spend at least part of their lives in this inshore environment. The continued existence of these game, fish and shellfish resources depend on it.

Many of the estuarine changes have been relatively small dredging and filling operations. Considered one by one they are minor, but combined they are affecting in some degree a very large part of our coastal waters. These minor and major projects have been authorized because they would not interfere with navigation, but little thought has been given to their effects on our natural resources.

In the maritime States you are familiar with the history of coastal agriculture attempting to compete with inland production; the concentrated dispersion of water from lakes and rivers into the estuaries; the drainage of prime fish and game habitats; the undetermined effects upon productivity of our coastal areas along the intracoastal waterway; or the invasion of salt water into once productive marshes and into ground water supplies.

I think we will all agree there are dangers ahead in the estuarine development. I believe you will also agree upon one premise, that considerably more biological information about estuaries and the things which live in them must be accumulated if intelligent solution to the problem is achieved.

LAW ENFORCEMENT SESSION

THE SELECTION AND TRAINING OF ENFORCEMENT PERSONNEL IN FLORIDA

By David Swindell.
Florida Game and Fresh Water Fish Commission

This paper is not being presented with the thought that we in Florida have discovered a new method of personnel selection, since I am sure that many states today are using a similar approach to the problem. The records of the three years during which time our program has been in operation reflect the success of the system and give many sidelights into our experiences however, and it is with this thought in mind that this presentation is made.

As an insight into the background of the program, mention should be made of the history of the Merit System adopted by the Commission. The Merit System was originally adopted in the closing days of an outgoing governor's administration but was suspended shortly thereafter as "unsuitable" by the Commissioners of the new administration. The same system was reinstated by these commissioners at the end of their tenure, however. When our present commissioners were appointed, a departure was made from the past pattern and the plan was endorsed. Through all these adoptions and suspensions the plan itself has remained essentially the same. It is doubtful that the Merit Plan will be subject to such an "on again, off again" treatment in the future, since public opinion in the state seems strongly behind the protection of capable public workers.

In 1955 the Florida Game and Fresh Water Fish Commission put into operation a method for the selection of new employees in accordance with the procedures established by a Commission designed and promulgated Merit System. This method, while geared primarily to the selection of enforcement personnel, has also been used to fill those vacancies in the game and fish management divisions which do not require specialized training or experience.

Prior to the adoption of the present method, vacancies in the above categories were filled by the department heads or intermediate supervisors by selections from a usually small group of applicants from the locality where the vacancy occurred. Oftentimes this resulted in relatively poor groups from which to choose and political sponsorship was the rule. Minimum education and maximum age were sometimes disregarded in order to fill a vacancy quickly. The new employee almost always was allowed to remain in his home community

since it was widely thought that an officer "had to know the county in order to do the job."

Under the presently used method for the selection of new employees, applicants must meet basic requirements of age, education, character, and physical condition in addition to making qualifying scores on written and oral examinations.

OUALIFICATIONS

In order to be eligible for employment, an applicant must be between the ages of twenty-one and thirty-six and have a continuous period of residence in the state of two years immediately preceding employment. He must possess a high school diploma or equivalent, or submit proof of the completion of the eleventh grade with at least two years of active military service. He must be of good character and capable of passing a rigid physical examination. All new employees are fingerprinted for verification of possible prior police record through the F.B.I.

A question might arise as to the advisability of the employment of men as young as twenty-one and, admittedly, some problems do arise in this connection. Perhaps the greatest of these is the youthful appearance of some men of this age and the possible exercise of poor judgment sometimes displayed by youth. We feel, however, that our oral interview technique will permit us to eliminate men of this type and, through the use of some twenty-one-year-olds, we are able to secure men who would oftentimes have entered some other line of work and have been lost to us if the age requirement were higher. Among the twenty-one, to twenty-three age group employed under the selective method, none has been dismissed as unsatisfactory to the Commission.

TESTING

Applications for employment are received at all times of the year and are screened to verify that minimum requirements are met. All persons having such requirements are notified of the date and place of an assembled examination which is held simultaneously at three places in the state.

Two written tests are used with minimum passing grade requirements but no additional advantage is allowed for grades higher than the minimum. Neither of these tests is geared to evaluate a man's knowledge of wildlife but to test his ability to learn and to reason. We feel that a man possessing these abilities, accompanied by a proper attitude, can be taught the necessary facts to fulfill the requirements of the job. It has been demonstrated that an emphasis on a knowledge of the subject can result in the selection of a man whose preconceived ideas are very difficult to change. There are few fields today which number as many self-styled "experts" as are present in the ranks of our hunters and fishermen.

Army General Classification Test, This test is a commercially published test originally designed to classify inductees during World War II according to "their ability to learn quickly the duties of a soldier." It was employed in testing 160,000 inductees, and a careful analysis was made of its accuracy and application. Correlations were made between AGCT scores and occupations for 125 different civilian occupations. The AGCT is suitable for adults having at least a fifth grade education and emphasizes verbal comprehension, quantitative reasoning, and spatial thinking. It is a multiple choice test using questions of vocabulary, arithmetic, and block counting which allows forty minutes for completion. It has the advantages of being a test which has minimum gain values on re-testing and scores seldom vary more than a few points on repeated tries. Due to the form of the test, cheating is almost impossible.

We use a score of 110 as a minimum on this test and are thereby selecting the upper 36% of the population. This score is considered to be the minimum for acceptance for enrollment in many colleges.

When first used, this test eliminated a good percentage of the applicants but the caliber of the persons applying has changed in recent years. A comparison of groups examined since 1956 with the AGCT representative sample shows them to be markedly above average.

Table I
Comparison AGCT Representative Samples

Rep. S	ample						
Army Inductees		Representative Sample—Employment Applicants					
Grade	% Scoring	April, 56	July, 56	Sept., 56	Jan., 57	May, 57	July, 57
41- 59	10	8%	0	0	0	0	0
60- 89	24	0	3%	7%	12%	6%	5%
90-109	30	32%	35%	24%	27%	30%	27%
110-129	30	48%	46%	65%	49%	60%	56%
130–161	6	12%	16%	4%	12%	6%	12%
NUMBER IN GROUP		25	26	29	48	34	85

In the beginning years of the use of this test, we were fearful of an attack on the value of the test and consequently withheld both the actual scores of the individual applicants and the minimum passing grade. These fears were unfounded, however, and to date, we have not had a single such attack.

Adaptability Test. This test is an adaptation of a nationally used police aptitude test of the multiple choice type. The questions consist of word meanings and the interpretation of statements calculated to test the applicant's ability to interpret meanings quickly and accurately. It is a time-limit test of 50 questions which must be completed in thirty minutes.

Since this test is a special one, no analysis was available. It was used for some time merely to test its value and no importance was attached to the result until these values could be determined. It is now used for a tool in screening with a minimum passing grade of 60. While this grade eliminates only 37% of the total applicants, it is felt that it should not be set higher at this time since the analysis of the test has not been completed. At this level it serves to eliminate, to a fair degree, since in one group of twenty-five recently tested, four applicants scoring AGCT 110 failed to score 60.

This test has the disadvantage of having an appreciable re-test gain value, and several applicants have been noted to increase their scores by ten points on the first re-test. Like many tests it is definitely susceptible to cheating.

TABLE II
ADAPTABILITY TEST SCORE—175 APPLICANTS

Grade	Number Persons Scoring	Percentile
30-38		7%
40-48		11%
50-58		19%
60–68		22%
70–78		17%
8088		17%
90-98		7%

INTERVIEW

Following the establishment of passing grades on the tests, applicants are required to appear before an oral interview board in the office of the Commission. The tests serve as a device for preliminary screening only, and the evaluation of the interview board is the deciding factor in the possible employment of an applicant.

The interview board consists of the director, assistant director, personnel officer, and the managers of the five administrative regions. In addition, the various department heads and some of the wildlife officer area supervisors may participate. Written ratings are made, in all cases, by at least seven members of the board.

Individual applicants are allowed at least fifteen minutes before the board, but, whenever necessary, additional time is taken to arrive at an evaluation. Applicants are rated as to general impression, appearance, personality, attitude, reasoning ability, expression of ideas, and composure. Inquiry is made into the applicant's work and experience background, his financial obligations, and, if

he is married, the attitude of his wife toward his work schedule. We have found family conflicts to be a frequent cause of dissatisfaction among our enforcement personnel due to the long hours and absence of a predictable work schedule. The officer whose wife insists upon regular work hours often finds it necessary to resign to resolve such a conflict. Considerable effort is made to determine the sincerity of interest in the specialized field of wildlife conservation and to eliminate the casual job-seeker. Sincerity of interest is the most important factor to be considered, but, unfortunately it is almost impossible to evaluate accurately.

The interview board tries to determine the basic honesty and integrity of the individual through questions of past conduct and hypothetical situations. In addition, the man is weighed as to his possible effect on, and adjustment to, different type communities within the state.

While no calculated effort is made to discomfort the applicant, the interviewers do not attempt to avoid questions which might cause discomfort since we feel that a man's conduct under stress is quite important in work with the Commission.

EMPLOYMENT ELIGIBLE LISTS

Following the interviews, the ratings of each interviewer are tabulated and a combined rating value is established for each candidate. In order to be eligible for employment an applicant must have a combined rating value of approximately eighty. The names of such qualifying candidates are then placed on an eligible list ranged in descending order according to their competitive scores. Attaining a position on this list does not guarantee employment however, since a further selection is made to fill each vacancy. Later qualifying applicants are added to the eligible list according to their scores without regard to seniority. After one year of waiting on this list, the names of any unchosen applicants are removed.

Applicants are placed on the eligible list in proportion to the number of vacancies which exist. We try to avoid the establishment of a big reserve of eligibles since we have found that many of the men in such a waiting status are not available for employment after a delay of some months.

ASSIGNMENT

When a vacancy occurs, a selection is made from the top three of the eligible list by the regional manager in charge of the locality where the vacancy exists. The manager is not required to select the top man on the list but must carefully consider each applicant having a higher rating. An effort is made to select the candidate best suited for the particular opening.

The Commission requires that a new employee must be willing to move from his home community since no one is permitted to work in his county of residence during his first year of employment. Under the provisions of the Merit System, each new employee must serve for one year in probationary status before attaining the status of a regular employee.

Since it has been proven that a new employee is far more receptive to training in the early days of his employment, vacancies are usually not filled until sufficient numbers exist to operate a training school. When emergencies make this course impracticable, the vacancy is filled immediately but the employee is called in to attend the next training session.

TRAINING

Training schools for new employees are conducted about twice a year, but the number of schools may vary according to the annual needs for replacement personnel. While schools have been conducted for as few as six men, the average group is ten. With groups larger than this, there is much less opportunity for attention to the individual's performance. These schools have been operated with a minimum of formality as it was felt that the individual could thus derive the greatest value in the time allowed. Efforts are made to present a well-rounded picture of all phases of the Commission's operations and to stimulate an interest in all such activities. Emphasis is placed on the need for public relations on the part of all employees and maximum effort is made to

prevent the development of the old concept of "arresting" as the sole duty of the enforcement officer. The foundation principles of fish and game management are presented along with the details of laws, arrest procedures, search, and administrative operations. The training approach is designed to give a foundation in the objectives of the Commission and to encourage the individual to participate actively in the furtherance of these objectives.

We are at present endeavoring to establish a program of additional in-service training where effective instruction can be given without impairing work in the field. Libraries of selected books on wildlife, fish and game management, public relations, and related subjects have been established in each regional office for use by personnel of the region. An employee's handbook was prepared and distributed to all personnel last year. Tests are given at regional meetings to insure that the handbook is being studied. We still have a long way to go in the matter of this training however, and we need suggestions on such a program.

To further aid in the improvement of our personnel, a system of semi-annual efficiency ratings has been instituted. Denial of an annual raise is made for one unsatisfactory rating, and three such ratings constitute grounds for dismissal. These reports will also be carefully considered in any promotional steps.

RESPONSE TO THE PROGRAM

Fears that interest in employment would be curtailed under such a selective method with its necessary delays and uncertainties have proved to be groundless. We are today experiencing a higher incidence of interest than ever before—for example, we received one hundred seven applications for employment as wildlife officers between March and August of this year. Of this number, eighty-five took the tests and fourteen were placed on the eligible list. None of these applicants were "talked into" an interest, in fact, efforts are made to stress the disadvantages of the work in order to eliminate the applicant whose interest is casual. Today we are receiving applications from a type of man of capabilities rare indeed some few years ago.

We commonly encounter applicants who are earning far more in their current jobs than they can expect to receive with the Commission. Recently one applicant spent over two hundred dollars in travel in order to apply for a job which carries a salary at least \$100.00 per month less than his current work.

In the earlier stages of the program we followed the practice of publishing notices of vacancies in the "help wanted" sections of leading newspapers but soon discontinued the practice as unnecessary. Notices of the time and place of the tests are now sent to the newspapers in the form of news releases. Advertised notices have the disadvantage of attracting unemployed job-seekers, but applicants in this category are usually discouraged in the selective processes.

SUCCESS OF THE SYSTEM

During the three years of the operation of the selective system, seventy-seven men have been employed. Of these, 65% are still employed and a significant number of these men rank in the upper performance levels as wildlife officers. Our arrest record for the period that the plan has been in effect has risen steadily from a total of 2,183 in the 1955-56 fiscal year to 3,169 during the 1957-58 period. Of the 35% who are no longer employed, 22% resigned for personal reasons while 13% were dismissed as unsatisfactory during the probationary period. Of the total employment terminations, 37% occurred within the first six months; an additional 33% came within nine months; and the remaining 30% came at one year or more.

An analysis of the reasons for resignations shows that income and family demands rank high on the list. Several men resigned in order to accept higher paying enforcement jobs in other fields. Two resigned in order to return to college and several have been called into military service.

While our salary scale will compare favorably with that of other states in the Southeastern Region, it is admittedly low when compared with the pay scale of much private industry or even with that of many enforcement jobs. We are convinced that we will continue to lose good men in both enforcement and other fields until we can effect an overall increase in salary scales.

We do not feel that the turnover we are experiencing is attributable to the selective system since a significant turnover occurred among new employees under the old employment methods. Some turnover is to be expected as long as men are employed who, by reason of age, are in their working prime and can readily find employment in other fields. This turnover can be expected to be intensified when selective processes are organized to choose men with a high performance potential.

In the last analysis, the one criterion which is most important in determining the selection of this work as a career by a capable man is a strong interest, even a devotion, to wildlife conservation. It is this factor which causes men to leave better paying jobs to enter the field and later to refuse future employment offers in other lines. This interest is present in few other lines of work to such a degree and has been our salvation in acquiring men with ability.

In conclusion I would like to say that we have learned a lot and still have a great deal to learn in the matter of personnel selection; but we do feel today that our system is a vast improvement over that of former years.

THE VALUE OF COOPERATION OF STATE AND FEDERAL CONSERVATION OFFICERS

By CHARLES H. LAWRENCE

I've been asked to talk on the subject of Federal and State Cooperation in the field of game law enforcement and I suppose, already some of you are thinking; oh, brother, here we go again, and I don't blame you, I've heard that record played on both sides several times myself. The subject of my talk always seems to create the impression, in my mind at least, that you and I are thought of as being members of two separate camps and that it is necessary periodically for someone to rare back and remind us that we have a common purpose in life.

I'm inclined to think we know that so I'll dispense with the expected platitudes, the faithful cliches and simply say that in my book the important thing is what we are doing and how we do it. Never fear, if we do our job well this matter of cooperation will take care of itself.

Someone said, "A man does best that which he loves most." It follows therefore that you and I are in this profession of game law enforcement because we want to be. It follows also that if we have any pride in ourselves we try to do the best we know how within the limit of our capabilities.

In doing the job to which we seem to have dedicated our lives it matters not whether we are called game wardens, wildlife protectors, or game management agents, our primary function is the same. During my twelve years as a state warden the kind of illegal game the violator might have in his possession was of no import to me. All I was concerned with was the fact it had been taken contrary to the law. Insofar as I was concerned it did not make any difference to me as to how the warden in the next county operated or whether because I had made some duck cases the federal agent gave me a lift on deer shiners. My job was to provide protection to wildlife whether it swam, flew or crawled. Since I was in the business I presumed John Q. Public was paying me to look at all wildlife in the same light. Before I left Washington I looked over some arrest records we have which indicate rather conclusively that the wildlife protectors of the states represented here today seem to be in agreement on that approach—a fact which simply bears out my belief that mutual support always exists between state and federal agencies when the personnel of each are selfless in their interest in a common cause.

It is also my belief that you and I have a mutual responsibility to the hunting public which is made up of deer hunters who hunt ducks, duck hunters who hunt quail, quail hunters who hunt doves, and dove hunters who hunt squirrels.

The Fish and Wildlife Service certainly realizes the magnitude of your efforts in providing protection to migratory birds and therefore, we do not suggest—we insist—that our agents when authorized to do so enforce the state game