

We have found no evidence that the method of extrapolation devised by Overton and used here in a computer program, provides information which differs from that given by interviewing non-respondents. We acknowledge that this study does not provide a definitive test of the method but we feel that we do provide here one example where the question was examined and no important differences were found. It is to be hoped that others can make the same kind of test, to the end of accumulating a series of observations.

SUMMARY

1. Methods are described by which the unreported open deer kill in Tennessee has been estimated.
2. A comparison of results from interview of non-respondents, and use of the computer extrapolation method devised by Overton failed to reveal important or consistent differences between the two methods.

REFERENCES

- Abramson, Norman J. 1963. Distribution of California Angling Effort in 1961. *California Fish and Game*, 49(3):174-182.
- Chapman, D. G., W. S. Overton and A. L. Finkner. 1959. Methods of Estimating Dove Kill. Institute of Statistics, North Carolina State College, Mimeo Series No. 264, 1-48, A1-A14.

ONE SUCCESSFUL APPROACH TO IMPROVING AND MAINTAINING PUBLIC HUNTING ON INDUSTRIAL LANDS

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A B S T R A C T

It is recognized that there are a number of ways that industrial lands can be administered to develop the wildlife resources and at the same time provide a recreational opportunity for the public. Gulf States Paper explored a number of these possibilities and we fully realize what has worked successfully for us may not for other industries.

The Corporation was founded in 1884, in Marseilles, Illinois, by Herbert Eugene Westervelt. After 44 years of growth and expansion the home office was established in Tuscaloosa, Alabama. In the late 40's and early 50's improved conservation protective systems in Alabama began to show promising results in the rapid build up of game populations. Because of the unique nature of the Alabama trespass laws requiring that one obtain written permission to enter upon the lands of others, and the great increase in the numbers of people requesting this permission, the corporation was forced to employ a permit system. This system was standardized in that all requests were granted. Problems arose at a local level and the policy was changed allowing only bona fide county residents to hunt on Gulf States' land in his county of residence.

For nine years following this change nothing was done to accommodate the increasing numbers of urban hunters. In 1965, to accommodate these additional requests, a fee permit system was initiated. Annual fees for hunting were set up on the following basis: for a hunter who wanted to hunt small game only on Gulf States' land within the county of his residence—\$1.00; all game within the county of his residence—\$3.00; all game on 350,000 acres of Gulf States' land open to the public—\$10.00.

Following two years of this program the results have been highly successful. With reference to the permit system the corporation has

enjoyed a very satisfying degree of public relations, as well as being able to greatly intensify its forest game program. No repercussions of any consequence have been felt in the form of forest fires or other destruction that could be related to the fee permits. Recent acquisitions have brought the corporate holdings close to 400,000 acres that will be open to the public under the permit system. Circumstances in recent acquisitions have caused us to have lands under lease to hunting clubs. We now have five such areas ranging in size from 200 to 1,984 acres.

As indicated above, the corporate policy is set in maintaining and developing the greatest amount of ownership in twin crop management for public recreational use. The public is helping to pay their way — essentially investing in their own hunting future.

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It is recognized that there is a number of different ways that industrial lands can be administered to develop the wildlife resources and at the same time provide recreational opportunities for the public. Also, it is pointed out at this time that forest land-owning industries are recognizing the value of wildlife as a twin crop to timber and its responsibility to develop this natural resource. Gulf States Paper Corporation has explored several different methods and studied others to determine the best approach for its forest lands holdings to provide better hunting opportunities for the general public. The approach adopted and explained in this paper has been successfully initiated, and we feel today that it is our best approach to the problem of developing our wildlife resources and thus providing our public with the best hunting possible. It is also recognized what may work for us may not be best for other industrial landowners.

To give you a full picture of the conception and evaluation of this program, it is necessary to first give you some background information on the company, its ownership, management and present status in the industry.

The Company was founded by Herbert Eugene Westervelt in Marseilles, Illinois, in 1884. From this early beginning, where paper was manufactured from wheat straw, the company grew in manufacturing and sales capacity. During the period of early growth between 1884 and 1928, the corporation owned and operated 10 manufacturing or converting plants, including two in Louisiana. By the mid-1920's Mr. Westervelt disposed of all the operating plants then comprising the complex to construct a major pulp, paper and bag production facility in Tuscaloosa, Alabama. This facility in Tuscaloosa went into operation in the spring of 1929, beginning a land acquisition program in Alabama.

The period of growth between 1929 and 1956 saw the passing of two Company presidents. Following the death of our founder in 1928, his daughter, Mildred Westervelt Warner, took over the chief executive position in this family-owned corporation.

Mildred Warner served for seventeen years as president and was nationally recognized among the outstanding corporate chief executives of the nation.

In the late 1950's she relinquished the reins of leadership to her son, "Jack" Westervelt Warner, making him the third chief executive in our 83 years of corporate existence.

I have brought out a few facts about the history of our corporation to emphasize these points: We are a family-owned corporation with

no stock to sell in the open market, producing goods for sale at a profit, and plowing a good percentage of these profits back into lands, recreational facilities and hunting and fishing developments for the enjoyment of our friends — the general public. This has been the conservation philosophy handed down from our founder and is the objective now being employed by this company.

In the late 1940's and early 1950's Alabama's forest and game protective systems began to show promising results on our land. With the improved habitat conditions created by fire control and better forestry practices, game populations began to increase rapidly. Prior to this time, Gulf States had no established policy on issuing permits allowing hunters to use our lands. Because of the Alabama Trespass Laws requiring one to obtain written permission to enter upon lands of others, it became necessary for the company to establish policy on this matter. At first, a standardized system of issuing permits to all who requested was employed. In only a short while the local county hunters began to feel the invasion of outsiders on their territories. A public relations problem evolved at a local level and a policy change on this system was made. Employees were granted permission to hunt on company lands irrespective of the location, but all other permits issued were restricted in each county to bona fide county residents.

In 1951, Gulf States acquired an 8,000-acre tract of mixed bottom-land hardwood and pine-hardwood types situated along the Tombigbee River in Pickens County. This was quickly recognized by Vance Miles, Woodlands Manager, and Jim Owens, Chief Forester, as having every attribute of a fine management area. The area supported a good deer herd and the location and habitat conditions were very favorable. In due course, additional adjoining acreage was acquired bringing the total to 10,000 acres with approximately 12 miles of river frontage and no interior ownerships.

With the go ahead nod from our President, the area was set aside as a hunting preserve for employees, customers, suppliers, and friends and was dedicated to the memory of our late founder, Herbert Westervelt. The first season after acquiring the land, four organized deer hunts were instituted. Hunt dates were set up prior to the deer season allowing the employees on each shift at the Tuscaloosa plant a chance to apply for one of the hunt dates. The original plan was to have 40 employees and 40 guests from the customer, supplier-friend group. In only a short while experience taught us how many invitations to extend in order to get 40 from the latter group.

On the morning of the hunt, the hunters were moved by truck from the meeting place to their drawn numbered stands. All stands were numbered prior to the deer season at least 200 yards apart and all hunters were required by "rules of the hunt" not to move more than 25 feet away from their numbered stand under any circumstances. Buck shot was the only ammunition allowed, prohibiting all slugs and rifles. The only specifications that have since been changed are the number of hunts and a few more guests on each hunt, and as in the beginning, maximum safety prevails.

The deer drive itself was organized well in advance of the hunt date. The local deer hunters in Pickens County who wish to participate in the hunt are employed as drivers. Twenty to thirty of these drivers and no less than 75 deer hounds are divided into about 10 groups, each group leaving from a specified area and driving toward the standers. To insure maximum safety, drive lanes are constructed before the hunt and are painted bright yellow to warn the drivers that they are near standers.

Since the beginning of the organized hunts on Westervelt, the kill has averaged approximately one deer per ten hunt efforts, certainly high enough to keep the keen interest of our customers and local hunters.

In 1956 Gulf States Paper decided to intensify their program of multiple use management and employ a professional man to administer the game management aspects. Ray Redmond was hired as the first

Game Management Forester in the southern industry. He holds a BS degree in forestry and a MS in Game Management from L.S.U.

With the cooperation of the State Conservation Department, Redmond began an intense program of re-stocking other Gulf States Paper lands. Five areas ranging in size from 3,000 acres to 9,000 acres were closed to public hunting to allow deer and turkey populations to build up. Game food plots were established on these areas in an attempt to hold the deer and turkey until new home ranges were found, but mainly to show the public our interest in the area. Money was being spent in their locale, and although they could not yet hunt on these areas, they were well accepted.

In Bibb County a refuge was designed principally to provide deer hunts sponsored by local civic groups. On this refuge the Company is paid a small fee on a per-hunter basis for the hunting privilege. About 75 hunts are accommodated on each hunt with our Company laying the ground rules under which they operate.

In the early 1960's the Company began to consider a program that would benefit more hunters. Since the policy change in 1956, allowing only county residents to hunt on our lands, we had done nothing for the urban hunters in counties where we did not own land.

A committee was formed to explore the possibilities of charging for hunting and fishing privileges. The committee composed of key public relations, forestry and game management personnel agreed upon employing a fee permit system. This committee worked under the direction of Mr. Vance Miles and Mr. E. E. Loper, both of whom have headed up the Company's land management policy.

Needless to say, the committee gave much consideration to the question of liability. Insofar as experience has thus far demonstrated on this question, landowners who have in recent years embarked upon affirmative programs of public usage have not suffered any substantial damage claims arising from that policy. We feel that the calculated risk of liability is perhaps a small price to be paid for the many benefits to be mutually enjoyed both by Gulf States Paper as landowners, employees, and people using our lands under the new policy. The danger, at least to the present, seems to be more apparent than real.

The system was designed to give the general public an opportunity to belong to the largest hunting club in the State of Alabama. Annual fees for hunting were set up on the following basis: for a hunter who wants to hunt small game, rabbits, squirrel, etc., on Gulf States' land in the county of his residence, \$1.00; if he wants to hunt all game including deer and wild turkey in his county of residence, \$3.00; but if he wants the privilege of hunting all game on all Gulf States' land in Alabama, excluding the Game Preserves, the fee is \$10.00; this permit now covers approximately 400,000 acres in 20 counties. With the purchase of each permit, the hunter is given a map showing location of Gulf States lands in the county in which he wishes to hunt.

This fee permit system was initiated in the fall of 1965. The program was introduced very carefully to develop a full understanding and appreciation of the policy change. Press conferences were held with outdoor writers, radio announcers and television commentators explaining to them the reason for the policy changes. Thousands of letters, personal contacts, and local newspaper advertisements were used explaining to the general public that good hunting required considerable expense and these permits were going to finance a program to improve their hunting. Much of the success of this program thus far can be attributed to this introduction. The people were educated as to the reasons for the change; they not only accepted the program but accorded Gulf States Paper recognition for a public service in developing additional recreation for our growing public. It would be difficult to convey the important part the Conservation Department of Alabama has played in making this program a success. From the beginning cooperation has been superb — enforcement was stepped up not only by the Conservation Department but also by Gulf States Paper personnel.

As was expected, problems arose with the initiation of the system. The first year, complaints were mild, and no serious problems were encountered. In the anticipation of future problems, a questionnaire was sent out following the 1965 season to one out of every ten permit holders. The questionnaire read as follows:

The first hunting season of Gulf States Paper's expanded game management program has just come to an end. You and several thousand other hunters more than justified our feeling that sportsmen would be willing to invest in their own hunting future.

Now that the '65-66 season is closed, we'd like to know how you did and what you think of this first year of the Gulf States program. Won't you fill out this form and mail it back in the attached envelope?

1. Class of permit held: a. \$1.00 _____
b. 3.00 _____
c. 10.00 _____
2. If \$10 permit was issued, where did you hunt?
 - a. Home county _____
 - b. One county other than home _____ Please name _____
 - c. Two to five counties _____ Please name _____
 - d. More than five _____ Please name _____
 - e. Never used permit _____
3. What type of game did you hunt? (Check appropriate boxes and state or estimate number bagged.)
 - a. Deer _____
 - b. Turkey _____
 - c. Quail _____
 - d. Squirrel _____
 - e. Rabbit _____
 - f. Duck _____
 - g. Other (Name and Number)

4. Could you locate Gulf States lands easily? _____
 - a. Did you ask for Gulf States Paper hunting maps? _____
 - b. If so, were they helpful? _____
 - c. Were the lands adequately marked? _____
5. How did you learn of the Gulf States wildlife program? _____
6. Did you see sign of activity by Gulf States Game Management service (patrolling, game food plots, restocking, etc.)? _____
7. We'd like any comments or suggestions you could make _____

8. And finally, do you intend to purchase a 1966-67 permit? _____

The responses to the questionnaire were good. Thirty-three percent of the forms sent out were returned at least partially answered. The responses were summed up as follows and will not necessarily add up to 100%.

1. *Permit Classifications*

Forty-seven percent bought \$3.00 permits which allowed them to hunt all legal game in their resident county. Forty-three percent bought the \$10.00 permits which allowed them to hunt all legal game in all 20 counties in which the Company owns land. A relatively small number (only 11% bought \$1.00 permits which allow only the hunting of small game in the county of residence.

2. *Hunting Areas*

Thirty-one percent said they hunted only in the county of residence, 25% hunted in their county of residence plus one other county, and only 6% hunted in two to five counties. No one reported hunting in more than five counties, and 12% never used their permit,

and of this 12% several said they liked our program and they had purchased their permit as a means of aiding the program.

3. *Game Hunted*

Deer was the most popular animal hunted with 68% after him. Squirrel was second with 46%. Rabbit was next with 25%, and turkey 18%, quail 11%, and duck 6% followed. The respondents also reported killing fox, wildcats, raccoons, ground hogs, opossums, beaver, hawks, and rattlesnakes.

4. *Location of Land*

Seventy-two percent said yes, they could locate the land easily; 8% said No, and 5% said only fair. Sixty-nine percent said land was adequately marked, while 5% said it was not. Of 62% asking for maps of the Company's land, 46% said they were helpful, and 36% said they were not. Twenty-nine percent did not ask for maps.

5. *Source of Information on Program*

More people (25%) learned of the new game management program through newspaper than from any other source. The other sources were:

Friend	21%
Company employees	12%
Company brochure	8%
Last year's permit	5%
Hunting clubs	4%
Adjoining landowner	2%
Other	4%

6. *Game Management Activity*

Forty-five percent said they had seen signs of Game Management Service's activity, and 34% said they had not.

7. *Next Year's Permit*

A large majority (87%) of the respondents plan to purchase a 1966-67 permit. Two percent said they would not and 9% did not answer or were undecided.

Following the 1966 hunting season a major complaint was registered in the form of a petition signed by 108 residents of Marengo County. They were chiefly concerned with the invasion of outsiders on their territory. We felt the problem was "exaggerated," but the complaint was acknowledged at a meeting held in Marengo County. These residents were assured that enforcement would be greatly increased in this area in an effort to stop the illegal kill of deer.

Since the system was introduced in 1965, land acquisitions have increased the corporate holdings considerably. Another problem arises here in that these lands must enter some phase of the forest game program. Some of the areas were leased by former owners. On these type areas, the land simply does not enter the permit system until these leases expire. The areas are closed out as game preserves and held under the old management until the leases run out.

Acquisitions such as these have placed us into every possible phase of land management. We have lands leased to clubs, lands under management by the State, lands in Company Game Preserves, lands controlled by civic groups and lands open to the general public. Although we are involved in these various phases of land management, more than 90% of approximately 400,000 acres is being managed to provide better recreational opportunities for the general public.

Since the program was initiated in 1965 the Company has greatly intensified their game management activities. Work is now being done to improve waterfowl habitat as well as upland game. In Pickens County approximately 400 acres will be flooded this year in an effort to improve the local duck hunting in this area. Plans are now being made for a similar area in Sumter County within the next few years. In addition to the increases in management activities, new personnel has been added to the staff, bringing the total to five full-time employees devoted entirely to public recreation.

Although we are one of the smaller pulp and paper companies of the South, an effective public recreation program has been developed. At this time relatively few companies have developed such programs, but stand by, times are changing, the economic potentials of outdoor recreation are being recognized by others, particularly in hunting and fishing fees. If this potential will be incentive enough to create expanded recreational programs by others, the ever increasing demands of these recreationists can possibly be met in a much simpler way. We at Gulf States Paper are attempting to meet these demands in the ways that have been described in this paper. We have shown that outdoor recreation and pulp wood production definitely are compatible on the same lands.

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It is impossible to properly acknowledge the contributions made by those individuals who have been responsible for the development of the Gulf States Paper Corporation Wildlife Program, and making possible the information presented in this paper.

The author is indebted to our President, Mr. Jack Warner, Messrs. R. V. Miles, Jr., E. E. Loper, J. W. Owens, Jr., Frank Jones, Ted Hixon, Jim Montgomery, and others of the Company.

Gratitude is acknowledged for Ray Redmond, Chief Game Management Service, who has headed up the Company's Game Management Program since July 1956.

COOPERATION—THE KEY TO GAME MANAGEMENT

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The combined efforts of the Ouachita National Forest and the Oklahoma Department of Wildlife Conservation have greatly enhanced the huntable population of wildlife in southeastern Oklahoma. This is truly a cooperative effort and we believe the Key to Game Management. With a continuing program, southeastern Oklahoma should become a Sportsmen's Mecca, and not only will the sportsmen benefit, but people who enjoy watching and photographing wild animals and birds will have an area where they can pursue these pastimes. Also, the economic benefits to the surrounding area will be substantial.

The area included comprises 3 Districts of the Ouachita National Forest—Choctaw, Kiamichi, and Tiak—totaling approximately 238,000 acres. The Choctaw and Kiamichi Districts are typical mountain districts. The elevation varies from 2,660 feet on Rich Mountain to about 700 feet in the valleys. The Tiak is typical coastal plain with elevations running from 350 to 525 feet.

The deer population was sparse and illegal hunting was prevalent in southeastern Oklahoma. In view of this, in 1952 a cooperative agreement was signed by the Oklahoma Department of Wildlife Conservation and the Ouachita National Forest. This was the first step in bringing back the wildlife population of southeastern Oklahoma. An I&E program was developed to inform the public as to the value of wildlife. This was followed by setting up an intensive management area in 1956 called the Choctaw Game Management Area. This area totaled approximately 13,000 acres on the Choctaw District. The Department did development work such as ponds and openings with Pittman-Robertson Funds. The area was stocked with 347 deer during the period 1956 to 1963. In 1958, two additional areas were set aside and called the Rich Mountain Game Management Area on the Kiamichi District, containing approximately 12,960 acres, and the McCurtain County Deer Management Area of about 6,700 acres was set aside on the Tiak. The Rich Mountain Area was stocked with 373 deer from 1958 to 1963. Another 160 deer were released in the surrounding Forest area. On the Tiak, 404 deer were