during 1982 and 1983 (cost adjusted for additional site) through use of the Park Custodian Program. This cost reduction is even more impressive because it occurred at a time of inflation-caused cost increases. In addition, the cleanliness of the areas has increased dramatically since there is no financial incentive to cut corners on materials and service. Each custodian looks on an area as "his or her area" and tries to keep it in the best condition possible.



Use of a visitor survey technique, described in the following article, can be part of management decisions on the level of certain recreation services or facilities such as the playground shown above. Playgrounds were quite important to visitors at highly developed recreation areas but were not considered important by visitors to the least developed areas

IMPORTANCE/PERFORMANCE ANALYSIS OF FACILITIES AND SERVICES AT TWO ARKANSAS PROJECTS

*Allan S. Mills**

SYNOPSIS — The importance/performance technique was originally developed by market researchers as a method of analyzing how consumers perceived a product. This technique has been applied at Corps recreation area test sites and may prove valuable in assisting in management decisions on whether to increase or decrease certain recreation facilities or services.

In the summer of 1982, a visitor survey was completed at two Arkansas projects to investigate the impact of scale of development of lake recreation areas on the satisfaction of visitors to those areas. The research question was, "Can economies of scale be implemented in the planning and management of Corps recreation areas without negatively impacting visitor satisfaction?"

Data were collected from visitors at recreation areas at Lake Ouachita, located in west-central Arkansas in the Vicksburg District, and at Greers Ferry Lake, located in north-central Arkansas in the Little Rock District. Sampling time was evenly distributed between four types of visitor groups at

the areas: picnickers, campers, swimming beach users, and boat launch ramp users. Visitors were interviewed on an equal number of days at each of the 30 Corps recreation areas situated on these two lakes. The recreation areas were classified for this study in terms of level of development. The most developed recreation area type had a paved access road and/or boat ramp, a sanitary dump station, one or more flush toilets, shower facilities, and electrical hookups in the campground. The least developed type of recreation area had none of these things.

Respondents indicated how important twelve selected facilities and services (listed in Table 1) were to them when visiting recreation areas. They also rated the performance of each of the facilities or services from "fails" to "excellent." These data were used for an importance/performance analysis.

* Mills was a Recreation Resource Specialist assigned to the Environmental Laboratory under an Intergovernmental Personnel Act Agreement with Texas A&M University.

Table 1. Mean Importance/Performance Rating Results Compared by Recreation Area Development Extremes and Types of Users

Facilities and Services	Graph Quadrants For Importance/Performance Ratings*						
	Overall Ratings	Least Developed Areas	Most Developed Areas	Campers	Swimmers	Boaters	Picnickers
1. Campground Clearing	A	B	A	A	B	A	B
2. Paved Roads	B	A/D**	B	B	B	B	B
3. Security Patrols	B	B	B	B	B	B	B
4. Clean Restrooms	B	B	B	B	B	B	B
5. Store	†	C	A	†	B	B	A/B**
6. Flush Toilets	B/C**	C	B	C	B	C	B
7. Playgrounds	†	D	B	C/D**	B	B	B
8. Showers	C	D	B	C	C	C	C
9. Paved Trails	D	D	A	D	A	A	A
10. Visitor Information Center	†	D	B	D	A/B**	A	B
11. Electrical Hookups	D	D	B	D	C	†	B
12. Laundry Facilities	D	D	D	D	D	D	D

* Graph quadrants are described in Figure 1.

** Points for these facility and service items were not exclusively within either of the two quadrants indicated for each.

† Points for these items were so near the center point of the graph that it was not possible to confidently assign them to any one quadrant.

Importance/performance analysis was originally developed by market researchers as a method of analyzing how consumers perceive a product (Martilla and James 1977). Results are presented as a graphical two-dimensional plot divided into four quadrants in which each item can be located as a graph point (Figure 1).

If both importance to the visitor and performance of a particular facility or service are rated high, the interpretation is "keep up the good work." If importance to the visitor is rated high but performance of the area is rated low, the interpretation is "concentrate (your resources) here." If both importance and performance are rated low, the interpretation is that the particular facility or service is "low priority" because any change is not likely to impact visitor satisfaction one way or another. If importance is rated low but performance is rated high, the interpretation is "possible overkill." That is, management could probably reduce the amount of money allocated to providing the facility or service without decreasing the satisfaction of most visitors.

Camp clearing was in the "possible overkill" area of the graph, quadrant A (Figure 1). Mean visitor importance ratings for this service were relatively low, while agency performance in providing it was rated relatively high. This indicates that cutbacks could possibly be made in such things as mowing and clearing brush between campsites.

Paved roads, security patrols, and restroom cleanliness were in the "keep up the good work" area of the graph, quadrant B. This indicates that overall these two projects are doing a good job of providing these facilities and services and should continue to do so.

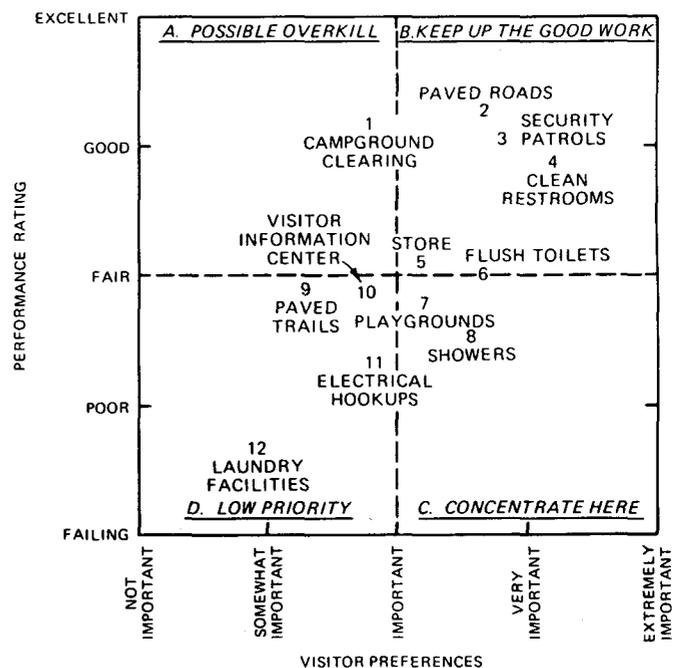


Figure 1. Facilities and service performance ratings versus importance to visitors (numbers on graph are keyed to numbers in Table 1)

The showers item was clearly situated in the "concentrate here" area of the graph, quadrant C. The mean importance rating for this facility was relatively high, while agency performance in providing it was rated relatively low. Therefore, it may be appropriate to allocate more resources to this type of development to better satisfy visitors.

Paved trails, electrical hookups, and laundry facilities were in the "low priority" area of the graph, quadrant D. Mean visitor importance ratings for these things were relatively low, and agency performance in providing them was also rated low. Because importance ratings are low, there is no cause for alarm that agency performance is low. Increases in development of these facilities would probably not increase visitor satisfaction.

Management implications of the graphical locations of the remaining facilities and services items in Figure 1 are not clear. The flush toilets point was on the line between "keep up the good work" and "concentrate here." Therefore it could not be assigned exclusively to either of these quadrants. Store, playground, and visitor information facilities were plotted close to the center point of the graph and therefore could not confidently be assigned to any one quadrant.

Further meaningful differences in graphical plot locations were found when data for different types of recreation areas and different types of visitors were compared (Table 1). For the least-developed recreation areas, none of the twelve facilities and services was exclusively situated in quadrant A (overkill), and only three of these items were plotted in quadrant B (keep up the good work). For the most-developed areas, however, eight of the twelve facilities and services were plotted in the "keep up the good work" quadrant and three were in the "overkill" quadrant. The three overkill items were campground clearing, store, and paved trails. Thus, for the most highly developed recreation areas, cutbacks could probably be made in all of these without reducing overall visitor satisfaction.

Table 1 also shows that data from different types of visitors produced different importance/performance plots for some of the twelve facilities and activities. Campground clearing was in the "overkill" quadrant for campers and boaters, but in the "keep up the good work" quadrant for swimmers and picnickers. Whereas flush toilets were plotted in the "keep up the good work" quadrant by swimmers and picnickers, the importance/performance plot for boaters and campers was in the "concentrate here" quadrant. Paved trails importance/performance plots for swimmers, boaters, and picnickers were in the

"possible overkill" quadrant, but this was not the case for campers (quadrant D, "low priority"). Similarly, electrical hookups were plotted in the "low priority" quadrant for campers.* This differed from a "concentrate here" electrical hookups plot for swimmers and a "keep up the good work" plot for picnickers. Visitor information centers were placed in the "keep up the good work" quadrant by picnickers, but in the "overkill" quadrant by boaters and "low priority" quadrant by campers.

In general these results indicate types of facilities that might be eliminated, decreased, or emphasized in future plans. For example, mowing and other clearing of vegetation around campgrounds could probably be reduced in highly developed recreation areas not heavily visited by swimmers or picnickers. For one item, laundry facilities, importance/performance plots were consistently in the "low priority" quadrant for all types of recreation areas, as well as for all four different types of users. Thus, laundry facilities should probably not be planned for recreation areas at the two projects studied.

These kinds of results and conclusions must be put in proper perspective. Many other kinds of facilities and services should perhaps also be assessed. Managerial considerations other than general user importance/performance ratings must also be taken into account when deciding whether or not to eliminate or cut back on certain facilities and services. Paved trails to improve access for handicapped picnickers would be one such consideration. Mowing and clearing brush around campgrounds for fire prevention would be another. Importance/performance analysis is simply presented as one type of useful tool for quantitatively assessing which kinds of cutbacks in facilities and services can be made without negatively impacting overall *visitor* satisfaction at project recreation areas.

REFERENCE

Martilla, J. A., and James, J. C. 1977. "Importance-Performance Analysis," *Journal of Marketing*, Vol. 41, American Association of Marketing, Chicago, Illinois, pp 77-79.

* EDITOR'S NOTE: All campers do not have the same needs for electrical hookups. The largest proportion of campers at these two projects were tent campers, and this may have influenced the importance rating for electrical hookups. Table 1 indicates that in the well-developed areas, where electricity is available, a "keep up the good work" was indicated for electrical hookups.

STATE RECREATION PLANNERS NOW ORGANIZED

Recreation planners from 32 states organized the **National Association of State Recreation Planners** at a meeting in Arlington, Virginia, early in 1983. The group's objectives include exchanging planning techniques and ideas, promoting professional growth, advocating recreation planning, and monitoring developments in the field of recreation. Membership is open to persons employed in comprehensive planning for outdoor recreation at the statewide level and to persons or entities engaged in related activities.

The organization just issued its second newsletter and is making plans for the 1984 annual conference, which will be held in the spring in Atlanta. More information about the Association, including membership applications, may be obtained from:

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RECREATION RESEARCH PROGRAM

This bulletin is published in accordance with AR 310-2. It has been prepared and distributed as one of the information dissemination functions of the Environmental Laboratory of the Waterways Experiment Station. It is primarily intended to be a forum whereby information pertaining to and resulting from the Corps of Engineers' nationwide Recreation Research Program can be rapidly and widely disseminated to OCE and Division, District, and project offices as well as to other Federal agencies concerned with outdoor recreation. Local reproduction is authorized to satisfy additional requirements. Contributions of notes, news, reviews, or any other types of information are solicited from all sources and will be considered for publication as long as they are relevant to the theme of the Recreation Research Program, i. e., to improve the effectiveness and efficiency of the Corps in providing recreation opportunity at its water resource development projects. This bulletin will be issued on an irregular basis as dictated by the quantity and importance of information to be disseminated. Communications are welcomed and should be addressed to the Environmental Laboratory, ATTN: A. J. Anderson, U.S. Army Engineer Waterways Experiment Station, P.O. Box 631, Vicksburg, Mississippi 39180, or call AC 601, 634-3657 (FTS 542-3657).

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