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REPORT OF THE PRESIDENT'S COMMITTEE ON WILD-LIFE RESTORATION



THE UNITED STATES DEPARTMENT
OF AGRICULTURE

U.S. President's Committee on wild-life restoration

UNITED STATES
DEPARTMENT OF AGRICULTURE

REPORT OF THE
PRESIDENT'S COMMITTEE ON
WILD-LIFE RESTORATION

THOMAS H. BECK, CHAIRMAN
JAY N. DARLING ALDO LEOPOLD



UNITED STATES
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Letter of Transmittal

DEPARTMENT OF AGRICULTURE,
ROOM 207, ADMINISTRATION BUILDING,
Washington, D.C., February 8, 1934.

The Honorable, The SECRETARY OF AGRICULTURE.

DEAR MR. SECRETARY: Our report, in the preparation of which this Committee has been engaged continuously since January 6, 1934, is herewith respectfully submitted.

You will find that it encompasses a national wild-life restoration program of the broadest scope.

We commend to your attention the fact that we have considered all species of wild life and all values of restoration, instead of confining ourselves to game.

May we hope that our work which has been vividly interesting and stimulating and in which we have had most generous cooperation and support from departments, bureaus, and individuals, will meet with approval.

Thanking you for your helpful advice and cordial aid, we remain

Respectfully yours,

PRESIDENT'S COMMITTEE ON WILD-LIFE RESTORATION,
THOMAS H. BECK,
Chairman.

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Foreword

This Committee has completed a preliminary study of the plan we were appointed to investigate.

We have conferred with Federal and State officials and many leaders in wild-life conservation, and have examined a vast amount of material and data bearing on the subject.

We find the plan in its general aspects and intent practical, vitally necessary, national in scope, and of great economic and social importance.

With your encouragement, we have expanded the prospect of this report to include the restoration of all species of bird and mammal wild life that are, or are becoming, scarce.

There is incontrovertible evidence of a critical and continuing decline in our wild-life resources, especially migratory waterfowl, due to the destruction and neglect of vast natural breeding and nesting areas by drainage, the encroachment of agriculture, and the random efforts of our disordered progress toward an undefined goal.

We found no evidence of the existence of a comprehensive or coordinated plan or effort to correct the situation, which is patent to all informed persons. Therefore, the need for a national program seems too apparent for extensive comment.

At present, as in the past, authority over wild life is scattered through several departments and bureaus (for list, see exhibit A), to the great disadvantage of orderly progress in conservation and restoration.

The President has ample authority under existing law to consolidate and coordinate these scattered responsibilities.

Nothing included in this report, so far as we know, requires any immediate legislation and, therefore, the proposals, if approved, may be put into execution promptly.

Your appointment of this Committee and its responsibility for making a report has been widely and favorably publicized and practically all individuals and organizations contacted have been enthusiastic in their attitude and urge action.

Striking evidence of unanimous and unified support for immediate action on the proposals we are making is had in the "treaty" drawn and signed by the Chairman of the Senate Committee on Conservation of Wild Life Resources, the chairman of this Committee, and the representatives of 47 interested organizations, including the National Grange and the American Farm Bureau Federation, at the Senate committee hearing

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The plan to withdraw by purchase submarginal lands unsuited for profitable agricultural use affords an unusual opportunity to carry out a vast and pressing urgent national program for wild-life restoration.

At no time in history have we had such an opportunity to fulfill our obligation under the migratory bird treaty and to accept the responsibility imposed by the Lacey Act passed in 1900.

For reconditioning these areas, emergency funds (P.W.A. and C.W.A.) provide the necessary money.

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held January 25, 1934, and presented to the President by a select committee on January 26, 1934. (See exhibit B.)

The adoption of this program and putting it in prompt operation will meet with the unqualified approval of, and capture the imagination not only of 7,000,000 licensed sportsmen but, what is more important, millions of nature lovers, students of wild life, and the children of this and future generations.

The economic values are enormous and the cost less than one great bridge or housing project.

Conclusions and Recommendations

A national wild-life restoration program is economically justifiable and immediately practical by utilizing submarginal and commercially unprofitable agricultural lands now contributing so largely to the surplus of agricultural products.

Projects comprising about 5,000,000 acres have, at this writing, been selected and are herein submitted for immediate consideration.

A much larger acreage may be utilized upon further study, but circumstances which constitute an emergency requiring immediate action prompt this Committee to submit a partial list of projects at this time.

Our program for Nation-wide wild-life restoration divides itself naturally into five parts:

1. Migratory waterfowl and shore birds, such as ducks, geese, swans, snipe, and plover, which demands immediate action if it is to have any beneficial effect on this year's population.
2. Upland game, including wild turkey, quail, ruffed, pinnated, and sharp-tail grouse, rabbit, and all other native species.
3. Song, insectivorous, and ornamental birds, many species of which are becoming scarce and all of which are either of great economic value in insect control or of major importance because of their spiritual, recreational, and spectacle values.
4. Mammals, including big game and fur bearers, which heretofore have had but little consideration notwithstanding enormous possible values in meat, wild hides, and fur.
5. A new administrative set-up designed to insure continued, coordinated, and businesslike execution of the plan for the Nation-wide restoration and conservation of our wild-life resources.

After full consideration, this Committee recommends:

1. The immediate acquisition of 4 million acres potentially or actually suitable for migratory waterfowl and shore-bird breeding and nesting grounds.

To insure immediate possession and control and still provide time for careful surveys, proper selection, and construction work, we suggest 1-year leases (5 percent of purchase price) with option to buy at an agreed price any time during the lease period.

Areas thus acquired to be inviolate.

(Confidential list of projects submitted separately.)

2. The purchase of 5,000,000 acres of submarginal land suitable for development and management as upland game areas.

At such time as the game population of these areas becomes sufficient, the surplus may be used for stocking other areas, or regulated shooting under State supervision may be permitted by the granting of trespass rights.

The acreage for upland game should be extended to include at least 10,000,000 acres, as rapidly as suitable tracts are found for withdrawal from unprofitable agricultural production.

(Confidential schedule of areas attached.)

3. The purchase of at least 1,000,000 acres of areas known to be used as breeding and nesting places and rookeries by such species of song, insectivorous, ornamental, and nongame birds as are becoming scarce and of which, sufficient seed stock still remains.

4. (a) Acquisition of 2,000,000 acres needed for the restoration of big game, fur bearers, and other valuable mammals. This should include the purchase of outlying farms or ranches where grazing privileges interfere with the protection of wild-life ranges and deplete the soil conditions.

(b) The withdrawal of grazing privileges on extensive tracts of public domain, and in the national parks and forests where the acreage necessary to graze a head is too great to permit of any profit, and the repurchase of the water rights in such areas.

(c) The taking of title, by the Government, to all reversion land in the public domain and its retention for the restoration of wild life and improvement of soil conditions.

5. That subsistence farm homes in sufficient numbers be established on all areas acquired, the farmers to serve as caretakers and maintenance men under the direction of trained district supervisors. Farmers with satisfactory housing now reside on most of the areas and will be available for this work.

Subsistence maintenance cost for the first year should be provided out of emergency funds and thereafter from the following sources:

- (a) Duck stamp revenue.
 - (b) Part of the funds to be made available under the Migratory Bird Conservation Act.
 - (c) The proposed tax on arms and ammunition already agreed to by the parties interested.
 - (d) Appropriations of public funds, such as are made for forests and parks.
6. For Presidential approval, a new coordinated and comprehensive administrative set-up, including the creation of a wild-life division out of existing personnel, and the appointment of a director competent for the execution of this program of national wild-life restoration and future conservation (exhibit C).

7. That if the conclusions set forth in the above paragraphs prove to be justified by the analysis of the facts hereinafter stated, that \$500,000

be immediately allocated by the C.W.A. for the work of technical examination of the areas listed, for the purpose of securing data not now available upon which final approval of taking title must depend. (See estimate of cost and employment attached, exhibits D and E.)

8. The "ear marking" and use of \$25,000,000 to start the acquisition program by the purchase of areas scheduled to such an extent as the above sum will cover.

9. And finally, that \$25,000,000 of P.W.A. and C.W.A. moneys be allotted for restoration and improvement of the lands acquired. Definite improvement projects to be submitted in the prescribed manner.

This work includes:

- A. Construction of dams and dikes
- B. Fencing and ditching
- C. Excavation and blasting
- D. Food planting and land clearing, etc.

Migratory Waterfowl

A great economic and recreational asset once present in prolific abundance, now threatened with virtual extinction by the destruction of breeding and nesting areas.

*An ironic commentary on our neglect of waterfowl nesting areas is had in the proclamation of President Theodore Roosevelt setting aside Lower Klamath Lake, Oreg., as a sanctuary, in which he said, "this is one of the greatest wild fowl nurseries in the United States. * * * An outdoor museum * * * which will prove of great educational value."*

And in the report of F. L. Lahrop in 1932 which states, "Lower Klamath Lake was drained after much difficulty and expense and dried up—devastated by numerous fires and abandoned as unfit for agricultural development."

The rapid depletion of the migratory waterfowl resource, now universally admitted to be a fact, is in large part a result of the unwise exploitation of submarginal lands.

Drainage operations, intended to bring more land under cultivation, have directly destroyed millions of acres of former breeding grounds, and by lowering of water tables, have indirectly destroyed millions of acres more.

Grazing of the remaining marshlands and ranges has prevented successful nesting and reproduction of breeding stocks. Mowing of hay, and fires have destroyed many nests and nesting sites.

This destruction of nests by grazing and mowing the shores of lakes and sloughs has reduced the annual increase from a normal expectancy of 300 percent to as low as 15 percent in areas under observation.

These destructive agricultural factors are all associated to a large degree with the overextension of the farm area. Coupled with them has come an unprecedented series of drought years, further shrinking the available breeding area. The net effect is that the natural increase from propagation no longer equals the annual losses from all causes.

Natural propagation has been curtailed to such an extent that no amount of further restriction of the take or methods of taking will suffice to restore wild waterfowl.

There is need for prompt and decisive action.

The spring migration northward to the nesting grounds will be under way by the last of February and the main nesting season ended by August 1. It is the belief of the Committee that material results may be obtained this season by retiring from grazing and hay mowing the marginal lands in the duck nesting areas. Some progress can also be made this season toward restoring water on drained areas where the only requirement is to dam up the drainage ditches.

Up-to-date figures and surveys are now available for 325,000 acres of proved nesting areas, and we recommend their purchase as soon as the executive organization has checked them over.

For the remaining portion of the areas under consideration, the information is incomplete. For these incomplete projects the Committee recommends immediate surveys by competent investigators; and where the prospects leave room for doubt, that the areas be acquired by lease for 1 year at 5 percent of the land value, with option to buy, rental to apply on purchase price. This method will allow large areas to be immediately available for nesting grounds.

Types of land to be submitted for consideration:

Natural nesting marshes now made useless by grazing and mowing.
Marshland drained and under unprofitable cultivation.
Grazed or cultivated lands on the shores of lakes or rivers used by breeding birds.

Low-valued flat lands subject to damming for artificial lakes and adapted to nesting.

Drained lakes and marshes which will require dam construction for restoration.

Heavy alkaline lakes, subject to duck sickness, which must be freshened or drained.

River-bank areas suitable for the creation of artificial lakes by damming.

Nesting areas on which drainage projects are now being promoted.

Nesting areas where food was abundant, now lacking, but which will come back if water is restored.

Watered areas where food is scarce but can be restored by planting.

Dry lakes in areas which may be restored by artesian wells.

Upland Game

Our supply of native upland game birds, once the finest in the world, has been reduced to a remnant of its former abundance on large areas in the United States.

Extensive restoration of wild turkeys, grouse, quail, and other upland game will provide profitable utilization for millions of acres of rural land which is unprofitable for farming and stock raising and much of which is ideally suited to the production of game crops.

The retirement of submarginal farms will have a very beneficial effect on those upland birds which feed on wild foods rather than on agricultural grain and weeds. This includes many of the species of birds now most in danger of depletion.

Such areas, when cropped for game, can become valuable object lessons to demonstrate that the growing of an underproduced crop like wild life is a better and more profitable use than the growing of overproduced staple crops which has heretofore prevailed.

Most States own a large acreage which has already been retired by the process of reversion for unpaid taxes. Such lands are now commonly idle. The proposed demonstrations of upland-game cropping on Federal purchase areas should stimulate a like use of tax-reverted State lands.

There is no accumulated exact information on specific tracts suitable for upland game. However, the land-use, soil, and economic surveys, already made in the several States, plus the information on upland game obtainable from State and Federal agencies will, when duly coordinated, furnish a very sound basis for selection of areas. Such coordination, of course, is beyond the powers of a volunteer committee. Hence, to an even greater extent than in the case of migratory birds, there is need of a competent executive staff to survey and appraise the best locations.

The upland-game program, while slower in the initial process of establishment than the migratory-bird program, can be made to yield more tangible revenues in game and fur crops. The species involved are less depleted, and once a full stand has been built up on a given area, an

annual surplus may be utilized for stocking other areas or harvested by regulated hunting or trapping.

Types of land to be considered:

Submarginal upland farms which are or would become suitable for wild turkey, woodcock, prairie chicken, sharptail grouse, ruffed grouse, sage hen, or other upland birds, not requiring cultivated land.

Submarginal upland farms now supporting a small accidental population of common game but more valuable if retired and put under a program of game management.

Submarginal upland farms which should be retired for erosion control, recreation areas, or other special purposes, but which would be incidentally useful as range for any upland species.

Government-owned lands suitable for game management.

Song, Insectivorous, and Ornamental Birds

No comprehensive proposal has ever been made for the restoration of such of these birds as are becoming scarce.

Remedial programs, unless supported by private funds, have dealt almost entirely with shootable game.

The economic, inspirational, recreational, and spectacle value of these birds is incalculable.

The time has come for the definite affirmation, not by words alone but by deeds and dollars, that all wild life is an invaluable public resource, entitled not only to protective laws but also to effective aid. We recommend, therefore, the present land-purchase program be directed specifically to the welfare of nongame species of special value, whether or not game values are also present.

Most migratory nongame species are directly benefited by the migratory game program, but not all. Some rookeries or nesting sites of valuable birds, such as herons, egrets, and cranes, are exposed to serious destructive factors which can be removed by the acquisition and protection of adjacent areas. Where birds concentrate their nests in colonies, the retirement and supervision of a relatively small tract would often greatly benefit the status of the species concerned.

The last remnants of long-billed curlew in New Mexico, Utah, and probably elsewhere, are definitely known to be on the decline due to the grazing off of nesting cover on their breeding grounds. No particular game values are involved. The purchase of the grazing and farm lands needed to relieve this pressure is indicated.

Some species of rare songbirds of very restricted breeding range are known to be shrinking, due to grazing or cutting of farm wood lots. The purchase of such farms, if submarginal, is indicated.

A special inquiry should be made by the wild life administration to find out whether such rare species as the whooping crane, the white pelican, and the sandhill crane could be benefited by the retirement of farms or

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grazing ranches either on the breeding grounds, on the migration routes, or on the winter range, if sufficiently localized.

Land purchases for nongame wild life must often take the form of small parcels, insufficient to justify the services of a resident custodian. Administration of the lands will usually have to be entrusted to State or local agencies under cooperative agreement.

Mammals

The possibilities for largely increasing the populations of big-game and fur-bearing species at small cost are extraordinary.

Their restoration is of great economic importance and will aid in checking soil erosion.

Outlying farms or ranches of a submarginal character may interfere with wild-life restoration in many ways. The retirement of such holdings will frequently involve the purchase of not more than 160 to 640 acres of privately owned land on which the ranch is located, but will free thousands of acres of overgrazed public lands which surround it, and can accomplish the dual purpose of shrinking commercial livestock or farming and expanding wild life, and, incidentally, in many cases, stopping erosion and depletion of the range.

The most common and important (obnoxious) type of interference occurs where an outlying ranch controls the grazing privilege to the surrounding range vitally needed by the large or rare big-game mammals and prevents the exclusion of livestock from such range.

The selection and purchase of such properties can usually be performed through the administrative agency managing game on the surrounding range. Most of such lands will be in the national forests, national parks, Indian reservations, on the Federal public domain, or in some State refuge, forest, or park, so that no expense for administration or maintenance is involved.

The Federal wild-life director should cooperate with the agency concerned to buy such lands.

Less commonly, the outlying ranch will be on private or unregulated public range. The action if any, must be suited to the circumstances.

Types of land to be submitted for consideration:

A grazing ranch headquarters situated on public domain where the grazing permit has already been reduced to a minimum, but where grazing still interferes with some valuable big-game herd, such as mountain sheep, antelope, or elk.

A grazing ranch headquarters located on a bear range, where bear commit occasional depredations and have in the past been subjected to

trapping or poisoning, but where the real remedy is to buy the ranch and let the bears have the range.

Outlying farm properties serving as a base for poachers, market hunters, or other illegal damage to valuable game herds.

An outlying farm now a source of damage claims by reason of beaver colonies, elk herds, or other mammals using nearby range. To retire the farm is good agriculture, good economy, and good conservation.

An outlying sheep ranch liable to transmit scabies to mountain sheep.

Outlying ranches which, by fencing or diversion of natural waters, could be retired to the advantage of wild life.

Administration and Staff

Scientific research has for years tabulated the facts of the destruction of our wild life and prescribed the formulae for its restoration, but the means for applying the information have never been provided.

Now, if ever, action is possible.

(See chart—exhibit C.)

The immediate need for an administrative executive is imperative.

The work of putting into effect this or any national wild-life restoration program and carrying on the essential conservation cannot be done with the requisite speed or resourcefulness by the preexisting personnel or through preexisting procedures.

On the other hand, it is absolutely essential that every trained man and all available information be utilized to the utmost.

To coordinate all correlated Federal conservation and restoration effort, the Committee has the temerity to suggest the appointment (by promotion) of a restoration commissioner under the direction of a committee of the three Cabinet members most concerned, i.e., the Secretaries of the Interior, Agriculture, and Commerce.

The commissioner should supervise and coordinate the wild-life restoration work of the following services:

- Federal parks
- Federal forests
- Reclamation
- Fisheries
- Wild life (new)
- Erosion control
- Public domain
- Emergency conservation work
- Mosquito control

The President should be respectfully asked to issue an Executive order requiring this and to place the jurisdiction over all wild life in the United States and possessions under the Federal wild-life director. This jurisdiction is now scattered "all over the lot" from the Light House Service to the Marine Corps.

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Under the director of wild-life resources, there is need for division heads, as follows:

- A. Migratory waterfowl, shore birds, etc.
- B. Upland game
- C. Song, insectivorous, and ornamental birds
- D. Mammals

These men must have available the services of divisions, as follows:

- A. Land acquisition and restoration
- B. Land and wild-life crop management
- C. Research (imperative)

Much of the talent required for the above positions is available in the Biological Survey, a misnamed, quasi-scientific bureau quite unequal to the present task.

There is a shortage of trained field men needed for district supervision. This shortage can be partially overcome by a series of local training camps to be attended by the field staffs to be set up for the execution of this program, and also by men selected from State conservation departments, agricultural colleges, and other local agencies for the execution of local wild-life conservation work.

Migratory bird and upland game areas purchased under this program will usually require a resident custodian service, and also a technical supervisory personnel. The functions of this personnel will include patrol, posting, food and cover plantings, predator and disease control, and maintenance of water levels.

On the average one custodian will be needed for each 3,000 acres, and one supervisory manager will be needed for each 10 custodians.

The cost of this field service and the ways of meeting this cost are discussed under the next caption. It appears likely, however, that the cost for custodians can be materially reduced by providing them, in cooperation with the Subsistence Farm Home Administration, with subsistence farm homes as part of their compensation. This can usually be provided by rehabilitating some existing farmhouse. Satisfactory performance of duties, however, must be the basis of employment. Revenues from cropping game or fur, where they exist, can be used to amortize subsistence farm homes for custodians.

It is of the utmost importance, however, that no Federal wild-life area be so organized that its maintenance depends on utilization of wild-life crops over and above the safe take. It is incumbent on the proposed administration to see that no such situation arises.

Any national program for wild-life restoration that might be devised would be predestined to failure if its administration is left to the decentralized Government Bureaus whose functions bear upon the problems.

It is hoped that administrative costs that are temporarily in excess of the present budget can be met out of emergency moneys for emergency work.

Costs

Emergency fund for surveys, examination, etc., of projects (source C.W.A.). See Exhibits D and E for details-----	Good job	Partial job	Minimum job
Land to be withdrawn from commercial agriculture and used for wild-life restoration (source F.S.R.C.)-----	\$430,910	\$430,910	\$430,910
Restoration of land (sources P.W.A. and C.W.A.)-----	25,000,000	18,000,000	12,000,000
Maintenance first year out of C.W.A., C.C.C., and subsistence homes-----	(1)	(1)	(1)
Total-----	50,430,910	36,430,910	24,430,910
Maintenance after first year:			
Revenue sources:			
Duck stamp proceeds-----			\$700,000
Migratory Bird Conservation Act appropriations-----			300,000
Ammunition tax-----			2,500,000
Game and fur cropping-----			(1)
Total annual revenue-----			3,500,000

1 Estimates not feasible at the present time.

Recapitulation

The destruction of our once abundant wild-life resources, through waste and neglect, constitutes one of the sorriest chapters in our national history.

The knowledge, the facilities, and the funds necessary for restoration are available if we will put them to work.

Extensive restoration of our wild life will re-create a national resource of incalculable value, which will add measurably to the health, happiness, and prosperity of the people of the United States.

Note: A confidential list of tentative projects, from which definite selections will be made, was submitted to the President with this report. All governmental sources, State commissioners, sportsmen's organizations, and many interested individuals were asked to submit proposals.

Exhibit A

Departments and Bureaus of the Federal Government having authority affecting Wild Life:

Department of Agriculture:
Bureau of Biological Survey
Forest Service

Department of Commerce:
Bureau of Fisheries
Bureau of Lighthouses

Department of Interior:
National Park Service
General Land Office
Reclamation Service

Navy Department:

Administration of game on five areas in Virginia, Hawaii, and elsewhere

War Department:

Administration of game on 17 areas in 8 States.

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Exhibit B

Memorandum of agreement on wild-life restoration signed by representatives of 47 organizations and presented to the President January 25, 1934

Hon. FRANKLIN D. ROOSEVELT,

The White House, Washington, D.C.

MY DEAR MR. PRESIDENT: We have the honor to present to you the unanimous vote of a large group of representative conservationists who met today at the Senate Office Building at the request of the Special Committee of the Senate on the Conservation of Wild-Life Resources to consider certain legislative phases of a program presented by this committee and certain administrative and executive phases of a plan proposed by your committee of three, known as the "President's Committee on Wild-Life Restoration."

It would be difficult, if not impossible, to express to you the enthusiastic appreciation and the hearty cooperation pledged by the sportsmen of the country, the nature lovers, the farmers' organizations, the conservation commissioners, the representatives of the National Association of Audubon Societies, and the sportsmen's magazines for a comprehensive plan with the possibility of a large fund in support of this plan for the restoration of our migratory waterfowl, upland game birds, and insectivorous birds, and the purchase, for these purposes, of large areas of submarginal lands. The conference unanimously approved the following:

(1) The duck stamp bill prepared by the Special Senate Committee on the Conservation of Wild-Life Resources, Senate bill 1658 and House bill 5632.

(2) Senator Joseph T. Robinson's wild-life refuge bill no. 2277: A bill to establish fish and game sanctuaries in the national forests and on other public lands, approved by the Senate committee and now on the Senate Calendar.

(3) The coordination bill, introduced by the Senate committee, to coordinate conservation activities of the several Federal departments, which passed the Senate and was approved by the House committee in the last session.

(4) Your stimulating order setting aside the sum of \$25,000,000 for the withdrawal of submarginal lands from commercial agriculture which suggests the use of certain portions of these lands for migratory waterfowl and upland game.

(5) That appropriations should be made as authorized under the Norbeck-Andresen bill and the policy established therein for a period of 10 years (5 years have already gone) should be renewed.

(6) The treaty with Canada established our duty to conserve migratory birds along their annual flight lanes within our country. When

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these birds reach the Mexican border, or the Gulf of Mexico, many of them cross into the domain of our sister republics to the south, particularly Mexico. We recommend that negotiations be entered into to bring about a treaty with Mexico similar in character to that with Canada.

Proposals for a plan to be submitted to the President by the President's Committee on Wild-Life Restoration.

(1) Restoration of migratory waterfowl nesting areas by purchase (1-year lease with option to buy, to hasten possession and guard against error) of a large number of such areas in the States where these birds naturally multiply if given proper environment and food.

(2) A Nation-wide upland game restoration program, with specific projects.

(3) A Nation-wide plan for action involving the acquisition and restoration of areas suitable for facilitating a prolific nature in increasing the population of all wild life, especially those species which are, or are becoming, rare.

(4) A proposal for a much-needed coordinated and businesslike administration set-up to carry the plan into successful execution if or when the report is approved by the President.

For the first time in the history of organized conservation, there was a unanimity of action in a broad program which, in our belief, will redound to the great benefit of future generations. Respectfully submitted.

(Signed) **FREDERIC C. WALCOTT,**
*Chairman Senate Committee on the Conservation of
Wild Life Resources.*

(Signed) **THOMAS H. BECK,**
*Chairman President's Committee on
Wild-Life Restoration.*

*Additional signatures attached to the report by the Senate Committee on
Wild Life Resources and the Presidential Committee on Restoration of
Wild Life*

American Game Association—Seth Gordon, president, Investment Building, Washington, D.C.

Izaak Walton League—S. Barry Locke, conservation director, 222 North Bank Drive, Chicago, Ill.

More Game Birds in America, Inc.—Arthur F. Foran, president, 500 Fifth Avenue, New York City.

National Association of Audubon Societies—T. Gilbert Pearson, president, 1775 Broadway, New York City.

International Association of Fish and Game Commissioners—William J. Tucker, Austin, Tex.

Western Association of Fish and Game Commissioners—Nathan Moran, 41 Sutter Street, San Francisco, Calif.; John L. Farley, Russ Building, San Francisco, Calif.

American Fisheries Society—Fred A. Westerman, Lansing, Mich.

New England Fish and Game Association—John C. Phillips, 41 Mount Vernon Street, Boston, Mass.

Western Game Association—Thomas A. E. Lally, 404 Bell Street Terminal, Seattle, Wash.

American Forestry Association—Ovid Butler, 1727 K Street, Washington, D.C.

Southern Association of Fish and Game Commissioners—I. T. Quinn, Montgomery, Ala.

Farmers Union—John A. Simpson, Oklahoma City, Okla.

National Grange—Fred Brenckman, 630 Indiana Avenue, Washington, D.C.

American Farm Bureau—Chester H. Gray, Munsey Building, Washington, D.C.

New York Zoological Society—W. Reid Blair, New York City.

Camp Fire Club of America—William B. Greeley, 38 Park Row, New York City.

American Rifle Association—M. A. Reckord, Barr Building, Washington, D.C.

Emergency Conservation Committee—Rosalie Edge, 734 Lexington Avenue, New York City.

American Game Conference—William C. Adams, State Office Building, Albany, N.Y.

National Legislative Committee—E. Lee LeCompte, Munsey Building, Baltimore, Md.

Western Fish and Game Association—Newell B. Cook, Salt Lake City, Utah; David H. Madsen, Salt Lake City, Utah.

Conservation committee of the Arms and Ammunition Institute—E. E. Handy, Bridgeport, Conn.

American Geographical Society—Isaiah Bowman, Broadway and One Hundred and Fifty-sixth Street, New York City.

Mid-Western Duck Club Association—Robert Lungstrass, 3101 South Vandeventer Avenue, St. Louis, Mo.

Conservationist at large—Harry B. Hawes, Transportation Building, Washington, D.C.

American Conservation Society—Guy Amsler, Little Rock, Ark.

Conservation Commission of Ohio—William H. Reinhart, Columbus, Ohio.

National Parks Association—Robert Sterling Yard, 700 Twentieth Street, Washington, D.C.

Arkansas and Tennessee Duck Club Association—Nash Buckingham, Memphis, Tenn.

Personal representative of the Governor of Wyoming—I. H. Larom, Valley, Wyo.

American Nature Association—P. S. Ridsdale, 1214 Sixteenth Street, Washington, D.C.

Magazine editors:

National Sportsman—William H. Foster, 108 Massachusetts Avenue, Boston, Mass.

Outdoor Life—Harry McGuire, Mount Morris, Ill.

Field and Stream—Ray P. Holland, 578 Madison Avenue, New York City.

Migratory advisory board:

William Finley, Jennings Lodge, Oreg.

Lee Miles, Little Rock, Ark.

Brooke Anderson, Chicago, Ill.

The President's committee of three:

Thomas H. Beck, Hartford, Conn.

J. N. Darling, Des Moines, Iowa.

Aldo Leopold, Madison, Wis.

House of Representatives:

Richard M. Kleberg of Texas.

Tom D. McKeown of Oklahoma.

A. Willis Robertson of Virginia.

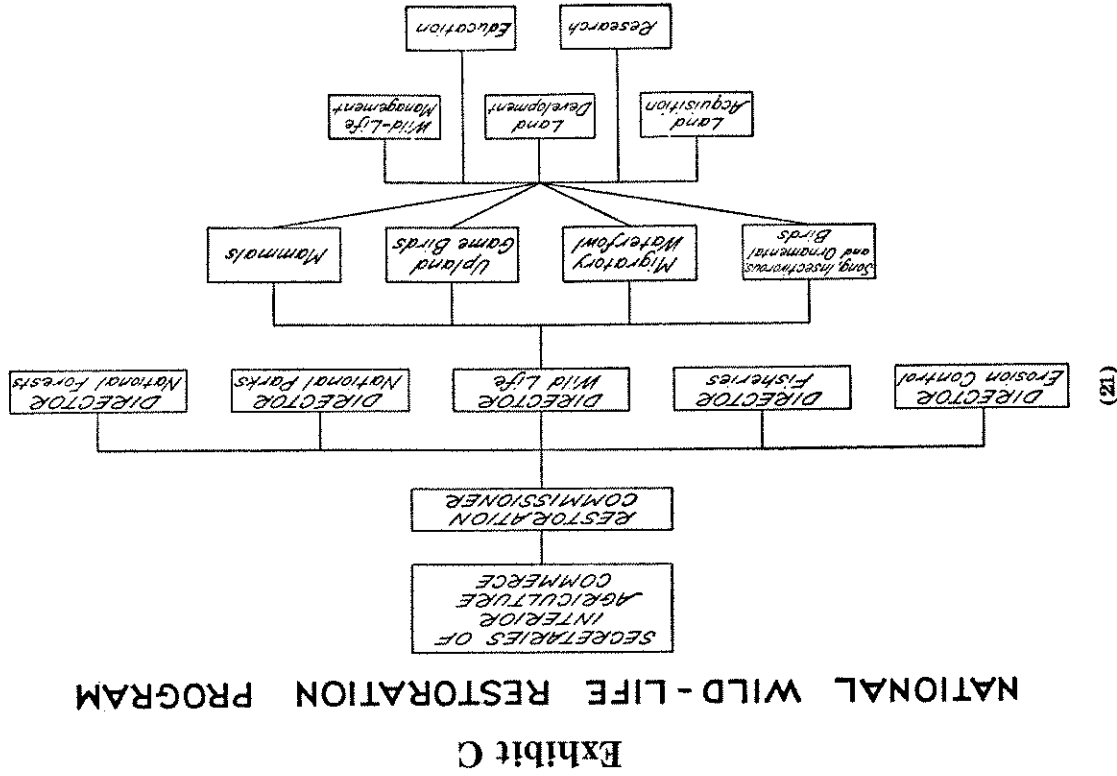
Senate Committee on Wild Life Resources:

Senator Frederic C. Walcott of Connecticut.

Senator Key Pittman of Nevada.

Senator Charles L. McNary of Oregon.

Carl D. Shoemaker, secretary.



Purchase Procedure, Migratory Waterfowl

Each project submitted will be subject to the following surveys before final acceptance:

1. Potential capacity of the area to breed birds.
2. Land acquisition.
3. Engineering.

- (a) Present water conditions and possibilities.
- (b) Practicability of planned construction work.

Detailed reports of each survey will be submitted. Final acceptance or further surveys of the project will depend on satisfactory reports. The original survey party will consist of:

1. A project inspector accompanied by a plant ecologist. The project inspector will visit and inspect the area included in the project in order to ascertain its possibilities as a breeding and nesting ground. The points to be covered in this survey are:

- (a) Location.
- (b) Potential capacity to produce birds.
- (c) Relative importance in comparison with other projects.
- (d) Environmental conditions in and surrounding the area, i.e., grazing, agriculture, natural enemies, etc.
- (e) Management problems.

The plant ecologist will accompany the inspector to investigate and report on the vegetation in the area, character of the soil and water, and the possibilities of providing suitable vegetation for food and cover.

For the purpose of estimating costs, each inspector and party will cover an average of 10 projects on one trip out of the district headquarters which will be centrally located and established by the supervisor to be employed as explained below.

To properly carry out the work of locating the most practicable, useful, and economical projects, a temporary inspection staff should be organized for a period of 4 months.

This staff should consist of:

- Five district supervisors
- Ten assistant supervisors
- Two supervising engineers
- Two supervising plant ecologists
- Twenty game inspectors
- Twenty plant ecologists
- Two engineer office assistants
- Fifteen land examiners
- Ten clerical assistants

(22)

Upon receipt of a satisfactory report from the project inspector and plant ecologist, the district supervisor will visit and inspect the area, pass upon it, and arrange for an engineering survey after contact with the State game commissioner and State engineer.

2. Upon receipt of a satisfactory report from the district supervisor, a land acquisition examiner will be sent to negotiate with the owners for control of the necessary property on a lease with option to buy within 1 year. The amount paid for the lease is not to exceed 5 percent of the purchase price and will be considered as part payment if the property is purchased within the tenure of the option.

Upon a report from the land acquisition examiner, indicating that control of the property has been obtained, the district supervisor will arrange for an engineering survey.

3. *Engineering survey.*—This survey will include:

- (a) Inspection and report of present water conditions and the possibilities of additional water for the project area.
- (b) Construction work survey.

The report will include recommended construction work with plans and specifications for the type of work necessary to maintain suitable water levels with estimated costs.

The district supervisor will keep in close touch with the surveying engineer to see that the engineering or construction work is designed to give the best results for suitable breeding and nesting grounds. In some cases it might be necessary for the district supervisor to accompany the engineer's survey party.

It is estimated that each recommended project will require on an average of 6 days' time of one project inspector's survey party—three days for the original survey of the project and 3 days for the work of overseeing engineering parties.

It will therefore be necessary to set up a temporary inspection organization equipped with motor vehicles for a period of 4 months.

The estimated costs of this organization are:

5 district supervisors at \$1,200	\$6,000
10 assistant supervisors at \$800	8,000
2 supervising engineers at \$1,200	2,400
2 supervising plant ecologists at \$1,200	2,400
20 project inspectors at \$800	16,000
20 plant ecologists at \$800	16,000
2 engineer office assistants at \$600	1,200
15 land examiners at \$1,000	15,000
10 clerical assistants at \$400	4,000
39 automobiles at \$550	21,450
Gas, oil, tires, and repairs 120,000 miles at \$0.04	92,450
General traveling, 74 men for 120 days = 8,800 man-days at \$4	4,800
	132,770

Aerial surveys can be made over many of the projects advantageously. Views of the area photographed from the planes will often give sufficient information to classify the project properly. No estimate of the cost of such surveys is included in these inspection cost figures as Army planes can be used for the purpose.

It is estimated that 25 percent of the projects originally submitted will not pass the first inspection. On this basis there will be 225 projects recommended for engineering survey.

The costs of the preliminary engineer's survey are estimated as follows:

1 engineer at \$25 a day for 10 days	\$250
1 engineer's assistant at \$5 a day for 10 days	50
Average cost preliminary engineer's survey	300
225 projects at \$300	67,500
Approximately 10 percent of the projects will fail to pass the preliminary engineering inspection. Therefore, it is estimated that 200 projects will be submitted for the construction survey and mapping of the project.	
1 engineer, \$25 a day for 15 days	\$375
3 assistants, \$5 each per day for 15 days	225
200 projects at \$600	600
	120,000

Summary of estimated costs for surveys of proposed projects. (This does not include administrative expense):

Temporary inspection organization	\$132,770
Preliminary engineering survey	67,500
Final engineering survey	120,000
Total	320,270

An executive should be appointed head of the inspection staff with offices at Washington. He should be assisted by an office force of approximately six clerical assistants. To the total given above, there should be added, therefore:

1 executive, 4 months	\$2,000
6 clerical assistants at \$400	2,400

Since this work falls definitely within the class of men who are largely unemployed at this time, provision should be made for payment out of C.W.A. funds.

Exhibit E

Purchase Procedure, Upland Game

Each project will be subject to the following surveys before final acceptance:

1. Potential capacity of the area to breed birds.
2. Land acquisition.

Detailed reports of each survey will be submitted. Further surveys or final acceptance of the project will depend on satisfactory reports.

The original survey party will consist of:

1. A project inspector accompanied by a plant ecologist. The project inspector will visit and inspect the area included in the project in order to ascertain its possibilities. The points to be covered in this survey are:

- (a) Location.
- (b) Potential capacity to produce wild life.
- (c) Relative importance in comparison with other projects.
- (d) Environmental conditions in and surrounding the area, i.e., agriculture, livestock, natural enemies, open land, timbered land, topography, water, etc.
- (e) Management problems.

The plant ecologist will accompany the inspector to investigate and report on the vegetation in the area, character of soil, and the possibilities of providing suitable food and cover for the wild life native to the section.

To properly carry out the work of locating the most practical, useful, and economical projects, a temporary inspection staff should be organized for a period of 4 months. This staff should consist of:

- One ruffed grouse supervisor
- One quail supervisor
- One sharp-tail grouse and prairie chicken supervisor
- One exotic species supervisor
- Two game animal supervisors
- Six assistant supervisors
- Three land examiners
- Two supervising plant ecologists
- Fifteen project inspectors
- Fifteen plant ecologists
- Ten clerical assistants

Upon receipt of a satisfactory report from the project inspector and plant ecologist, the species supervisor or an assistant will visit and inspect the property and contact the State game authorities.

2. Upon receipt of a satisfactory report from the supervisor, a land-acquisition examiner will be sent to negotiate the terms as described in exhibit D (purchase procedure, migratory waterfowl).

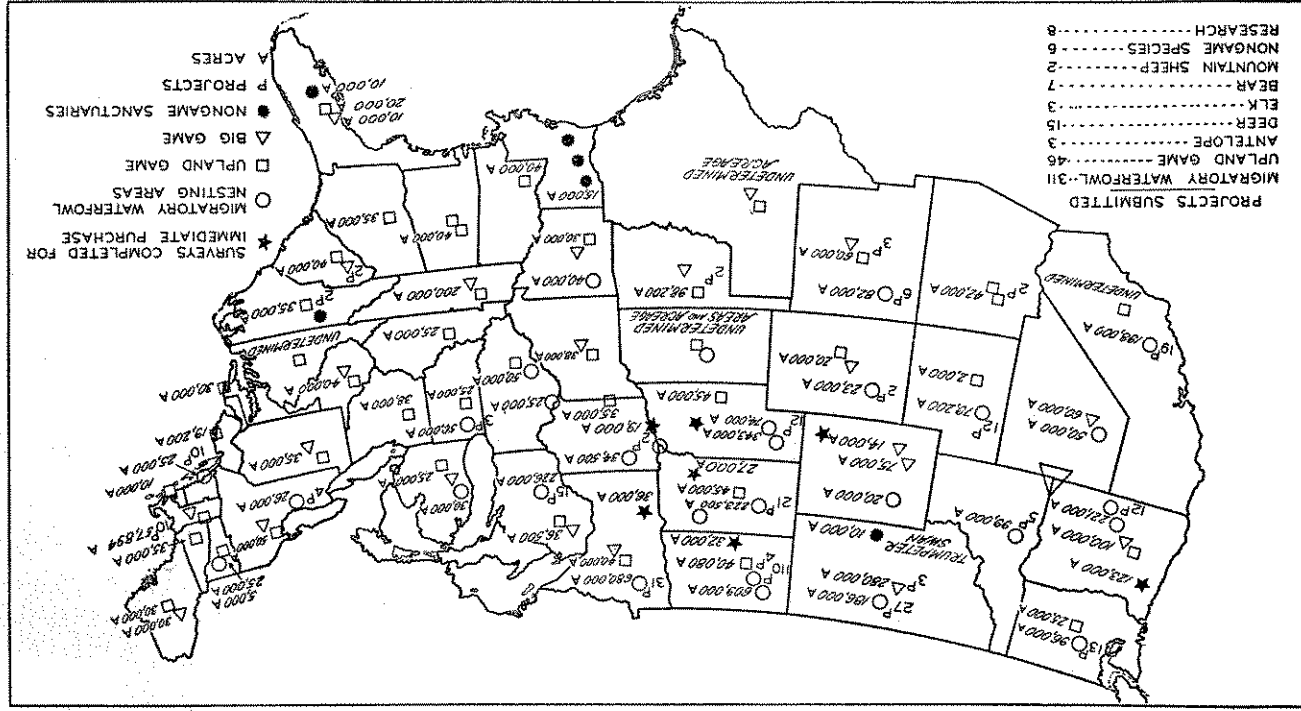
The supervisor will prepare a plan of management for the property to be put into operation as soon as control is obtained.

It is estimated that 100 upland-game projects will be inspected and passed upon. The estimated costs of an inspection organization equipped with automobiles to take care of these projects are:

7 supervisors, at \$1,200	\$8,400
7 assistant supervisors, at \$800	5,600
2 supervising plant ecologists, at \$1,200	2,400
2 soil experts, at \$1,200	2,400
15 inspectors, at \$800	12,000
15 plant ecologists, at \$800	12,000
10 clerical assistants, at \$400	4,000
10 land examiners, at \$1,000	10,000
32 automobiles, at \$550	17,600
Gas, oil, tires, and repairs, 100,000 miles, at \$0.04	74,400
General traveling, 58 men for 120 days = 6,960 man-days, at \$4.	4,000
	27,840
	106,240

There should be no additional administrative expense as this work can be carried on in the office of the executive in charge of waterfowl surveys.

Exhibit F



(27)