Twenty-sixth biennial report of the Wisconsin Conservation Department for the fiscal years ending June 30, 1956 and June 30, 1958. 1959

Wisconsin. Conservation Dept.
Madison, Wisconsin: [s.n.], 1959

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SIXTH BIENNIAL REPORT

EDUCATION DEPARTMENT

OF WISCONSIN

1956 1958

TWENTY-SIXTH BIENNIAL REPORT

OF THE

WISCONSIN CONSERVATION DEPARTMENT

For the Fiscal Years Ending June 30, 1956
and June 30, 1958

MADISON, WISCONSIN
1959

THE WISCONSIN PUBLIC HERITAGE

— *To Be Conserved and Wisely Managed* —

- Over 10,000 square miles of water area in the Great Lakes and more than 500 miles of shore line on Lakes Michigan and Superior.
- Over 1¼ million acres of interior surface water including more than 8,700 lakes and 33,000 miles of mapped waterways.
- About 1,400 trout streams with over 8,000 miles of trout habitat.
- About 200 bass streams with approximately 3,500 miles of bass habitat.
- Over one-half million acres of land under Conservation Department management in state parks, forests and wildlife conservation areas containing almost 1,000 miles of water frontage on lakes and streams.
- Over 2½ million acres of lands entered under the Forest Crop Law open to public fishing and hunting.
- Over 1½ million acres of lands in national forests and wildlife refuges dedicated to public recreational use.
- Almost 150,000 acres of State Land Commission lands containing significant timber and wildlife values.
- Over 650 kinds of wild animals including 78 mammals, 336 birds and 174 fish.
- Over 16 million acres of commercial forest land with important timber and outdoor recreational possibilities.

LETTER OF TRANSMITTAL

HONORABLE GAYLORD A. NELSON
Governor of Wisconsin
State Capitol
Madison, Wisconsin

Sir:

In compliance with the provisions of section 14.61 of the state statutes, I have the honor to submit for your consideration the twenty-sixth biennial report of the State Conservation Department concerning its work for the two fiscal years ending June 30, 1958.

The State Conservation Commission joins with me in an expression of appreciation for the Executive Office support we have received for the conservation program without which these accomplishments could not have been achieved. As problems in the conservation of our renewable natural resources multiply even more rapidly than our population increases, we look forward to a future in which the State Conservation Department will have even greater and more significant opportunities for service to the citizens of Wisconsin. In this endeavor we feel assured of your continuing cooperation.

I trust the report transmitted herewith will meet with your approval.

Respectfully,

STATE CONSERVATION DEPARTMENT
L. P. VOIGT, *Director*

CONSERVATION COMMISSION

ARTHUR R. MacARTHUR, Janesville
Chairman

RUSSELL D. STOUFFER, Shell Lake
Secretary

GUIDO R. RAHR, Manitowoc

A. W. SCHORGER, Madison

LEONARD J. SEYBERTH, Eau Claire

CHARLES F. SMITH, Wausau

CONSERVATION DEPARTMENT

L. P. VOIGT
Director

JOHN A. BEALE
Chief State Forester

C. A. BONTLY
Finance

W. T. CALHOUN
Information and Education

G. S. HADLAND
Law Enforcement

ROMAN H. KOENINGS
Forests and Parks

LULU M. KORN
Clerical

GEORGE SPRECHER
Assistant Director

NEIL LeMAY
Forest Protection

LAURENCE F. MOTL
Engineering

EDWARD SCHNEBERGER
Fish Management

J. R. SMITH
Game Management

S. W. WELSH
Forest Management

WILLIAM A. MATSON
Personnel and
Administrative Officer

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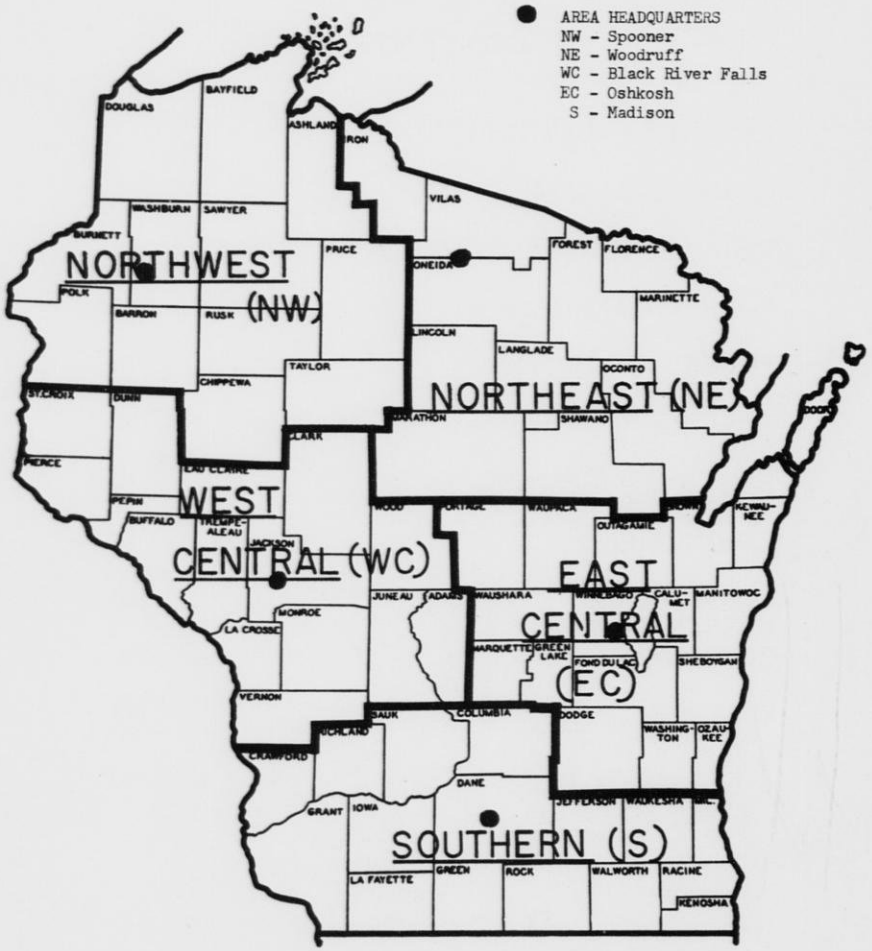


Report of the Director

HIGHLIGHTS AND GENERAL TRENDS

The biennium started with a report of the Crossley Fishing–Hunting Survey which revealed that a million Wisconsin fishermen and hunters spent 62 million dollars for 20 million days of sport in 1955. They drove their automobiles 345 million miles in pursuit of this form of recreation in that single year! This report reflects the general trend of the times: rapidly increasing populations, more time and opportunity for outdoor recreation and the resulting increased pressures on all natural resources available for public use—a general trend revealed frequently in this report.

Total Conservation Department actual expenditures for these two years were $22,370,697.71. This was the largest program accomplished to date in the Department's history. In the second year of the biennium almost twelve million dollars were spent in carrying out the Department's program—an increase of about 16% over the first year. To a large extent, this was due to increased license fees received in a very favorable legislative session and to greater appropriations.

On August 10, 1956, the Department published a leaflet, "Wisconsin Sportsmen —This Is For You!" telling the story of revenue problems caused by inflation and other factors which reduced the value of the conservation dollar. It also explained the need for rapid expansion of such programs as wetland acquisition and asked for support of higher license fees.

When the Legislature recessed on June 29, 1957, they had completed action on all bills sponsored by the Conservation Commission. Of 24 such bills, 20 had passed both houses. Of another 20 bills favored for passage by the Commission, 15 had passed. Of 17 bills opposed by the Commission, all were rejected. The most important of these measures was for revenue increases for use through the Fish and Game Fund and in the state parks program. License increases were secured for resident hunting, fishing and trapping as well as the Voluntary Sportsmen's license.

Other significant legislation approved the "party permit" group deer hunting program for securing better deer management; dropped the payment of bounties for the second year of the biennium (with much of this money going into wetland purchases); and added the Conservation Director to the State Soil Conservation Committee membership. Because some of the increased revenues became available the same year, a "supplemental budget" was presented to the Emergency Board and their approval released substantial funds for accelerated wetlands acquisition and other fundamental land management programs.

Some comparisons between the beginning and ending of these two years may give some understanding of the scope of accomplishments during this period:

1. Land acreage under Conservation Department supervision increased 17% to a total of over one-half million acres.

2. Department personnel stepped up over 10% ending the biennium with 1,127 permanent and 708 seasonal employees.

2. Acreage entered under the Forest Crop Law increased by approximately 1% to exceed 2½ million acres while the

new Woodland Tax Law entries jumped about 350% to almost 49,000 acres.

4. The increased license fees (of from $1.00 to $3.50) were expected to cause a drop in sales by about 10%, but this fortunately did not materialize. As compared with the first year, the second showed an *increase* of 2% in the resident big game hunting license and decreases of 4%, 5% and 8% respectively in the Voluntary Sportsmen's License, resident fishing license and resident hunting license.

Some of the highlights and general trends in the Department's program this biennium are summarized as follows:

1. *General Program* Besides developments already mentioned, there was a great increase in gifts of money from conservation and civic groups and individuals supporting specific projects especially in the wildlife and recreational field. Research work was expanded and given better direction through appointment of a Research Coordinator and approval of the Forest Pest Control Laboratory at Madison. Public information and education services were enhanced through an expanded Radio–T.V. program, establishment of the Official Wisconsin Vacation Center in Chicago and growth of the *Conservation Bulletin* to the monthly distribution of 80,000 copies.

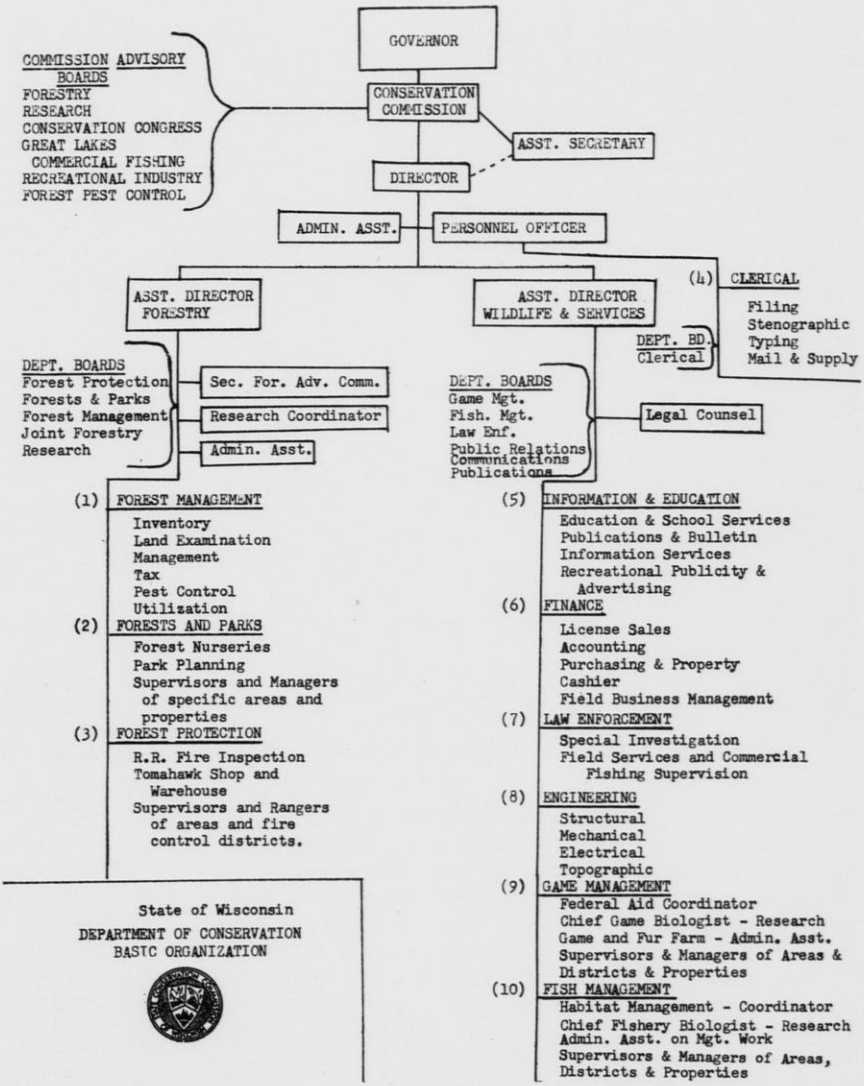
2. *Forestry, Forest Protection and Parks* The 62,000 acre Black River Unit of the Central Wisconsin Conservation Area was transferred to the Forests and Parks Division to become the Black River State Forest. Recreational use of the state forests increased about 20% in the northern properties and double this amount in the southern. The forest pest control program was expanded significantly and major efforts were made to control the spread of jack pine budworm, Saratoga spittlebug and the newly detected maple blight disease. Over 73 million seedling and transplant trees were distributed by the state nurseries in these two years with production practically equaling full capacity.

The upsurge in recreational use of forests was even more pronounced in the state parks with the second year of the biennium even showing a 5% increase in visitations over the first and a 31% increase in camper use! Many of the new park installations and developments were aimed at filling this demand and this included authorization for building a dam to create a new lake in Governor Dodge State Park.

Forest fires burned more acreage during these two years than in the previous 10 year average due to the unusually dry conditions. Forest Protection Districts were expanded to include several new areas, especially with an "extensive" type of coverage. Greater use made of the outdoors by more people was one of the primary reasons.

Successful recruiting of needed foresters in the spring of 1958 was important to the forest management program. The Forest Inventory begun in 1950 was completed for the northern area in this biennium with all final county reports published. Also, the field work for the southern part of this inventory was completed. There was much advancement in small woodland management and a heavy load of work encouraged by federal activities in the Soil Bank, Agricultural Conservation and Small Watershed programs.

3. *Fish, Other Wildlife and Law Enforcement* Wetlands acquisition was one of the most important programs of these two years with the purchase of 5,786 acres at a cost of almost one-half million dollars in 1957. A record was set in the February 1958 Commission meeting when 108 options for purchase of $340,000 in wetlands were approved. Most of the field work for a wetland survey also was completed. A significant beginning was made in deer range management on the state's 16 million acres of forest lands. Beaver damage continued



to be a serious problem because of inadequate harvests and difficulty in controlling them. The repeal of the bounty on predacious animals permitted the establishment of a closed season on timber wolves and lynx for the first time in the state's history. "Party" deer hunting permits used for the first time in 1957 resulted in a successful season and greater management flexibility in this controversial resource. Game food shrub distribution reached over a million plants in spite of the failure of seed germination on multiflora rose in 1958 and "prescribed burning" for maintaining wildlife openings hit a high of 33,000 acres this year.

In the fish management field, lake con-

version and rehabilitation was on the upward trend these two years as a result of a number of strikingly successful projects. This work was enhanced by the establishment of a more effective research and district fish manager organization. During this biennium the sea lamprey control project seemed to turn the tide in favor of some future hopes for the Great Lakes fisheries. Along with stepped-up work in watershed management and lake and stream improvement, there was an increase in surveys and classification of surface water resources. Heavy mortality of muskellunge fry at the Woodruff Fish Hatchery in 1958 reduced this stocking program that year. There also was a tremendous increase in private fish hatcheries and supervision of their licensing.

Law enforcement work brought about 10,000 cases to justice in this biennium with convictions in almost all cases. Partly because of an aggressive license checking procedure, Wisconsin continued to sell more nonresident fishing licenses than any other state. Conservation Wardens also recorded the new high record of 2,470 deer killed by cars in 1957. New stress was placed on in-service training of wardens and an effective Special Investigation Section was activated. Conservation Wardens increased their efforts in the field of boat safety education and control with increasing evidence of conflict between recreational power boat water users and fishermen.

All field personnel of the Department were concerned more than ever before in this biennium with such growing problems as siltation of streams and lakes, diversion of water from natural waterways, water pollution, marsh and lakeshore filling, loss of wildlife habitat, uncontrolled wildlife and forest mortality due to diseases, pests and chemical poisons and the continual loss of access to public waters as well as hunting opportunities on private lands.

CONSERVATION COMMISSION ACTIONS AND POLICIES

During this biennium the Wisconsin Conservation Commission celebrated its 30th year of existence under the Conservation Act of 1927 which remained unchanged through this period. The historical background of this six-man nonpaid policy-forming body is explained in detail in the Wisconsin Blue Book along with the Conservation Department's organization as outlined in the accompanying chart. This form of organization has assured stability for the Wisconsin conservation program over the years with all permanent personnel except the Director under civil service protection and Commissioners with staggered terms to assure continuity of policy and program.

Because Governor Vernon W. Thomson reappointed Commissioners Guido R. Rahr and Charles F. Smith on April 15, 1957, to new six-year terms ending July 27, 1963, there was no change in the Conservation Commission's make-up during the two years covered by this report. On January 13, 1956, Leonard J. Seyberth was elected chairman and Arthur R. MacArthur secretary. They continued in these positions until January 9, 1959, when Commissioner MacArthur was elected chairman and Russell D. Stouffer secretary.

During this biennial period, the Conservation Commission adopted significant policy statements on the following subject:

1. Deer management by designated areas (September 20, 1956).
2. Commission action on projects, programs and rules (December 14, 1956).

3. Providing public access to lakes and streams (February 8, 1957).
4. Preservation of springs (June 21, 1957).
5. Protection, development and use of water (June 21, 1957).
6. Land transfers between divisions of the Conservation Department (November 8, 1957).
7. Wetland preservation, restoration and management (December 13, 1957).

Research Advisory Committee

*Lyle Christenson	*Donald J. Mackie
William DeYoung	Robert A. McCabe
*James B. Hale	Herman Olson
Arthur D. Hasler	Fred B. Trenk
*Cyril Kabat	Fred G. Wilson

Forest Advisory Committee

Folke Becker	Allen Haukom
Ivan Branham	F. G. Kilp
George Corrigan	*Donald J. Mackie, Ex. Sec.
Willard J. Fahrenkrug	John Mylrea
Fred Grunwald	A. E. Swanke

Wisconsin Conservation Commission and the conservation director, 1956–1958. Left to right, foreground, Guido R. Rahr and Russell D. Stouffer. Rear, Chairman Leonard J. Seyberth, A. W. Schorger, Charles F. Smith, Secretary Arthur R. MacArthur and Director L. P. Voigt.

8. Growing of trees and shrubs for reforestation, improvement of game habitat, watershed protection and allied conservation developments (June 20, 1958).

Of great value to the Conservation Commission in its effort to establish wise policies and intelligent rules are the six advisory committees on research, forestry, forest pest control, recreational advertising, commercial fishing and wildlife conservation (Conservation Congress). The members of these committees, including only the Executive Conservation Council of the Conservation Congress, were as follows at the end of the biennium:

Forest Pest Control Steering Committee

Bruce Buell	*Donald W. Renlund
E. L. Chambers	Dr. Roy Shenefelt
Frank Fixmer	*S. W. Welsh
James Kuntz	

Recreational Industry Advisory Committee

*J. H. H. Alexander	A. G. Hundt
E. A. Conforti	Henry J. Knott
Ralph M. Cooper	Jack B. Olson
Art Huebner	Pat Wilsie

Great Lakes Commercial Fishery Advisory Committee

Ever W. Bodin	Joe DeWitt
Joseph Cayner	Melvin Erickson

Frank Korchak	*Edward Schneberger
Raymond E. McDonald	Clarence Schultz
Lawrence Monfils	Marcel Schwartz
	Cliff Wenniger

Executive Council of the Wisconsin Conservation Congress

W. M. Alexander	Edward J. Morse, Jr.
Charles Brees	*Russ Neugebauer
Glen L. Garlock	L. C. Sykes
John M. Hammer	Daniel O. Trainer
Kenneth Hoesly	Edward Young
Edward F. Keip	
Marvin E. Lederer	

The asterisk (*) indicates members of the Conservation Department who served as liaison representatives in cooperation with these advisory bodies at this time.

The Congress consists of three regular delegates and two alternates who are elected at public hearings held in each of the 71 counties of the state in May of each year. The Executive Council, implementing its activities, recommended continuation of the several study committees for the purpose of advising the Council on recommendations to the Wisconsin Conservation Commission. The following study groups were continued: Big Game, Waterfowl, Trout, Fish, Upland Game, Fur, and Education and Public Relations. In addition, two members of the Congress were appointed as members of the Commercial Fisheries Advisory Committee.

ADMINISTRATIVE SERVICES

At the beginning of this biennium, on July 26, 1956, an administrative directive was distributed to all personnel on the realignment and reassignment of duties and channels of authority within the Department. This action was part of a plan for establishing more efficient and effective operations in an effort to better fulfill the Department's responsibilities to the people of Wisconsin. Most important in this change was the plan to have all field activities on a uniform five-area basis as shown on the map in this section. The change also activated the positions of area supervisors and two new departmental boards on publications and research. Better use of administrative assistants in various capacities and distribution of an area organization map and new administrative and divisional organizational charts were significant developments.

In carrying out Conservation Commission policies and the increasing administrative functions of the Department, 276 directives, technical specifications and informational letters were distributed during the biennium. Director's orders and memoranda totaled 157, general letters by division chiefs and administrative staff, 86 and technical specifications by individuals responsible for special functions, 33.

The administrative section of the Department includes, besides the Director and two Assistant Directors, the following positions and service sections: Administrative Assistant to the Director, Personnel Officer and his staff, Legal Counsel, Executive Secretary of the Forestry Advisory Committee, Research Coordinator, Administrative Assistant to the Chief State Forester, Assistant Secretary to the Conservation Commission and an Aviation Operation Consultant.

The Department's work, as indicated by the organization chart, was coordinated through eleven functional boards and an area board in each of the five areas. In addition, personnel matters were cleared through a Personnel Relations Advisory Board.

In conclusion, it should be pointed out that this two-year period was especially

fruitful in the field of cooperation with and between other public agencies on federal, state, county and community levels. Several cooperative agreements were prepared during this biennium and at the end of the period work was progressing satisfactorily on revision of the all-important Statement of Watershed Development Cooperation so it would be up to date and include two more federal agencies.

PUBLIC HUNTING AND FISHING GROUNDS

Game Management

The primary responsibilities of the game management division are to develop, maintain and perpetuate the wildlife resource of the state. To accomplish these major objectives, it was necessary to develop an administrative and organizational structure which will function efficiently in all parts of the state to handle the varied and complex activities. The division has a permanent staff of 86 supervisory and 70 non-supervisory personnel as well as additional seasonal personnel during periods of peak activity.

GAME REGULATIONS

Regulations for the harvest of game and fur are established by the Conservation Commission as an integral part of sound management of wildlife species. The objective of the division is to establish seasons which will yield the maximum opportunity to sportsmen commensurate with the biological needs and welfare of each species.

To attain this objective it has been necessary to develop population and range surveys to measure accurately the annual status of each species and to predict long-range trends. This information is translated into meaningful form for use by the public in participating in the functions and deliberations of the Conservation Congress. Because of the rapidly increasing number of hunters and the resultant heavy hunting pressures on most wildlife species, the division has attempted to keep pace by liberalizing harvest yields to the hunting public wherever possible.

PUBLIC HUNTING AND FISHING GROUNDS*

Land purchase for public hunting grounds began in 1927 when the Legislature appropriated $250,000.00 for the acquisition of Horicon Marsh. The program has been continued through the years and today a total of 152,505.52 acres of land have been approved for purchase.

Public Hunting and Fishing Grounds Summary

	1956–57	*1957–58*
Total units leased and purchased	202	220
Total acres leased	304,158	314,710
Total acres owned or approved for purchase	131,268†	152,505.52†

Costs of Acquiring and Operating State Public Hunting and Fishing Grounds

	1956–57	*1957–58*
Cost of land purchases	$151,505.00	$532,292.00
Cost of development, maintenance and patrol	470,854.85	517,940.34
Cost of damage claims	953.20	1,048.52
Cost of payments in lieu of school taxes	16,238.87	17,774.00

*Data are totals of fish and game management divisions and include all state-owned deer yards.

†Does not include 12,546.76 acres of state forest lands purchased originally by the game division for the sum of $219,292.91.

The first leased public hunting grounds was established in 1938 on the Deansville Marsh in Dane County. Today there

are 314,710 acres of leased public hunting and fishing grounds.

In total, there are 220 state-owned and leased public hunting and fishing grounds located in 67 of the 71 Wisconsin counties.

In addition to the above there are 4,494,114 acres of lands open to public hunting and fishing on national, state and county forests, private forest crop lands and State Land Commission lands.

During the biennium, approximately 41,652.52 acres of land were purchased at a cost of $683,797.00 as shown in the accompanying statistical summary.

WILDLIFE REFUGES AND CLOSED AREAS

Wildlife refuges and closed areas have been established to provide long and short term wildlife protection respectively in certain areas of the state in the public interest. The following table shows their status during the biennium.

REFUGES AND CLOSED AREAS

Refuges				*Closed Areas*			
Number		*Acreage*		*Number*		*Acreage*	
1956	*1957*	*1956*	*1957*	*1956*	*1957*	*1956*	*1957*
136	133	50,415	49,560	72	77	281,595	240,217

WINTER GAME BIRD FEEDING

The winter bird feeding program, confined mainly to pheasants, Hungarian partridge and quail, and in some instances to sharp-tail grouse, prairie chicken and turkey in central Wisconsin, is undertaken as an emergency activity, and not as a permanent substitute where natural foods are present or habitat development is given emphasis.

Game bird feeding has been confined mostly to southern or southeastern counties where food and cover has been greatly reduced under the present conditions of intensified land use and farming.

A summary of winter bird feeding by management area is as follows:

WINTER BIRD FEEDING

Area	*1956–57*		*1957–58*	
	Lbs. Fed	*Food Patches Number*	*Lbs. Fed*	*Food Patches Number*
NWA	20,760	10	7,837	
NEA	21,699		16,400	1
WCA	69,250	29	31,000	10
ECA	161,825	23	103,825	49
SA	19,390	37	71,450	33
Totals	292,932 (146.47 Ton)	99	230,512 (115.3 Ton)	93
No. of Counties	53		53	

LICENSED FARMS AND SHOOTING PRESERVES

During the biennium, many private citizens obtained game and fur farm licenses, which permitted the propagation and sale of wildlife. Muskrat farmers were in the lead, acreagewise, by licensing 47,791.43 acres, with the deer farmers second, accounting for 19,769.55 acres.

A new license was authorized by the State Legislature during the biennium which permitted individuals to exhibit wildlife. In addition to the type of licenses shown in the following table, the game division issued annually about 30 scientific certificates to collect wildlife and 25 permits to band birds and animals.

SUMMARY OF FARM AND SHOOTING PRESERVE LICENSES

	New in Biennium	*Total for 1956*	*Total for 1957*
Deer Farms	25	80	95
Muskrat Farms	26	388	375
Mink on Muskrat Farms	19	41	45
Beaver Farms	4	32	30
Raccoon, Otter and Skunk Farms	206	168	241
Game Farms (Game birds and animals)	288	585	704
Exhibit Licenses	1	0	1
Zoo Permits	19	25	29
Shooting Preserves	13	69	79

GAME HARVEST

Records of Wisconsin game harvested annually, showing the species and quantity of animals, upland birds, and waterfowl, are prepared for use of department personnel and others concerned in management work. Such statistical reports indicate the yield trends during the years, and serve as guides for future planning.

During the biennium, an estimate of more than 11 million game animals and birds were taken by hunters and trappers.

The total pelt value of trapped animals during the 1957–58 season was estimated to be $811,727.27, compared to a pelt value of $1,015,369.85 during the previous season.

The following table shows the game harvest during the biennium:

COMPARATIVE GAME HARVEST REPORT

	1956–57		*1957–58*	
Cottontail Rabbit	1,356,135		1,392,997	
Snowshoe Rabbit	72,254		117,325	
Jack Rabbit	13,844		22,142	
		1,442,233		1,532,464
Grey Squirrel	925,196		854,854	
Fox Squirrel	510,394		443,575	
		1,435,590		1,298,429
Pheasant	521,812		552,087	
Ruffed Grouse	645,191		546,765	
Sharp-tailed Grouse and Chickens	10,230		10,806	
Hungarian Partridge	37,942		38,514	
Bobwhite Quail	43,692		52,054	
		1,258,867		1,200,226
Woodcock	20,818		22,602	
Ducks	584,235		636,657	
Coot	161,465		133,683	
Geese	24,742		Increase	
		791,260		792,942+
Deer (Gun and Bow and Arrow)	36,829		69,891	
Bear	212		343	
		37,041		70,234
Muskrat	555,500		538,958	
Mink	37,771		34,025	
Skunk	6,181		3,027	
Weasel	23,770		8,673	
Otter	574		1,366	
Opossum	2,359		2,522	
Beaver	9,192		14,232	
Raccoon	47,302		-------	
		682,649		602,803
Red Fox	33,944		State	
Grey Fox	4,410		Bounty	
Coyote	1,786		ended	
Wild Cat and Lynx	323		7–1–57	
		40,463		
		5,688,103		5,497,098+
Biennium Total				11,185,201

DEER AND BEAR DAMAGE

Annually since 1949 there has been a Legislative appropriation of $40,000 to defray the costs of deer and bear damage. Since 1955, the statutes provided for the payments of damage to growing agricultural crops, orchard trees, nursery stock, apiaries, farm animals and poultry. Items for which deer damage were paid, were mostly commercial garden vegetables, hay, clover and alfalfa, and small grains. Almost half of the cost occurred in the Northeast Area.

Bear damage was paid for live stock (mostly sheep), apiaries, corn and orchards.

The following table shows the cost of deer and bear damage:

Fiscal Year	Deer		Bear		Total Cost
	Cost	No. of Claims	Cost	No. of Claims	
1956–57	$31,396.97	202	$2,897.37	33	$34,294.34
1957–58	25,474.94	212	6,790.35	84	32,265.19
	$56,871.91	414	$9,687.72	117	$66,559.53

GAME AREA MANAGEMENT, MAINTENANCE, AND DEVELOPMENT

One of the big jobs of the division is the improvement of game habitat on public and private lands. Habitat work is a never-ending task and includes not only positive accomplishments but the highly important job of preservation of existing game cover.

Brief descriptions including statistical summaries of habitat improvement are presented below.

Game Food and Cover

Habitat for wildlife is created by the planting of game food and cover species on public hunting and fishing grounds, selected watersheds and private lands.

Considerable extension service by game managers, including technical advice, was given to a large number of cooperative projects with schools, conservation clubs, 4–H Clubs and farmers. Game management personnel also participated in joint tree and shrub planting programs with the U. S. Soil Conservation Service and county agricultural agencies.

The Game and fish management divisions, during the spring of 1957 and 1958, supervised the planting of 4,827,-

This dike was built to create a wildlife flowage. Large amounts of earth must be moved on such a project.

573 trees and shrubs. Species planted were white pine, red pine, jack pine, white cedar, Norway and white spruce, black locust, white ash, wild plum, hawthorn, mixed crab, pea shrub, highbush cranberry, wayfaring tree, coral berry, ninebark, lilac, honeysuckle, black haw, buffalo berry, silky dogwood, grape, bittersweet, willows, and multiflora rose.

The planted trees and shrubs were not used for private ornamental and landscape purposes.

Fence Construction

On public and private lands, game managers supervised and constructed 3,471 rods of new fence. Fencing protects tree and shrub plantings for wildlife, food patches and existing good game habitat.

Food Patches

On state and private land, food patches totaled 3,092 acres. Crops used include corn, buckwheat, millet, rye, sorghum, etc. Food patches have value for prairie grouse, waterfowl, geese, and upland game.

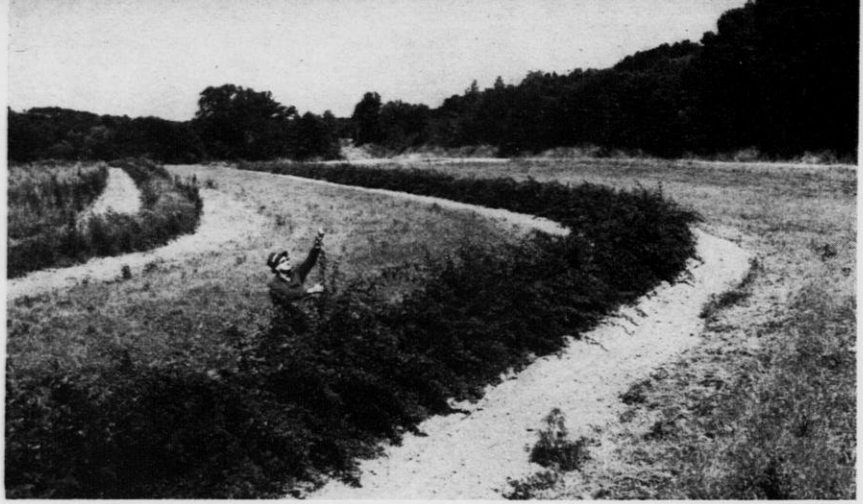
Trail Seeding

The program of trail seeding which was started more than ten years ago was intensified during the biennium with the seeding of 765 miles of woods roads on public forest lands in Wisconsin. Seed mixtures include legumes and grasses. The purpose of the activity is to keep woods roads open for hunters and to provide forest land game, deer and ruffed grouse primarily, with good feeding and nesting sites and desirable "edge".

Prescribed Burning

From very modest beginnings in the early 1940's, this function has now reached the point where it is one of the best and cheapest game management tools. During the biennium more than 44,018 acres of land were prescribed

A flowage such as this improves conditions for ducks, geese, furbearers, and other aquatic wildlife.



Multiflora rose plantings can make "living fence" where adapted, as in the southern one-third of Wisconsin. The cover is valuable for game.

burned to maintain plant successions in a desirable stage for prairie grouse, waterfowl and upland game.

Firebreak Construction

In the practice of prescribed burning, it is necessary that complete fire control exists around the area to be burned. Therefore, game managers constructed 126 miles of new firebreaks. The Forest Protection Division has been cooperating with the game division on this work.

Flowage Construction

During the biennium, new flowages were constructed ranging in size from a

Level ditching creates habitat for muskrats and ducks. Unlike drainage, it leaves marshes wet.

During the biennium, 29 lots were built to provide sportsmen with safe locations for parking cars.

few acres to several hundred acres. Flowages have multiple-use value for all types of wildlife, for fishing, hunting and associated recreational use. Although budgets for this activity were limited, 24 flowages were constructed with a total acreage of 2,740.

Clearing

In many situations, it is impossible or impractical to use prescribed burning as a management device to revert plant successions to an early stage. Therefore, various clearing methods, including use of hand tools, bull-dozers and mechanical

Limited clearing can benefit game. Here, on a state wildlife area, the opening will grow plants of value to wildlife. Piled brush makes excellent rabbit cover.

cutters, and herbicides are applied by game managers on public forest land and state-owned land. During the biennium 6,981 acres were cleared.

Access Road Construction

Access to Wisconsin game populations in many areas of the state continues to be a problem. This is especially true in the large blocks of forest land in northern Wisconsin. To provide access, 50 miles of road were built and maintained by game managers throughout the state.

Parking Lots

Parking of automobiles on public hunting grounds and in many areas on public forest lands in Wisconsin is becoming an increasingly serious problem. To meet this need, game managers constructed 29 lots where sportsmen may park their cars with safety.

Beaver Complaints

The increasingly difficult job of keeping abreast of statutory responsibilities on the control of beaver is illustrated by the fact that the game division answered 1,706 requests for action.

Level Ditching and Diking

Since the findings of the fur research project at Horicon Marsh relating to the values received from level ditching (and diking), game managers have used this as a tool to improve habitat conditions on marshes throughout the state. During the biennium 414,480 feet of new level ditching and diking was accomplished. This activity is of value to furbearers and to waterfowl and provides desirable variety and edge in what would otherwise be marsh monotypes.

Income From Sale of Products

By-product income on game management lands during the biennium approximated $94,765.00. The major part of this income resulted from the sale of 14,537 cords of timber and pulpwood for a net return of $71,179.00. Other producing income which accounted for the balance of $23,586.00 were the sale of surplus buildings, gravel deposits, moss, marsh hay, Christmas trees and muskrat share-trapping on the Horicon Marsh Wildlife Area.

SUMMARY—GAME AREA MANAGEMENT, MAINTENANCE, DEVELOPMENT

Activity	*1956–57*	*1957–58*	*Total*
Game Habitat Food and Cover (stems)	2,700,000	2,127,573	4,827,573
Fence Construction (rods)	1,760	1,711	3,471
Food Patches (acres)	1,583	1,509	3,092
Trail Seeding (miles)	323	442	765
Prescribed Burning (acres)	21,542	22,476	44,018
Firebreak Construction (miles)	59	67	126
Flowage Construction (acres)	1,208 (9 units)	1,532 (15 units)	2,740 (24 units)
Clearing (acres)	3,465	3,516	6,981
Access Road Construction (miles)	12.5	50.5	63
Parking Lots (number)	3	26	29
Level Ditching and Diking (feet)	36,220	378,260	414,480
Beaver Control (No. complaints)	414	662	1,076

By-Product Income	*Total (1956–58)*
Timber and Pulpwood	$ 71,179.00
Gravel	313.50
Buildings	471.50
Moss	15,782.00
Marsh Hay	1,046.00
Muskrat Share-Trapping	3,327.00
Christmas trees	2,646.00
Total	$ 94,765.00

COOPERATION–OTHER AGENCIES

During the course of each biennium, division personnel are cooperating with numerous other state and federal agencies. Special mention should be made of the fact that initial contacts with the Highway Commission relative to planting of trees and shrubs and maintenance of desirable vegetation along road rights-of-way appear to be promising. The Highway Commission has also expressed a cooperative attitude towards the Department suggestion that possible sites where impoundments can be created when a new road is constructed should be carefully studied and if feasible, such impoundments completed. The division is making a strong effort to put into effect the policies and principles as laid out by the Interagency Committee on Noxious Weed Control and Brush management. Although the results of this activity are difficult to evaluate, it appears that the long-range prospects are excellent.

A more intensive effort was made during the biennium to interest Soil Bank cooperators in wildlife practices on their farms. Although the results of this activity are not clear, it appears that some positive wildlife benefits were achieved through this effort. Somewhere between one-half and three-quarters of a million acres of Wisconsin crop land will be under Soil Bank contract by 1959.

In conjunction with agricultural activities, mention should be made of the fact that the division is continuing to work with the state Agricultural Stabilization and Conservation Committee and local ASC committees to utilize the Agricultural Conservation Program to the best advantage of game management.

Other agencies with whom the division cooperates include the Soil Conservation Service, County agents, the State Drainage Engineer, the U. S. Forest Service, the U. S. Bureau of Sport Fisheries and Wildlife and the University of Wisconsin.

It is difficult to evaluate fully the success of the approach to interagency cooperation and agreement, but it is the feeling of the division that this avenue offers game managers their greatest opportunities for achieving wildlife conservation on private land in Wisconsin.

FEDERAL AID IN FISH AND WILDLIFE RESTORATION ACTIVITIES

The Federal Aid in Wildlife Restoration Act of September 2, 1937, better known as the Pittman–Robertson Act, was designed to help check the depletion of the nation's wildlife and stimulate its restoration by state game departments. By the same token, the Federal Aid in Fish Restoration Act of August 9, 1950, was devised to help the states solve sport fishery problems. Both Acts are currently administered by the Bureau of Sport Fisheries and Wildlife. The states share in the benefits of both Acts by assenting to its legal provisions and by passing laws of its own to conserve fish and wildlife, including prohibitions against diverting fish and game license revenues to any purpose other than the administration of the state Fish and Game Departments.

From a tax which is levied at the source of manufacture on sporting arms and ammunition, and on certain types of fishing gear and equipment, the United States pays up to 75% of the cost of work on approved fish and game projects. For the 1956–58 biennium, Wisconsin's approved federal aid projects comprised functions dealing with coordination, research, development and

operations and land acquisition. The coordination function is the administrative spearhead of the entire program and it "coordinates" the other functions necessary for efficient management of fish and wildlife resources. Many of the accomplishments of the game division on wildlife development and land acquisition were financed with P–R funds. The bulk of the D–J money was used for stream habitat improvement and fish research.

Wisconsin's federal aid approved functions with their respective costs for the 1956–58 biennium are summarized as follows:

FISCAL YEAR EXPENDITURES

Function	*1956–57*			*1957–58*			*Grand Total*
	Game (P-R)	*Fish (D-J)*	*Total*	*Game (P-R)*	*Fish (D-J)*	*Total*	
Coordination	$ 22,189	$ 10,107	$ 32,296	$ 22,681	$ 13,496	$ 36,177	$ 68,473
Research	135,600	91,435	227,035	148,169	68,493	216,662	443,697
Development and Operations	222,089	213,348	435,437	164,127	203,180	367,307	802,744
Acquisition	152,713	26,312	179,025	548,786	21,478	540,264	749,289
Total	$532,591	$341,202	$873,793	$883,763	$306,647	$1,190,410	$2,064,203

STATE GAME FARM

The State Game Farm located at Poynette, Wisconsin continues to attract thousands of visitors annually who are particularly interested in its bird and animal exhibits, tree and shrub plantings, and picnic facilities.

Although production and distribution of game birds is the primary function of the game farm, field personnel in game management districts concerned give considerable assistance to conservation clubs and individuals in pheasant management methods under the cooperative rearing and stocking program.

The major activities of the farm are as follows:

PRODUCTION AND DISTRIBUTION

	1956–57	*1957–58*	*Total*
Eggs Produced			
Game birds	438,585	473,346	911,931
Hungarian partridge	503	245	748
Total	439,088	473,591	912,679
Eggs Set			
Game birds	381,976	388,937	770,913
Hungarian partridge	503	179	682
Total	382,479	389,116	771,595
Eggs Shipped to Cooperators			
Game birds	28,017	26,060	54,077
Chicks Hatched			
Game birds	294,687	298,006	592,693
Hungarian partridge	302	88	390
Total	294,989	298,094	593,083
Chick Distribution			
Chicks to cooperators	212,455	216,599	429,054
Chicks in farm brooders	79,635	76,634	156,269
Chicks to research	220	600	820
Total	292,310	293,833	586,143

Stocking

Pheasants liberated from			
Egg program	16,928	10,949	27,877
Day-old chick program	177,026	180,831	357,857
Farm: 16–20 week old	45,304	50,428	95,732
Mature pheasants	25,549	28,268	53,817
Total	264,807	270,476	535,283

RESEARCH

Five wildlife research projects are conducted with Federal-Aid-in-Wildlife Restoration Funds under the Pittman–Robertson Act. Their general functions are:

1. To evaluate the effects of land use changes on wildlife and to develop methods of improving wildlife habitat;

2. To obtain data on the population status of all game and fur species, and to investigate all factors affecting populations, including an evaluation of hunting regulations;

3. To make recommendations for game management based on research findings;

4. To integrate Department wildlife research with other programs concerning wildlife and wildlife habitat, such as the U. S. Fish and Wildlife Service, U. S. Soil Conservation Service, U. S. Department of Agriculture, U. S. Forest Service, University of Wisconsin, other Wisconsin state agencies, and other state conservation departments;

5. To make research findings public.

Findings of research projects were published regularly in quarterly progress reports and many additional reports were submitted for use of the game management division's supervisors. "The Wisconsion Conservation Bulletin", departmental news releases and several technical journals were other outlets for research findings. Major completed studies were

written up in Technical Wildlife Bulletins. During the biennium two numbers in this series of bulletins were published: "An Evaluation of Artificial Mallard Propagation in Wisconsin", and "A Guide to Prairie Chicken Management". The latter won an award from the Wildlife Society as the outstanding publication on terrestrial wildlife management for 1957.

Several research studies were conducted by the University of Wisconsin, using funds made available by cooperative agreement with the Wildlife Research Section. These included studies on ecology of northern Wisconsin deer yards, use of herbicides in game food and cover production, pheasant physiology, deer populations in the Bad River Indian Reservation, and waterfowl banding.

Section personnel participated in several regional wildlife research planning and study groups. These included the Technical Committee of the Mississippi Flyway Council, the Great Lakes Deer Group, and the Midwest Pheasant Council. Cooperative research on northern Wisconsin game management problems was done with the Northern Lakes Forest Research Center, Wausau, a branch of the U. S. Forest Service.

Wildlife Pathology Research, This project worked with public health and livestock sanitation agencies and did independent research on such diseases as rabies, leptospirosis, and tularemia. Autopsy of wildlife specimens suspected of carrying diseases, blood serology, and parasite studies were other project functions. So little is known of wildlife diseases and their relation to domestic animals that work of this project was primarily of an exploratory nature.

Game and Range Survey. The work of this project included the design and evaluation of game and game habitat surveys needed for management and harvest regulations. One of its functions was to coordinate the making of, and to analyze the results of all surveys made by game managers and other non-research personnel. All of the wildlife species classed as game or fur, plus such other surveys as mast and berry crops, hayfield cutting, standing corn in winter, fur buyers' questionnaires, and development of census techniques were included. A survey and mapping of all wetland areas in southeastern counties was completed. This project also provided statistical design and analysis services for other games and fish research projects.

Wetlands Game and Range Research. This project has units to study waterfowl and fur. Major efforts included investigations of restoration and management methods for ducks, geese and muskrats with emphasis on habitat problems. Waterfowl census work was carried out throughout the year to follow trends in the waterfowl populations as part of a continuing nationwide program coordinated by the U. S. Bureau of Sport Fisheries and Wildlife. A significant accomplishment was the development of a muck pump which can be attached to any outboard motor which will remove silt and other debris from level ditches, springs, streams, or other shallow water areas.

Farm Game and Range Research. Primary emphasis of this project was directed toward an evaluation of pheasant stocking. Other studies were concerned with pheasant habitat management, including the importance of wetlands. More efficient methods of obtaining the maximum return to the hunter from artificially propagated pheasants have resulted from the recommendations of this project.

Forest Game and Range Research. Units within this project are concerned with deer, ruffed grouse, prairie grouse, and beaver, otter and black bear. Forest game habitat relationships were emphasized, with particular attention paid to

means of integrating game management with existing forestry and other forest-area land-use practices. Recommendations from this project were important factors in setting hunting seasons for deer, ruffed grouse, and sharp-tailed grouse, plus beaver and otter trapping seasons. Management plans for the grouse species were prepared. Extensive studies of otter food habits and population distribution, plus preliminary work on black bear populations, were started.

COSTS FOR RESEARCH PROJECTS

Project Name and Number	*Total Costs*	
	1956–57	*1957–58*
Wildlife Pathology Research W-24-R	$ 8,028.00	$ 9,353.00
Game and Range Survey W-25-R	18,376.00	16,940.00
Wetlands Game and Range Research W-77-R	28,442.00	33,134.00
Farm Game and Range Research W-78-R	30,992.00	32,569.00
Forest Game and Range Research W-79-R	49,762.00	56,173.00
Total	$135,600.00	$148,169.00

Fish Management

Simply stated, the objective of this division is fish management. And what is management? Management is giving Wisconsin's citizens and vacationists the opportunity to harvest the fishery resource in amounts and in ways which will give optimum sustained yields year after year. To meet this objective here are the division's broad tasks: (1) provide fishing opportunities for anglers, (2) develop regulations for satisfactory harvest, (3) improve on or preserve the fish's habitat, (4) and maintain balanced fish populations.

These tasks have multiple solutions. For example, fishing opportunities can be provided by building new lakes, acquiring public ownership of the streamside or lake shore for access, and building brush shelters to concentrate the small fish crops in clear infertile lakes and in some few cases controlling excessively thick weed beds to create openings. Balancing a fish population may require intensive netting to control a rough fish population, partial poisoning to remove excessive undersized panfish, protection of predator fish by regulation or stocking of depleted species.

To meet these diverse needs on the 915,036 acres of inland lake area, 8,930 miles of trout stream, the rivers and the 6,439,700 acres of Great Lakes within Wisconsin's boundary requires an organization possessed with technical know-how, experience, and geographic distribution. Increasing fishing pressure results in a greater harvest of fish and necessitates an intensification of research and management, and a greater utilization of previously unproductive waters.

The Division, now consisting of 214 permanent employees, has found it necessary to take a series of steps toward decentralization of the line organization and creation of a stronger staff. Fish management was one state-wide organization until 1948. Then three area offices were established and these were later enlarged to five area offices in 1951. In 1956 the Commission granted the division approval to further improve and intensify its services by establishing district offices. Each of the 18 districts was to serve about two to six counties or its equivalent in a large body of water. At the same time staff services were provided to furnish technical direction and research increased for guidance.

The fish management expenditures totaled $1,580,069.81 for all functions in fiscal 1956–57 and $1,745,459.71 in 1957–58 exclusive of retirement and other employer contributions.

STAFF SERVICES

The division has technical responsibility for operation of the private fish hatchery licensing law (Wisconsin Statute 29.52). Applications are processed and investigations and hearings conducted. There is also the continuing responsibility of reinspection to conform to the law. Private fish hatcheries now number over 600. Other administration problems are issuance of permits for private fish management (Wisconsin Statute 29.513) and permits for private stocking (Wisconsin Statute 29.535).

An important staff service is guiding

fishing regulations from conception to administrative law, finalized with the Governor's signature. In brief this process consists of draft of a proposed regulation by field personnel, generalization for state-wide use by the fish management board, adaptation for effective enforcement by the law enforcement board, tentative approval by the Commission, public hearings, modification to conform to management needs and public acceptance, Commission approval and Governor's signature.

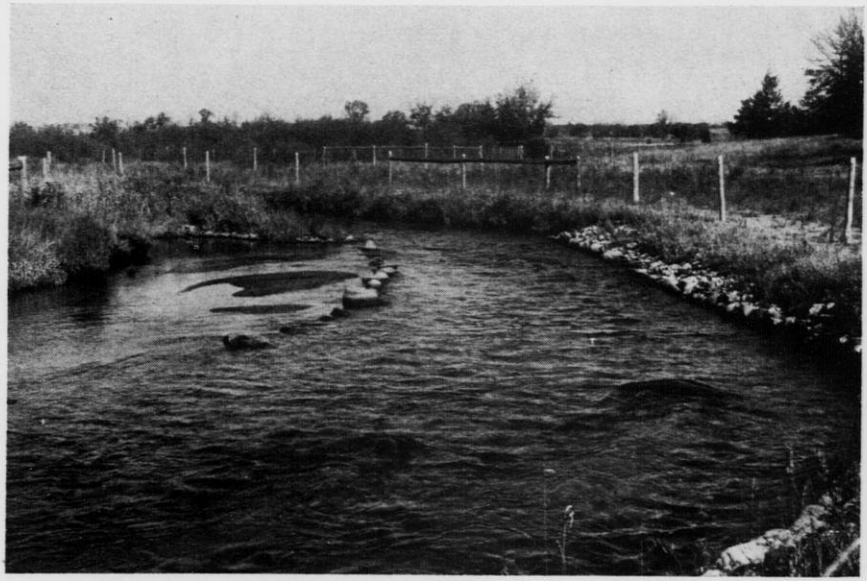
Staff services provide technical control for data collection on surveys, lake mapping, land acquisition, habitat improvement devices, stream bank fencing, and they to a large degree, bear responsibility for training of new personnel and infusion of and spread of new ideas, planning and preparation of statistics.

An informational service provides useful public information necessary to achieve good fish management. Eighty-six articles dealing with fish management appeared in the Conservation Bulletin. A number of technical bulletins were written and published.

HABITAT IMPROVEMENT

The fish habitat improvement section has a two-fold purpose: Maintaining and/or increasing fishing opportunities for anglers, and maintaining and/or improving living or spawning conditions for fish. Specific functions are acquisition and leasing of land, building improvement devices, fencing, planting trees and shrubs and promoting soil and water conservation.

Some typical specific tasks on streams are fencing stream banks to protect them from cattle, building deflectors to create holes in otherwise flat water, repair of



This is one example of stream habitat improvement work. Fences protect the banks. Deflectors and rip rapping narrow and deepen the stream.

LIST OF STATE DEMONSTRATION STREAM HABITAT IMPROVEMENT PROJECTS TO JULY 1, 1958

Watershed–County ** Unit Completed*	*Acres Leased (*) Owned (**)*	*Length of Waterway Controlled (Rods)*	*Trees Planted*	*Shrubs Planted*	*Fencing (Rods)*	*Channel and Bank Devices*	*Stabilization Lineal Feet* Square Feet***
Area I							
*Weirgor River	14*						
Sawyer County	1,820**	3,000	16,100	3,000	125	667	1,350*
*Devils Creek	139*						
Rusk County	80**	810	16,000	2,000	2,400	45	
*Beaver Brook							
Washburn County	789**	1,600	8,000	5,000		132	
Sand Creek							
Chippewa County	400*	1,845	43,000	2,150	4,245	376	1,432*
*Squaw Creek Barrier							
Sawyer County	Easement (Northern pike barrier on Squaw Creek)						
Elk Creek							
Chippewa County	23*	654	10,400		1,239	2	1,010*
McKenzie Creek							
Polk County	2,370**	1,120				78	1,436*
Eddy Creek	80*						
Sawyer County	183**	600	16,000	0		40	
Area II							
*So. Br. Oconto River							
Oconto County	635*	3,076	289,066		4,549	366	61,437**
*Prairie River							
Lincoln County	105*	2,727	61,294	800	3,766	140	1,197**
*Plover River	587*						
Marathon County	140**	1,651	27,840		5,227	209	
Plum Creek							
Vilas County	6*	470				15	
Area III							
*Kinnickinnic River							16,355*
Pierce County	315*	4,672	58,810	5,875	8,069	331	15,000**
Bohemian Valley Watershed	36*	899			985	8	10,238*
Vernon County–La Crosse County							
Elk Creek							
Dunn County	60*	413			324		

LIST OF STATE DEMONSTRATION STREAM HABITAT IMPROVEMENT PROJECTS TO JULY 1, 1958–(Continued)

Watershed–County ** Unit Completed*	*Acres Leased (*) Owned (**)*	*Length of Waterway Controlled (Rods)*	*Trees Planted*	*Shrubs Planted*	*Fencing (Rods)*	*Channel and Bank Devices*	*Stabilization Lineal Feet* Square Feet***
Area IV							
Willow Creek	922*						9,943*
Waushara County	429**	4,972	129,724	98,620	3,179	2,189	6,844**
*Radley Creek							
Waupaca County	5*	132	1,510	3,100	185	22	4,050**
*Peterson Creek							5,929*
Waupaca County	74*	2,541	11,840	10,855	2,636	1,876	1,200**
Ten Mile Creek							
Portage County	10.5*	445	2,925	----------	963	135	313*
Carpenter Creek							
Waushara County	9.0*	240	600	200	290	3	----------
Big Roche-A-Cri							
Waushara County	13*	880	----------	----------	183	5	850*
Trout Creek							
Waupaca County	13*	960	----------	----------	----------	----------	----------
Area V							
*Black Earth Creek	73*						
Dane County	3.9**	3,015	284,303	77,095	4,927	215	----------
Dell Creek	227*						
Sauk and Juneau Counties	642**	3,522	540,400	63,750	4,729	91	4,550*
TOTALS	3,746* 6,457**	40,244 125.8 mi.	1,517,412	272,445	48,021 150.1 mi.	6,945	53,406* 89,728**

eroded banks, establishing bank vegetation and cover, and improving springs. Leasing or purchase of stream frontage assures fishermen of fishing opportunities and gives eroding banks protection as natural vetegation grows up. Purchase also provides hunting opportunities.

There have been 28 demonstration stream habitat improvement projects initiated since inception of the program. Work was completed on ten projects. During the biennium, an additional 1,327 acres were leased and 3,040 acres purchased. Thirty-three additional miles of waterway were added to stream frontage with public fishing assured. Construction work included 19 miles of fencing and building 1,382 devices. The division has 40 cooperative projects in existence and many more in the planning process.

On lakes there are less opportunities to improve the habitat for fish and more chances for improving opportunities for fishing. An important winter activity has been building 1,288 fish shelters of logs and brush placed in 88 lakes. They are trucked out on the ice and sunk at the chosen site by cutting a hole in the ice. They concentrate sparse fish populations in clear lakes and better angling opportunities. Resort associations and sportsmen's clubs assisted with this work on 43 lakes. The site for a new trout fishing pond was purchased in Monroe County and plans for construction of an impoundment have been drawn.

The division feels that population pressures and land values will close off many waters to public use and result in stream and marsh destruction unless provision is made for some public lands with lake or stream frontage. The first steps were taken toward formulation of a five-year plan for acquisition of key lands.

LAKE RENOVATION AND MANAGEMENT

An increasingly common and effective management recommendation is lake renovation. Poorly producing waters troubled with rough fish or stunted panfish populations can be made productive of desirable fish most economically by killing existing populations with chemicals and starting over. Chemicals for a medium-sized lake will cost less than $100.

Eight of the 30 rehabilitation projects completed during 1957 and 1958 were carried out on the small, landlocked, infertile, kettle-hole lakes which were converted to trout. Trout grow rapidly, can be readily caught and are easily managed. A common problem in this type of management arises from restocking of unwanted species. They increase rapidly in numbers and cause a decrease in trout growth.

Twenty-two projects were carried out on larger lakes and mill ponds mainly to meet the rough fish problem. Because of large size of the water body and uncontrolled water supplies, we are less certain of complete success. Mill ponds are ordinarily drawn down to the stream bed and the toxicant applied to the stream. Restocking with warm water species follows.

Partial poisoning is the latest measure to receive trial. Application of a quick-acting toxicant on a portion of a lake was tried to combat concentrations of hard-to-catch rough fish and a stunted panfish population. The rough fish control at Lake Eau Galle was notably successful, but results from this type of management on the stunted panfish at Mathews Lake are not clear.

On some experimental waters, a permit system makes it possible to maintain accurate records on fishing pressure and the fish harvest.

RESEARCH

Progress is based on exploring and testing new ideas for future application, and like all progressive organizations we are building a strong research section. The section consists of the chief biologist, group leaders for warm water research, cold water research and disease and nutrition.

Projects which are mostly management research are administered by our own staff. Problems which tend to be basic research are assigned to the University and supported by Department funds. In 1958 there were eight projects in operation.

Murphy Flowage and Muskellunge Project

The first part of this project was designed to test the effects of liberalized (no size or bag limit, or closed season) on a fish population in an artificial impoundment. This required that the Flowage be designated an experimental lake where all anglers could be required to obtain a permit and report their catches to a checking station.

From this project, in operation since 1955, a number of findings are beginning to emerge. The yield of all species has increased in each of the first three years and with no diminution of fishing quality. The yield ranged between 22.3 and 47 pounds per acre. About 80 per cent of the catch by number are bluegills, but they comprise only 50–60 per cent of the weight. The normal bag limit (5 fish) would have had practically no effect on the catch of game fish; however, the bag limit would have reduced the catch of panfish by 11.9 per cent. The season limits would have had the greatest effect on the catch of game fish, reducing the largemouth bass catch by 32.3 per cent and the northern pike catch by 13.9 per cent. The growth rate of northern pike is rapid, with most two-year-old fish measuring between 19 and 24 inches. Northern pike seem to have the highest mortality rate to angling of any species. About forty per cent of the preseason stock are caught.

Some findings on muskellunge were: Muskellunge fingerling showed a preference for sucker forage over fairy shrimp, an important finding for successful rearing. Spawning adults returned to the same locality three years in a row. Migra-

tory tendencies, as observed by recapture of marked fish, were greater than previously believed: one fish traveled 23 miles. In a comparison of the feeding habits of muskellunge and northern pike it was noted that muskellunge prefer foods that display motion while northern pike will take relatively motionless animals such as worms and crayfish. No important difference in the growth of males and females was noted. Insufficient time has elapsed for returns on stocked fingerlings which were marked.

Five Lakes Project

This is another checking station operation, located in Vilas county, which has been operating for 12 years. The three lakes on which the most work and data collection has taken place are Escanaba, Nebish and Pallette. The former is dominated by a walleye-perch population and the others by bass and panfish.

In the first eight years conclusive evidence was assembled showing that angling under liberal regulations did not hurt the fish population. Other factors governing the survival of young were more important. In 1954 direction of the project was changed to evaluate other management practices. Forty-eight thousand three hundred marked walleyes were stocked in Escanaba during a year with poor reproduction and their contribution to the creel observed. The stocking was made at the rate of 166 per acre, a very intensive rate. Findings were as follows: About 15 per cent of the number stocked survived to catchable size. The stocked walleyes comprised about 35 per cent of the harvest when they became large enough to enter the creel. Also the rate of exploitation of catchable and desirable sized fish is about 38 per cent. The normal fish association dominated by walleyes and perch has been wracked by the upsurge of pumpkinseeds and northern pike in numbers never before observed.

Lake Winnebago Studies

Present objectives of this project are an evaluation and improvement of the drum control program on Lake Winnebago and formulation of a management plan for the long-lived, slow-growing sturgeon in the entire Lake Winnebago system.

Drum observations were initiated in 1953 prior to a period when the harvest of drum was increased over 800 per cent (1957). Records show, although not conclusive yet, that the condition (weight relative to length) improved and the survival of the young of game fish improved. Experimental use of a trawl for drum fishing proved successful enough to warrant outfitting a boat especially for this purpose.

Sturgeon studies have indicated overexploitation took place on two of the smaller lakes in the watershed. This resulted in closed or restricted seasons on these waters.

Bass Studies

The original objectives of these studies, to determine the effects of intraspecific competition between carp and game fish and to determine the effects of liberalized regulations on a largemouth bass population, were fulfilled and a final report is being written. Some conclusions were that large carp populations reduced the survival and growth of young largemouth bass. Reproduction and survival of young carp were not affected by density of the adults. The same amount of young carp were derived from low standing crops as high standing crops of adults.

The early season on largemouth bass allowed a greater harvest of large fish but creel censuses and population estimates told of a low rate of exploitation approximating 20 per cent. An exceptionally large year class, somewhat slower growing, was responsible for the dispro-

portionate number of sublegal fish at the beginning of the project.

Field work on this project is now being shifted to a study of the smallmouth bass in Lake Geneva and in the experimental ponds, and a phase of walleye stocking evaluation. Initial finding noted was a failure of smallmouth bass reproduction during the cold spring of 1958.

Lawrence Creek

The Lawrence Creek project aims to evaluate the effect of different angling regulations on a native brook trout population. As in the Murphy Flowage and Five Lakes project a permit system and checking station are integral to success. Basic plan of operation for the first three years was to provide a refuge on the upper end and maintain the six inch size and ten bag limit elsewhere.

Tally of angling statistics showed the bag limit affected few anglers and would have reduced the total catch by only nine per cent. Angling harvest amounted to 31.2 pounds per acre and comparatively low standing crops remained each fall to be renewed by fall, winter and spring recruitment and growth increments. In the refuge portion the natural population built up to 262 pounds per acre by 1957, 2½ times the fished portion. But in 1958 the refuge population collapsed, returning to 173.9 pounds per acre. Collapse was caused by a failure of reproduction.

In 1958 new regulations were imposed providing a nine inch minimum size and a five bag limit. Previous observations indicated this size would provide the largest biomass.

We anticipate much guidance in trout management from this project. To date we have learned that anglers can and do crop a very high percentage of the eligible trout—too many for maintenance of a good population producing stable annual crops. We have also learned to what levels a trout population will build up through operation of the refuge.

Habitat Evaluation

The intent of this project is to evaluate the work being done on streams in the habitat improvement program. The plan of operation consists of collecting and evaluating data on two nearby demonstration streams for a period of 2–3 years to establish a base line and then returning about 2–3 years later, after improvements have taken place, for further observations.

The first phase, centered on Black Earth and Mt. Vernon Creeks, was completed in 1956 after 3 years of observations. The second phase was initiated in 1957 on Big Roche–A–Cri Creek in Waushara and Adams counties and MacKenzie Creek in Polk county. Data collected on fish include a twice yearly estimate of the population, partial creel census, assessment of natural reproduction, and growth of trout. In addition data is gathered on stream flow, silt load, and water quality and characteristics.

The greatest reward from this study to date has been a greater appreciation of trout ecology. Recommendations on habitat improvement flow from this. Trout want gravel, and gravel of a certain size, to build their nests. Water must have moderate temperatures throughout the year for reproduction and good growth. Streams which are too shaded have poor food production. Sluggish waters are much more productive of forage fish, particularly suckers, than trout. As a result of these studies better selection of streams for improvement is possible, and the actual needs of trout can be met more accurately with improvement devices.

Pathology and Nutrition

The first responsibility on this project is disease prevention and treatment. A continuous on-call technical and drug supply service is maintained. All serious diseases were effectively brought under control in the 12 state trout hatcheries

except for an unknown disease affecting brown fingerling at Wild Rose and a kidney disease of fingerling brook trout at Westfield which defied known or experimental treatment measures.

A long range objective of this project is to prescribe population levels which can be maintained in a hatchery by a certain flow of water. The first step has been a chemical analysis of incoming and outgoing water at each hatchery. Initial observations did not reveal any serious overload of metabolic waste products, and they revealed there was plenty of buffering to counteract waste concentration.

Nutrition studies were aimed at broadening and improving the use of pelleted foods. Past-trials have shown fingerling, yearling and adults have prospered on pellet rations. Now how about fry? For greatest success with brook trout fry, liver had to be fed first and then they could be converted to the dry ration. For brown trout the dry diet pellet proved inadequate.

In another phase of study, the adaptability to life in the wild of hatchery-reared fish on different diets was tested. It was found that the co-efficient of condition of all hatchery-reared fish dropped rapidly but this was offset by better coloration and firmer flesh.

University of Wisconsin Cooperative Projects

The sum of $93,237.71 was paid the University to finance projects dealing with the ecology and physiology of fishes during the last biennium. Brief summaries of these projects follow.

The project dealing with the biology of trout and bass in artifically alkalized bog lakes gave leads on the causes of mortality of recently stocked trout. Mortalities were density dependent and declined when smaller populations were present. In another phase of this project dynamics of the air lift technique for lake circulation were worked out. Bubbling of compressed air from the bottom of winterkill lakes will melt ice and satisfy a high BOD quite economically. It also has prospects of contributing to lake turnover and fertilization.

The study of the yellow bass fishing in Lake Wingra revealed the subtle ecological interrelationships which govern the rise and fall of fish populations. Following intensive carp control, yellow bass growth and abundance declined while bluegill and bass growth increased. For four consecutive years there has been an insignificant carp hatch.

A study of the white bass ecology and life history in Lake Mendota has come up with some basic leads on guidance mechanisms for fish. These fish used the sun and landscape features to guide them to spawning grounds. Some evidence of two separate populations was gleaned from morphological differences and recapture of marked fish.

Observations were made on the distribution and movements of fish in the winter with the use of an echo sounder. Generally most fish lingered 3–25 feet off the bottom. There was a period of maximum activity in the lower half of the water mass from 11 a.m. to 2:30 p.m. followed by an afternoon low. Complex environmental and behavioral factors do not permit an isolation of factors.

Much basic research is necessary to place electro-fishing and limnological study on an efficient basis. Research talent was devoted to construction of a spectrophotometer to measure underwater light and a resistivity meter to measure electric current. The efficiency of a shocking unit is dependent upon the amount of electrolytes in the water, so if the current can be conveniently measured the shocking unit can be rigged accordingly. Development of gear is only half the research on fishing methods. The other half concerns behavior of the fish. Laboratory experiments indicated carp exhibited a greater awareness of a net and ability to escape than other species.

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O'Donnell, D. J.
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Stevens, Richard I. and John R. Truog
1957. Comparison of Dried Yeasts, *Candida utilis* and *Saccharomyces cerevisiae,* as Supplements in a Diet for Rainbow Trout. Trans. Amer. Fish. Soc., Vol. 86 (1956), 1957.

Threinen, C. W.
1958. Life History, Ecology and Management of the Alewife. Pub 223, Wis. Conservation Dept., 8 pp.

SURVEYS AND INVESTIGATIONS

This function may best be summarized by asking, "What is the status of fish populations in our many lakes and streams, and how are they affected by the various management measures? Should this water receive a stocking for therapy or shouldn't it? Should the entire fish population be rehabilitated?"

These and many other questions are answered by the practitioners of fish management, fish managers and biologists, in the course of their investigations of problems. For the five area biologists and fourteen district fish managers this is a major activity. The immediate product of this work is a "patient" file on all the waters within a district or area.

A summary of a typical year of survey operations will be about as follows: Shock all or parts of 35 streams. Test net or boom shock 160 lakes. Collect thermochemistry, morphological and edaphic data on 30 lakes and streams. Gather creel data on 40 lakes and streams. Map 60 lakes. In addition there are many other investigations which concern water levels, vegetation problems, fish mortalities, private fish hatcheries, etc. which will probably number 100.

Through extensive investigations we have become cognizant of the stunted panfish populations and we recognize it as our number one problem. A correlative problem is maintaining sufficient game fish populations to keep panfish under control. Types of lakes which need therapy and can be converted to trout are isolated. After completion of a survey a report is written and recommendations for management made. Survey results and management recommendations are reviewed at an annual fish management meeting with representatives of each county.

ROUGH FISH CONTROL

Four permanent stations deal with the rough fish problem and they are assisted by auxiliary services at area headquarters and Lake Delton. They are located at Calumet Harbor on Lake Winnebago, Horicon, McFarland at Lakes Waubesa and Kegonsa, and Newville on the Rock River near Lake Koshkonong, points central to problem waters. Also participating in rough fish control are 20 commercial fishermen who have been given contracts to fish rough fish only in specified waters at specified times. The contract operations are concentrated on large waters where large stocks of rough fish occur. Eight are located on Lake Winnebago and tributary waters.

The biennium saw further improvements in fishing gear which have made crews more efficient. The increased efficiency becomes evident when one observes that four crews today catch as much or more fish than eight crews did ten years ago. An important aid has been construction of nets out of new, light and strong synthetics. Other improvements to the fishing gear have been addition of three steel-hulled launches, construction of steel barges, better loading devices, steel pontoons for hauling cribs and better and larger tank trucks. One launch was rigged for trawling operations. Building additions completed have been a garage and office at Newville, new garage at McFarland, and new garage and office at Calumet Harbor. The garages have given shelter to vehicles which formerly stood outside, and have provided enclosed net repair spaces.

Total poundage of rough fish removed during the biennium by state and contract crews from the inland waters is

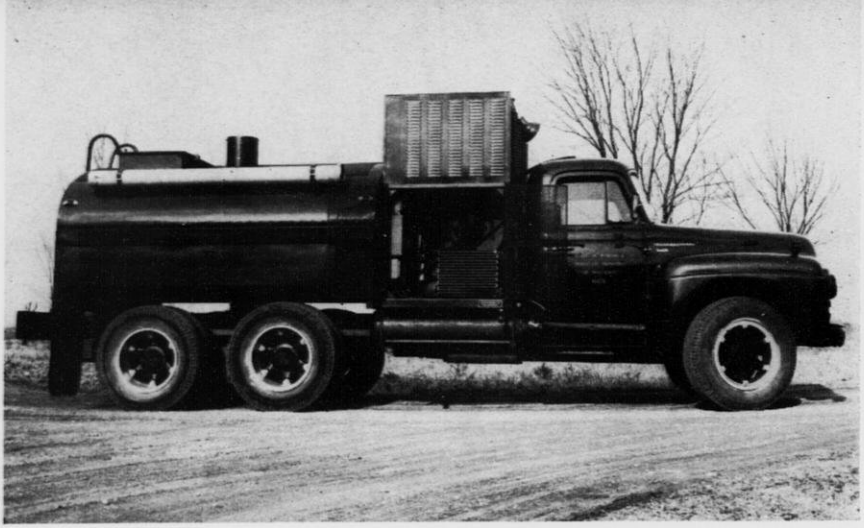
Improved equipment has made rough fish control more efficient. Carp are unloaded fast here.

summarized in the attached table. Carp have taken a jump upward as a result of an especially good hatch and survival of young two years ago (1956). At the same time drum control reached a peak in 1957 of 4,357,820 pounds and has declined since due to a failure of a year class. Most of the drum production came from Lake Winnebago. Most of the carp came from Beaver Dam Lake, Horicon Marsh, Lake Waubesa, Lake Kegonsa, and Lake Koshkonong. These large waters require annual removal operations. Waters requiring periodic removal which were fished intensively during the biennium were lakes Wisconsin, Delavan, Tichigan, Big Muskego, Whitewater, Eagle, Big Green, Puckaway, Buffalo, Lake Mason and Fox Lake.

The rough fish control problem on two bodies of water, Little Green Lake and Lake Como, appears to be solved by rehabilitation. Following poisoning the turbid waters cleared immediately, and after detoxification, restocking with game fish took place. Also partial poisoning of Lake Eau Galle seems to have aided game fish.

On the debit side of the ledger is the slow northward expansion of carp in the Northwest Area. They are now found in many of the tributaries of the St. Croix River as far inland as Spooner. The Northwest Area has initiated control measures in the Trade River system of Burnett County.

A saving is realized on the rough fish control program by sale of fish. Money received is placed in the Fish and Game Fund. Sales income was $164,640.73 in 1956–57 and $185,358.61 in 1957–58, enough to cover more than 50 per cent of the cost of control and disposal operations. Carp and drum sold to mink farmers for 1½ to 3 cents per pound. Carp sold alive and in the round drew from 4 to 6 cents per pound and drum from 5 to 7. Both these species draw low prices because of weak market conditions.



A new trout distribution unit is very efficient, with three times the capacity of older trucks.

PROPAGATION AND DISTRIBUTION

Cold Water

During the biennium the division's present cold water fish propagation program was centered in twelve trout hatcheries or rearing stations and 34 cooperative rearing ponds. The latter contribute 7.6 per cent of the number planted. Emphasis in trout production was placed on the production of legal fish because fish of this size exhibit better survival and can provide immediate fishing. Production was divided among the three species as follows: brook –39.4%, brown –29.9% and rainbow –30.7%. The Bayfield Hatchery, located on the shores of Lake Superior, was largely dedicated to production of lake trout to help sustain the lamprey ravaged stock in Lake Superior.

Total yearling trout production is allocated to the five areas, 18.8 per cent to the Northwest, 33.5 per cent to the Northeast, 17.2 per cent to the West Central, 13.3 per cent to the East Central and 17.2 to the Southern Area. In each area this is further apportioned to each county on the basis of trout stream width and length, human population and the presence or absence of trout reproduction.

A slight shift in the distribution policy has been effected. Practice had been to stock trout in streams during the spring because over-winter mortalities took a high toll. Trials with fall stocking indicated this was economic just so long as at least a 50 per cent survival was realized and growth was possible. A 50 per cent survival rate could be expected on streams receiving heavy fishing pressure and having abundant warm (in winter) spring water which would permit growth. Stocking some southern streams with these characteristics in the fall will give a better utilization of hatchery space. The other shift concerned stocking of trout lakes. Surveys indicated that survival from fall plants of advanced fingerlings was not as good as winter-time or spring plants of slightly larger fish. We now try to postpone stocking until winter or spring to achieve better results. Unfortunately, production schedules do not always permit this. The number of trout allocated to lakes has increased to the point where lake plants absorb 29–36 per cent of production.

Major improvements have been completed at two hatcheries, Wild Rose and St. Croix Falls. A new office, garage and workshop was completed at Wild Rose. The whole water collection system was rebuilt at St. Croix Falls. This has doubled the water supply. The addition and use of large dirt ponds at Brule, Crystal Springs and Nevin will permit better conditioning of trout for planting and ease the spring-time crowding which always imposes a ceiling on production. A new distribution unit capable of carrying many more fish was acquired.

Warm Water

Propagation of warm water game fish is entirely different than trout. While trout are reared in raceways and regularly fed artificial foods, the warm water fish must be reared in ponds and supplied with natural live foods. They are thus subject to most of the risks of the natural environment. Facilities operated for warm water production include two hatcheries, one at Woodruff and one at Spooner, a series of rearing ponds at both Spooner and Woodruff for muskellunge rearing, five large controlled water supply ponds for either muskellunge or walleye and 38 leased natural winterkill ponds located mostly in St. Croix and adjacent counties for walleye. Eggs are taken from wild fish and hatched in the hatchery. Fry are then introduced into the ponds.

Stocking practices for walleye are to stock annually in suitable lakes according to a graduated schedule based on lake size. In some cases the annual quota for three years is lumped into a single planting. Muskellunge are stocked according to a similar formula though not so intensively. Size of stocked fish will be 2.5–7.0 inches for walleyes and about 3.5–10 inches for muskellunge. There is great size variation in the stocked prod-

The "boom shocker" is a valuable new tool in sampling fish populations for research and inventory purposes.

uct because of the necessity for periodic cropping to avoid predation.

The maintenance stocking program as now practiced for walleye is under observation because research indicates stocking must be at much higher rates to significantly influence fishing. Present rates of production cannot possibly satisfy the potential demand of all waters and the economics of more intensive fish culture and stocking are questionable.

New developments were a trial of trough rearing of muskellunge. Much greater survival is possible under the controlled feeding possible in a rearing tank. A new controlled water level pond was built for walleye production in the Southern Area.

A total of 670 streams and 126 lakes received a planting of trout. Warm water fish were stocked in 580 different waters.

FISH DISTRIBUTION IN 1956 AND 1957

	1956	*1957*
Brook trout	969,116	773,847
Brown trout	584,357	586,117
Rainbow trout	890,881	603,542
Lake trout	400,267	247,086
Largemouth bass	49,472	16,285
Muskellunge	34,253	480,383
		1,164,711*
Northern pike	12,810	38,394
	1,904,794*	
Walleye	1,546,177	1,668,741
	41,558,522*	41,596,857*

*Fry plantings.

COMMERCIAL FISHERIES

Great Lakes

Statistics are compiled annually to follow trends in the commercial fishery. Through this medium we continue to observe the depleted lake trout fishery in Lake Michigan and a declining lake trout fishery in Lake Superior because of the lamprey depredations. Other species of large fish are also adversely affected. Whitefish production is down.

Intensive lamprey control with electric barriers has been extended to all the streams which have known lamprey runs, a total of 31 streams. This added control network now covers all the south shore streams of Lake Superior as well as Lake Michigan. By cooperative agreement the Fish and Wildlife Service installs the devices and the Conservation Department assumes half the responsibility for tending and maintaining them. The recovered catch of lampreys appears in the attached table. This does not represent the true total because many killed in the electrical field are never recovered. We are cautiously optimistic about results of our control program on Lake Michigan where the catch declined considerably. Plans have been formulated for the use of the lamprey larvicide on three Lake Superior streams in the fall of 1958. Field trials by Fish and Wildlife personnel have proven outstandingly successful.

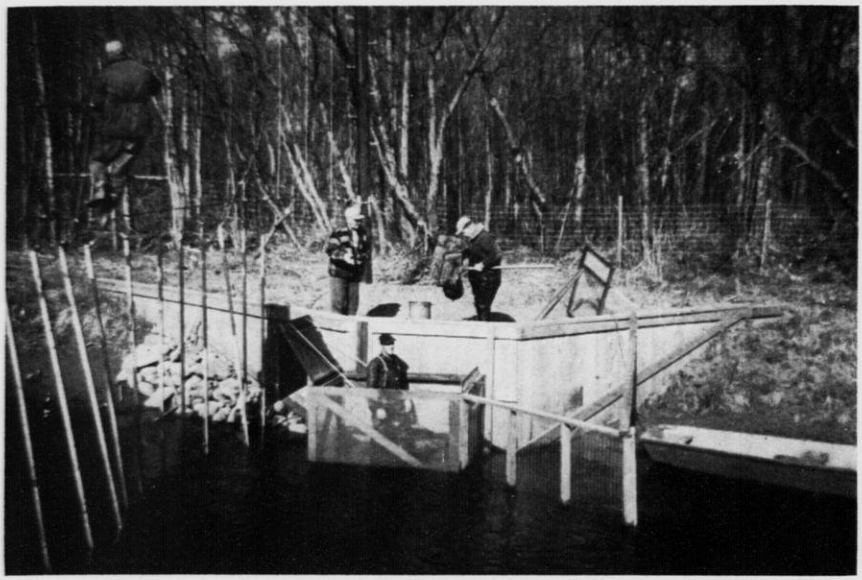
SEA LAMPREY CATCH FROM TRAPS AND WEIRS

	Lake Michigan	*Lake Superior*
Previous high	42,980 (1951)	904 (1956)
1957 catch	22,193	23,034
1958 catch	8,175	42,641

We are optimistic about restoring the lake trout fishery in Lake Superior to its former levels because of increasingly effective and tightening lamprey control and because of good results from stocking lake trout. Planted lake trout distinguished by excised fins have comprised as much as 50 per cent of the commercial catch by number in some lifts. The Bayfield Hatchery was able to stock

1957 HARVEST BY COMMERCIAL FISHERIES IN WISCONSIN

Species	Lake Michigan		Lake Superior		Mississippi River	
	Pounds	Value	Pounds	Value	Pounds	Value
Alewives	186,800	$ 3,735		$		$
Bowfin					7,084	212.52
Buffalo					248,198	32,265.74
Bullheads	30,600	3,064	4,400	437	15,247	2,287.05
Burbot	22,200	1,108	4,600	232		
Carp	2,032,300	101,618	100	5	1,182,751	59,137.55
Catfish	4,600	1,300			294,754	64,845.88
Chubs	5,888,300	1,177,659	170,200	34,036		
Eel					200	26.00
Gar					8,922	178.44
Lake herring	2,096,100	146,726	3,162,000	221,341		
Lake trout			287,000	172,179		
Mooneye and goldeye					49,058	1,962.32
Northern pike	10,400	1,555				
Quillback					13,378	668.90
Sheepshead	400	22			294,820	26,533.80
Smelt	1,627,900	65,115	137,700	5,507		
Sturgeon (sand)					3,416	683.20
Suckers	393,700	23,619	23,400	1,408	22,874	914.96
Turtle					1,759	211.08
Whitefish, common	12,300	7,363	288,600	173,147		
Whitefish, menominee	500	89	1,700	299		
Yellow perch	2,084,900	208,491	100	11		
Yellow pike	7,500	2,859				
Crawfish	1,200	301				
					1,540 (other)	
TOTALS	14,399,700	$1,744,624	4,079,800	$608,602	2,144,001	$189,927.44



Electrical control devices now block lamprey runs in all Wisconsin streams known to have runs.

400,267 in 1956 and 247,086 lake trout in 1957. Coordination of restoration of this fishery is being administered by the Great Lakes Fishery Commission.

Observations have been made on the whitefish fishery around the Apostle Islands of Lake Superior. A three per cent return on tagged fish, all within the Apostle Island area, confirms the local character of the population. The growth rate of tagged fish was found to be 1.3 inches per year and it was generally concluded that this was a slow growing population.

New management developments, regulation changes, and commercial-sport fishing conflicts were successfully resolved by discussion in the Commercial Fishery Advisory Committee. A big problem facing the industry is an upsurge in the abundance of low quality fish accentuated by invasion of the alewife.

Mississippi River

The commercial fishery on the Mississippi River is also followed closely through reports submitted by fishermen. The division's statistical summary of this activity is prepared annually, and is summarized in the attached table.

Survey work in progress on the river includes a creel census to determine the qualitative and quantitative aspects of the sport fishery, and tagging of key species to observe migration, harvest and growth.

Forest Management

This division is responsible for technical forestry advice and assistance to counties in the management of county forests, to private woodland owners, and to other divisions of the Conservation Department. Assistance is also given other state agencies in the management of public lands.

Highlights of the division program for the biennium are as follows:

1. The number of private woodland owners given assistance increased 112 per cent over the previous biennium.
2. County forest management was intensified. Development of new management plans for several counties is well under way.
3. Game management work on county forests was stimulated by Pittman–Robertson and Dingell–Johnson funds made available after the signing of game management agreements between counties and the Department.
4. Forest Crop and Woodland Tax Law entries continued to increase.
5. Field work on the state-wide forest inventory was completed.
6. The Forest Pest Control Act was put to use for the first time on a large scale control project with the aerial spraying of 26,170 acres in six northern counties to control jack pine budworm.
7. The number of organized watersheds has shown a marked increase.

COUNTY FORESTS

The county forests represent the largest group of publicly owned lands in the state and the largest county-administered forestry program in the United States. These forests were established following the passage of the County Forest and the Forest Crop Laws. Their primary purpose is the production of forest products. The volume and value of products harvested, with minor exceptions due to market fluctuations, has steadily increased. The early emphasis on preliminary activities inherent to the establishment of the forests has shifted to the more intensive management practices.

Administration of the County Forests is a joint forestry enterprise between the counties and the Conservation Commission. In this partnership, the counties provide the land and the local administration and supervision through the designated committees of the county boards and forest administrators. The state furnishes the technical advice and assistance of foresters of the Forest Management Division and provides state aid payments. These foresters also assist in the management of county lands not entered under the Forest Crop Law and provide technical assistance to private woodland owners.

Under the provisions of the forest laws, the counties receive two annual state aid payments: (1) forestry aid to the county of 10¢ per acre per year for lands entered under the Forest Crop Law for development of the county forest, and (2) 10¢ per acre per year to the civil

—Photo by Steigerwaldt

This is an improvement cutting in a county forest pine stand.

towns in which the land is located for distribution as follows: 40% for civil town expenses, 40% to the school district in which the land is located, and 20% to the county general fund. To reimburse the state for these payments, the state collects a severance tax of 50% of the stumpage value of timber cut based on the severance tax schedule established annually by the Conservation Commission following public hearings. The productivity of some county forests has reached the point where the severance tax collected from the sale of timber exceeds the state aid payments.

The twenty-seven County Forests originating from tax delinquent lands now contain 2,173,613.67 acres, a net increase of 9,223.80 acres during the biennium. This extensive acreage constitutes the largest block of forest land open to public hunting, fishing and recreation within the state. Acreage expansion within recent years has been primarily by purchase and exchange to improve blocking of the forest ownership. Extension of present forest boundaries is now the exception rather than the rule.

Following establishment of the forests basic projects such as surveying, firelane and firebreak construction, and planting of extensive denuded areas received the greatest attention. The intensified management efforts and the increased productivity of the forest has now centered attention on activities such as timber sales, access road construction, cultural cuttings, insect and disease control, recreational developments, and game management.

The primary purpose of the County Forests is the production of forest prod-

SUMMARY OF TIMBER SALES ON COUNTY FORESTS

July 1, 1956 to June 30, 1958

County	No. of Completed Sales	Products and Volumes Cut											Total Sales Value
		Logs—Bd. Ft.		Pulpwood and Miscellaneous Bolts—Cords						Piece Products			
		Conifers	Hardwoods	Pine	Spruce	Balsam	Other Conifers	Aspen	Other Hardwoods	Christmas Trees	Posts	Poles	
Ashland	22	990	182,210		35	134	12	1,329			1,852		$ 9,380.30
Barron	11		26,590					1,368					3,161.82
Bayfield	51	53,180	179,110	1,395	23	159	482	10,845	182	939	1,668	131	42,058.24
Burnett	57	5,390	29,920	6,357				431					37,557.05
Chippewa	40	500	11,900					1,400	14	175			3,646.32
Clark	49	18,945	68,820	123				2,223	121	12,252	904		15,699.27
Douglas	81	27,430	31,760	2,032	153	622	286	6,070	41	200	483		29,460.53
Eau Claire	41	62,190	102,385	3,569			38	1,035	278	850			26,287.56
Florence	17	25,760	28,660	4,049	100	242	56	1,672	209				24,126.82
Forest	7							1,433	49				5,000.81
Iron	87	5,510	1,598,220		666	4,172	1,831	4,660	231	4,119			75,900.71
Jackson	63	1,825	380	8,604				530	853	7,219		474	67,060.22
Juneau	15			226				254	341			1,750	3,013.11
Langlade	32	61,200	405,090	9	122	334	27	4,042	452		929	130	32,232.95
Lincoln	35	9,300	149,430		73	706	319	4,620	332		1,514	1	23,472.29
Marinette	81	393,800	212,810	6,929	1,538	3,448	370	36,620	4,082	3,779	22,944	1,137	191,986.53
Monroe	1	1,678		2									35.17
Oconto	48	96,120	24,270	964	95	409	27	4,414	452	125	3,773	40	22,118.55
Oneida	73	108,460	255,580	133	187	401	784	11,841	1,862		832	69	46,545.15
Polk	25			2,437									12,253.35
Price	99	79,240	125,210	10	67	155	1,954	9,700	1,963				39,149.82
Rusk	116	40,490	967,670		95	294	49	9,890	117	754	200		45,969.46
Sawyer	65	45,090	308,040	57	12	13	1,121	4,488	41	4,190		1,347	19,806.89
Taylor	11	1,620	23,070		8	28	9	957	291	332	912		3,931.04
Vilas	22	24,230		2,330	628	220	177	1,594	9	470	238		20,141.92
Washburn	109	11,110	127,090	3,324	7		144	8,767	99	2,489		300	39,161.30
Wood	13	4,800	51,600	47				693	11	170			2,986.38
Total	1,271	1,078,858	4,909,815	42,597	3,809	11,337	7,686	130,876	12,030	38,063	36,249	5,379	$842,143.56

SUMMARY OF WORK PROJECTS ON COUNTY FORESTS

July 1, 1956 to June 30, 1958

County	Plantations (Acres)			Forest Stand Improvement (Acres)			Forest Road Construction (Miles)	Firebreak Construction (Miles)	Surveying (Miles)	Insect and Disease Control (Acres)	Recreational Developments (No. Sites)
	Prior to July 1, 1956	1956–58	Total	Prior to July 1, 1956	1956–58	Total	Total to date	Total to date	Total to date	Total to date	Total to date
	(1)	(2)	(3)								
Ashland	497	21	518				18		166	40	1
Barron	97		97	12		12					
Bayfield	9,258	288	9,546	2,372	350	2,722	21	36	457	8,538	1
Burnett	6,799	352	7,151	3,242	393	3,635	31	42	66	4,530	2
Chippewa	442	9	439*		23	23				352	1
Clark	6,423	363	6,746*	190	140	330	5.5	24.5	600	57	6
Douglas	7,315	182	7,497	285	379	664	33	8	401	2,289	1
Eau Claire	2,553	251	2,804	81	115	196		1.75	2.5	496	1
Florence	2,337	131	2,468	50		50	1.1	15	148.5	3,765	2
Forest	492	8	500	6		6				11	
Iron	4,302	39	4,341	1,024	165	1,189	54	20	1,120	450	11
Jackson	7,339	365	7,704	1,490	171	1,661	1.75	9.25	396	2,694	4
Juneau	3,878	303	4,181	255	141	396	4	14.5	48	20	
Langlade	4,807	18	4,842*	1,092	28	1,120			413	2,277	2
Lincoln	3,095	43	3,138	585		585	13.3		244	238	
Marinette	13,493	684	14,337*	5,582	831	6,413	40.35	102.3	938.5	9,668	6
Monroe	254	25	279	10	70	80					
Oconto	7,188	92	7,267*	2,382	275	2,657	54.25	33.5	118.5	9,740	2
Oneida	1,818	45	1,863	1,217	177	1,394	17.2			485	
Polk	701	85	786	33		33				1,640	
Price	1,209	60	1,269	303	98	401	17		361	1,870	2
Rusk	1,034	45	1,079	2,994	216	3,210	24		256	20	2
Sawyer	4,150	85	4,235	4,599	231	4,830	31		141	30,456	1
Taylor	412	15	398*	68	27	95	10	4	39	425	
Vilas	2,811	143	2,917*	158		158	15	32	25	100	1
Washburn	1,788	140	1,928	1,680		1,680	16	14	285		3
Wood	4,404	182	4,586	493		493	7.5	10.5	32	1,495	
Total	98,896	3,974	102,916*	30,203	3,830	34,033	414.95	367.3	6,258	81,656	49

*Under Plantations, column (3) is not a total of (1) and (2) because of acquisitions and plantation deductions due to failure or sale.

ucts. Production has steadily increased. The sale and harvest of timber stumpage has now become the most important single activity. The volume of timber cut during this biennium represents a slight increase over the previous reporting period in spite of poor market conditions. Timber sale reports indicate a biennium harvest of 5,988,673 board feet of sawlogs, 208,335 cords of pulpwood and chemical wood, 38,063 Christmas trees, 36,249 posts and 5,379 poles. If this volume were reduced to a cordwood basis, it would form a pile of wood four feet high and eight feet wide extending in a straight line from Madison to Tomahawk.

The above volumes were cut from 1,271 sales and resulted in a gross income of $842,143.56 to the counties.

Reforestation of the major part of the extensive denuded areas on the county forests is essentially completed. A total of 3,974 acres were planted during the biennium which represents a reduction of 26% from the last biennium. Tree planting activities are now largely centered on the planting of smaller areas, the conversion of stands of low quality, and understocked areas. This type of planting is more time consuming and costly; hence the reduction in the acreage planted in recent years.

Cultural work consists of tree pruning, weeding, thinning, release, and improvement cuttings made both in natural stands and plantations. While this type of work often represents an investment of funds, it will return greater yields and higher quality products in future harvests. Forest plantations established by the public work agencies during the late 1930's and early 1940's are now of such a size as to warrant cultural work. During the past biennium, 3,830 acres of plantation and natural stands received cultural treatment—an increase of 70% over the preceeding biennium. A portion of this acreage was treatment by aerial application of chemical herbicides to effect release of conifers from overtopping hardwoods. This new technique makes possible the release of areas heretofore considered uneconomical to treat; hand release may cost in excess of $25 per acre whereas aerial release with the use of herbicides can be done for approximately $5 per acre.

Intensive forest management demands the construction of access roads. These roads have a threefold purpose of providing access for the harvest of timber, the protection of the forest from insects, disease, and fire and for hunting, fishing and other recreation use. To date 415 miles of permanent roads have been constructed on the County Forests. This does not include hundreds of miles of secondary logging roads and trails.

Although forest crops are the principal product, committees, administrators and the Conservation Commission are aware of the multiplicity of uses that the County Forests afford. The development of parks and campsites for the use of the public is receiving greater attention. Forty-nine such areas are now developed for public use with others in the planning stage to meet the anticipated demand.

To implement the development of the multiple use aspect of the County Forests, memoranda of understanding between some county boards and the Conservation Department have been executed the past year. Where such memoranda are in effect, the Department is authorized to spend Pittman–Robertson and Dingell–Johnson funds for fish and game habitat development and for access road construction.

The importance of the County Forests to communities, wood-using industries, and the recreational industry is increasing. Hundreds of families are now dependent for their livelihood upon employment in these forests. The value of forest products harvested in 1957 was

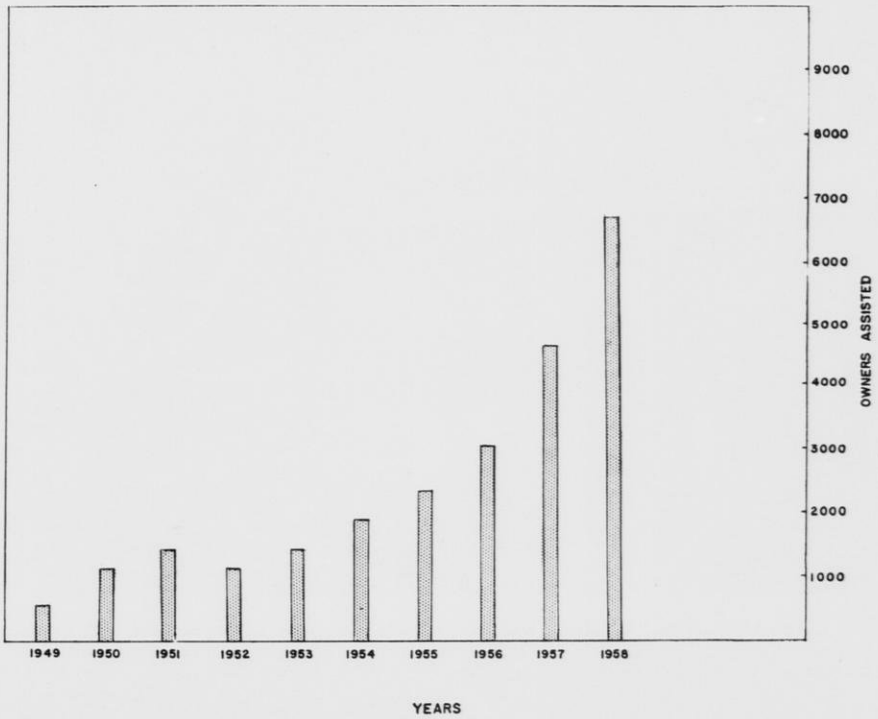
more than ten times greater than in 1942. The increasing timber production and resulting revenue eases the tax burden and makes a significant contribution to the local economy. Under continued and more intensive management, the County Forests will add to the prosperity and well being of the state.

PRIVATE FORESTRY SERVICES

Roughly 60% of the commercial forest land in the state is owned by farmers and other individuals in relatively small tracts. Timber Resources Review, compiled by the U. S. Forest Service, indicates that many of our wood-using industries, particularly those that require quality material, face a shortage of raw material in the near future unless these small tracts are placed under adequate management. To meet this need the number of foresters whose primary duty is to assist private owners was increased from 16 at the beginning of the biennium to 32. Assistance was given to 11,369 woodland owners as compared to 5,365 in the previous biennium, an increase of 112%.

A substantial number of the landowners given assistance were farmers whose winter activities include work in the woods. Woodland management assistance during this period is one of the important activities of the Department foresters since farmers are interested in supplementing their income by working in their woodlands. Services rendered in wood land management include management recommendations, selection of mature timber to be harvested, and marketing assistance. An estimated gross income of $745,000.00 accrued to cooperating landowners from products harvested during the biennium in this phase of the private forestry program.

Department foresters participated in 1,248 meetings, demonstrations and programs designed to promote sound forest management.



Woodland owners in increasing numbers have been given forestry assistance.

Foresters make forest plantation layout plans for landowners interested in reforestation of their idle and worn out lands. This includes soil analysis, recommendations on planting equipment and techniques, and selection of species.

The spring tree planting season begins as soon as the frost leaves the ground. Department foresters supervise distribution of nursery stock, use of tree planting machines, and the planting operations of landowners. Many of these landowners plant trees under the Agricultural Conservation Program and the Conservation Reserve of the Soil Bank Act. Foresters assigned to the private forestry section must approve all tree planting under these two programs before the landowners receive their federal cost-sharing payments. The U.S. Forest Service has delegated this responsibility to the state forester in agreements which make financial aid available to the Department. Department foresters supervised the planting of 30 million trees on private land during the biennium.

After tree planting season, the forester's attention is turned to marking diseased, weed, and cull trees for removal for timber stand improvement. These trees are subsequently removed by landowners to improve the composition and growth of the remaining stands. Woodland owners who perform this operation according to specifications, and under the supervision of the Department forester, may qualify for federal cost-sharing under the Agricultural Conservation

These logs from private woodlands are on the way to Wisconsin wood-using industries. Twenty million board feet of timber was harvested with assistance of Conservation Department foresters during the past biennium.

Program. Many counties submit over 100 requests each year for this service alone. During the biennium, 2,000 requests were received for marking timber stand improvement.

Timber harvesting and processing are year around activities. Department foresters contributed to the success of this important industry by giving advice and assistance to 338 timber operators during the biennium. This assistance included help in locating raw material, improvement of manufacturing techniques, and in marketing finished products. Results of these efforts are greater acceptance of good forest management practices by timber operators and improved quality and quantity of wood products.

An encouraging increase in the number of watershed groups activated plus increased activity by those already functioning saw a significant amount of forestry advice rendered these associations. Forest management on the private timber lands in agricultural area watersheds has received impetus along with other soil and water management concepts to insure a sound watershed program. Foresters have helped in mapping and planning watersheds and in the establishment of better woodland protection and management throughout the state.

The private woodland program covers the state. The foresters working with the county forestry program in the north also assist private woodland owners with management problems. Services given have had a noticeable effect in improving the management of these lands. This work is not included in the Cooperative Forest Management report.

Promotion of the forest management concept requires continuous educational effort. Foresters of the division partic-

ASSISTANCE RENDERED PRIVATE WOODLAND OWNERS IN COUNTY FOREST DISTRICTS

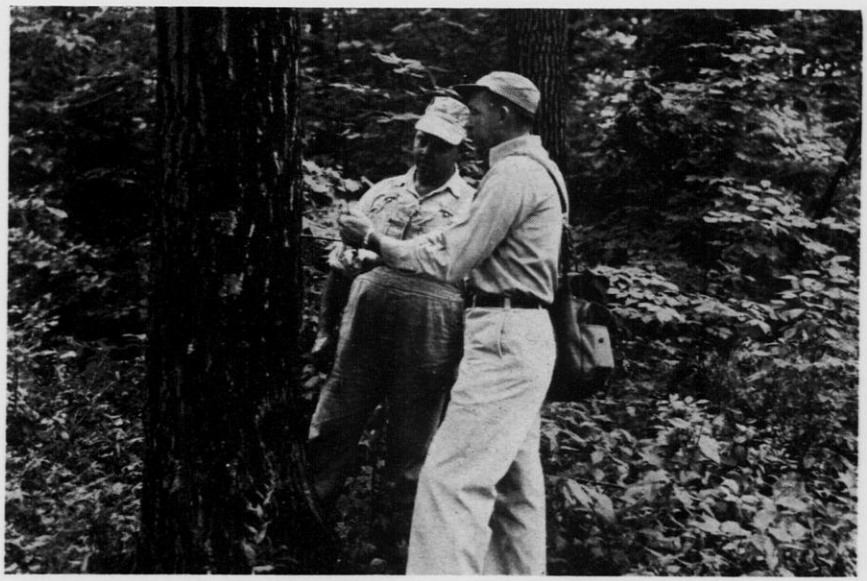
July 1, 1956–June 30, 1958

Owners Given Assistance	*Acres*	*Timber Harvested or Recommended for Cutting*		*Cultural Cutting Acres*	*Acres Protected from*		*Approximate Returns to Owner*	
		MBF	*Cords*		*Fire*	*Grazing*	*Stumpage*	*Gross*
2,381	58,321	3,767	24,167	10,628	10,523	13,903	$112,581	$160,811

ipated in 1,248 woodland management and tree planting demonstrations, conservation tours, radio and television broadcasts, and talks to interested groups to promote good forestry.

All foresters participate in forest insect and disease control as observers and reporters. Many are assigned to participate in control activities when the need arises.

Foresters are also responsible for the Department's cooperative forest fire control program, outside of the established Forest Protection Districts. Assistance is rendered to other divisions of the Department on forestry matters. Non-technical assistance is rendered to other divisions when needed, such as to the Law Enforcement Division during the deer season.



Foresters reached 11,369 woodland owners with in-the-woods technical assistance.

COOPERATIVE FOREST MANAGEMENT PROJECT SERVICES

Item	*1956–57*	*1957–58*	*Total*
Number of projects—full time	20	25	
—part time	7	6	
Owners Given Assistance—Number	4,641	6,728	11,369
Woodland involved—acres	95,157.4	122,296.67	217,454.07
Timber marked—MBF	6,713.22	10,242.75	16,955.9
Timber marked—cords	10,202.24	21,205	31,407.2
Timber marked—acres	9,918.3	13,254.4	23,172.7
Timber Inventoried for Management—MBF	13,693.50	14,086.33	27,779.8
—cords	9,202.24	5,231	14,433.2
—acres	9,918.3	4,435.5	14,353.8
Woodlands Using Improved Practices—number	3,166	4,841	8,007
Commercial timber cut—acres	5,123.1	3,949	9,072.1
Forest improvement cut—acres	3,497.5	4,719.2	8,216.7
Land planted—acres	9,792.9	17,905.6	27,698.5
Woodland protected—acres	96,279.6	105,867.97	202,147.6
Products Harvested Using Improved Practices:			
Sawlogs, veneer, etc.—MBF	4,922.85	3,865.4	8,788.25
Pulpwood—cords	3,758	6,022.5	9,780.5
Ties—number	21,766	16,933	38,699
Fuel wood—cords	4,046.11	5,651	9,697.1
Posts—number	14,790	40,852	55,642
Total—converted to MBF	9,569.73	10,461.15	20,030.38
Products Harvested—Marketing Assist. Only—MBF	1,211.3	1,314.5	2,525.8
Total Products Harvested—MBF	10,781.03	11,775.65	22,556.68
Stumpage Returns to Owner—estimated	$201,844.00	$174,452.50	$376,296.50
Gross Returns to Owner—estimated	$371,121.00	$373,859.30	$744,980.30
Forest Products Operators Advised	190	148	338

FOREST INVENTORY

All field work on the state-wide forest inventory is completed. Some reports have been published and distributed with the balance to be published and distributed in 1959. The thirty-two-county forest inventory, or Northern Inventory, covering some 18,000,000 acres was completed in the spring of 1957. The survey of the remaining area, known as the Southern Inventory, was started in the summer of 1957 and completed in June of 1958. The intensive or 100% mapping phase is also drawing to a close.

The various phases of Wisconsin's forest inventory program are as follows:

Northern Inventory (32 counties): The forest inventory of the 32 northern and central counties which started in July of 1950 was completed in April of 1958. During this period a total of 10,565 1/5-acre sample volume plots were measured, of which 1,162 were permanent plots. These permanent plots will be remeasured at regular intervals. A total of 31,252 forty-acre sample blocks were mapped. A report covering the forest statistics was published and distributed for each county. In addition, another report was published and distributed which was a statistical summary of all 32 county reports.

Southern Inventory (39 counties): This inventory was authorized by the Conservation Commission in 1956. Technical and field assistance was provided by the U. S. Forest Service through the Lake States Forest Experiment Station.

Sampling techniques used on this inventory were different than those used on the Northern Inventory. The field work was started in May of 1957 and was completed in June of 1958. During this interim a total of 2,104 sample plots were measured of which 407 were of the permanent type. This inventory was divided into four districts: Winnebago, Milwaukee, St. Croix and Prairie du Chien. Four reports will be published, and this material along with that obtained on the Northern Inventory will make it possible to compile a report on the forest resources for the entire state. One report has been published and the remainder are in the process of publication and should be distributed early in 1959.

Watersheds: The watershed program has increased in intensity. With the establishment of a research station near La Crosse, more emphasis will be placed on watersheds and their problems. During this biennium a total of nine watersheds were mapped, and a 100% acreage count made. The watersheds shown in the accompanying table were completed during this biennium:

Name	*County*	*Acreage*
Whittlesey	Bayfield	6,034
Lost Creek	Pepin	4,983
Mill Creek	Richland	39,076
Coon Valley	La Crosse, Vernon, Monroe	91,089
Devils River	Brown, Manitowoc	25,140
Bogus Creek	Pepin	7,034
Bad Axe	Vernon	121,368
Mill Creek	Buffalo	9,730
Rose Valley	Buffalo	4,661
Total		309,115

County Forest Management: Work on the county forests progressed rather slowly during this biennium since major emphasis was being placed on completion of the northern and southern inventories. No sample plots were measured on county forests during this biennium, however, portions of Lincoln, Forest, and Iron counties were partially photo mapped, and photo mapping Price County was completed. The county forests that need 100% type mapping are Monroe, Barron, Ashland, Rusk and Oconto. The major emphasis during the next biennium will be the completion of the 100% mapping and field work for all county forests.

Cooperative Mapping: In December of 1956 the forest inventory section was assigned the 100% photo mapping and field checking of the Menominee Indian Reservation. This project was completed in May 1957, with some 234,000 acres mapped and field checked. Industrial forest land owned by Owens–Illinois was mapped in Price County. During the coming biennium, this section should complete the remainder of the Industrial Forest lands and that portion of the Flambeau Forest lying in Price County.

FOREST PEST CONTROL

The biennium started with the prospect of a continuing jack-pine budworm epidemic and the possibility of heavy loss of valuable jack pine timber with its resulting complications unless the epidemic was checked by nature or direct control measures. Nature had not given any assurance that the epidemic would be over in 1957, consequently it was necessary to prepare to cope with the situation that presented itself in the spring.

The winter and spring of 1957 were spent preparing to spray as much as 195,000 acres of jack pine forest to control the budworm in five Northwest Area counties and in Oneida County in the Northeast Area. Federal aid was enlisted to help finance what apparently was going to be a major chemical control oper-

ation. State Emergency Board approval was received to spend as much as $412,000 if necessary to carry out the program and the state was to be reimbursed from federal funds for 25% of the amount spent on the control job.

Consultations with department foresters concerning timber values involved and budworm information from more than 300 survey plots were the basis for arriving at the acreage that would be treated. At the time the operation started plans were to spray a minimum of 57,510 acres and a possible maximum of 171,400 acres.

Fish Management and Game Division personnel were kept informed of developments in the program. Study-areas within the contemplated spray blocks were established to observe immediate and long range effects of spraying on fish and game.

Soon after spraying operations were begun it became apparent that natural control factors were sharply reducing the budworm populations in many areas and that these areas could be eliminated from the program. Continuous critical observation of all blocks of timber scheduled for treatment, even while spraying was underway, averted much needless spraying at a considerable saving of state and federal funds. The final acreage sprayed in the Northwest Area was 18,770 acres and in Oneida County 7,400 acres were treated.

Total expenditures by the state for the project amounted to $69,277.34. Reimbursement from federal funds totaled $17,319.34 and the balance was borne by the state and private owners.

Results in the sprayed areas were satisfactory in spite of adverse weather conditions. No significant detrimental effects on fish or wildlife were reported by observers as a result of applying DDT at the rate of one pound in one gallon of spray mixture per acre.

The wholehearted participation by the various divisions within the depart-

Aerial spraying to control the jack pine budworm, Burnett county, 1957.

ment and outside agencies including the University of Wisconsin College of Agriculture, the University of Minnesota, the U. S. Forest Service, and private industries was an excellent example of the cooperation that is available when a major pest problem arises in the state.

Budworm populations in 1958 were generally low and required no chemical treatment anywhere in the state. Removal of high hazard trees and the action of natural control factors resulted in the decline of a threatening budworm population in Marinette Conuty.

Spittlebug control work was necessary on only 351 acres of state-owned land in 1956. In 1957, however, 4,032 acres scattered over six counties were sprayed at a total cost of $9,273.60 for the insecticide and its applications. Of this total the state paid $5,539.55 and the landowners paid the balance of $3,-734.05. Post spray surveys indicated that the control work was very effective.

Increasing use of insecticide applicators on planting machines, in fields where white grub populations are high, is sharply reducing seedling mortality caused by grubs. In 1957 seedling treatment was reported on 1,667 acres in the Northeast and East Central Areas. Treatment of seedlings by dipping the roots in insecticide solution just before planting is being tested to compare the method with treatment by spray applicators.

During the biennium mortality to hard maple began to appear in some areas in the northern counties. Two different conditions were observed: The one in which only mature and large trees were affected by dying back of twigs and branches and some tree mortality was designated as maple dieback, and occurred mainly in Marathon County; the other which occurred in Florence County and resulted in death of all age classes of maple was designated as maple blight. In most respects the visible symptoms of the two conditions were very similar, the principal distinction being made on the age of trees affected.

In the fall of 1957 more than 750,000 board feet of maple was marked for salvage cutting in the Goodman holdings in Florence County. The tree mortality had been preceded by two summers of heavy defoliation of the maples by leaf rollers and webworms. Equally severe defoliation of other maple stands in the vicinity had not resulted in tree mortality. Due to the seriousness of the problem action was taken immediately to try to solve it. A coordinated program headed by the Lake States Forest Experiment Station with participation by the Conservation Department, the University of Wisconsin Departments of Entomology and Plant Pathology, and industry was organized.

Department personnel have been engaged in detection surveys and the operation of black-light traps in the affected areas to obtain information on the insect populations present. One other area showing maple blight symptoms was discovered near Mercer in Iron County. In addition to the detection and appraisal surveys, studies to determine the influence of environment, the involvement of pathogens, and the role of insects are underway.

Insect populations in the Goodman blight area were much lower in 1958 than they had been the two preceding summers.

Oak wilt continued to cause severe losses of black and red oak. An aerial survey made during the summer of 1956 in cooperation with the University of Wisconsin Department of Plant Pathology determined that the northern limit of the disease in the state appeared to be near Stevens Point.

Variable sawfly damage was encountered over the state during the biennium. The introduced pine sawfly populations in the northwestern counties

Trees at the left were killed by oak wilt. Those in the center, marked with white paint, were poisoned while still healthy to keep the disease from spreading further.

appeared to be subsiding. Large numbers of cocoons were found parasitized by a minute parasite, *Monodontomerus dentipes*. The red pine sawfly outbreak at the Poynette Game Farm was brought under control by parasitism and predation and some spraying. Red headed sawflies caused damage to southern area plantings in 1957 and made necessary some spraying with hand operated equipment. The larch sawfly continued to defoliate tamarack stands across the state and populations appeared to be increasing generally.

The forest tent caterpillar continued to defoliate aspen over large areas. The center of heaviest defoliation appeared to be shifting slowly eastward and southward. An extensive area of heavy defoliation occurred as far south and east as Langlade County near Antigo. Parasitism of pupae was high in areas of high tent caterpiller populations.

The European pine shoot moth is still confined to the eastern and southeastern counties. In the Two Rivers area where some of the most spectacular damage has occurred retarded pupal development was noted in the spring of 1958. Information on cold weather as a limiting factor in shoot moth distribution has been gathered and analyzed by University researchers, and a map showing zones where planting of red pine might create a problem is forthcoming. Temperatures of –18°F. or lower are believed to be a limiting factor in the spread of this pest.

Jack pine plantations in the northwest have been seriously damaged by the root collar weevil. This insect has also been reported from most sandy soil areas in the state as far south as the Wisconsin River Valley. No practical control has been worked out.

The saddled prominent which had been responsible for heavy defoliation of beech and maple in Door County in

1956 and 1957 has disappeared as a pest for the time being. Populations were reduced dramatically by the action of Calosoma beetles, other predators and parasites, and a virus disease until there was no sign of this pest in 1958.

Survey and control work has been hampered by the lack of facilities in the past as well as a shortage of manpower. Approval was given in the late fall of 1956 to design and build a pest survey and control building at Nevin Hatchery near Madison. Contracts were let at the end of the biennium and construction was started. A full staff of area entomologists was also achieved at the end of the biennium. Assisting the entomologists in pest observation are 114 observers consisting of department personnel who have received training in this work at in-service schools, the last of which was held at Eagle River in March of 1958.

FOREST TAX LAWS

FOREST CROP LAW

Taxation under the Forest Crop Law has continued to meet with success in encouraging the production of wood products for Wisconsin wood-using industries. The acreage entered under this law by individuals, corporations, and counties continues to increase each year. As of June 30, 1958, there was a total of 2,539,242 acres entered, an increase of 32,092 acres during the past biennium.

During this report period there was an increase of 20,160 acres of privately-owned lands under the Forest Crop Law, making a total of 353,616 acres entered as of June 30, 1958. Of this total, 27,587 acres are special classification—lands located outside of the boundaries of established forest protection districts at the time of entry. To qualify for entry a tract must contain 40 acres or more.

Enactment of the Forest Crop Law has made it possible for counties, industries, and private land owners to produce recurring crops of wood products. Many industries are dependent upon the practice of forestry.

In addition to providing state aid to local communities to advance the forestry program, forest crop lands provide over two and a half million acres open to the public for hunting and fishing.

WOODLAND TAX LAW

In order to give the small woodland owner the benefits of a reduced tax on land used for the growing of trees, the Legislature in 1953 enacted the Woodland Tax Law. This law is used primarily in the agricultural areas of the state where many wooded areas are not large enough to qualify for entry under the Forest Crop Law, or the land descriptions are not adequate for forest crop entry.

Since enactment of this law, there have been 2,215 applications approved for the entry of lands in 615 towns in 67 counties with a total of 48,909 acres. During the past biennium there have been 927 orders of entry approved for 20,580 acres.

In addition to providing a source of products to the many wood-using industries in the state, the woodland tax lands also benefit the wildlife habitat improvement and soil conservation programs. The added forest cover in these areas under management will improve the natural habitat for wildlife and help to stabilize watersheds by retarding rapid water runoff. This law gives all woodland owners an opportunity to take advantage of its tax benefits and an incentive for improvement in woodland management.

FOREST MANAGEMENT—FOREST CROP LANDS BY COUNTIES

July 1, 1956—June 30, 1958

County	Private Entries					County Entries					Total Forest Crop Land
	Prior to July 1, 1956	1957	1958	Withdrawn	Net Private Lands	Prior to July 1, 1956	1957	1958	Withdrawn	Net County Lands	
Adams	2,216.87			200.00	2,016.87						2,016.87
Ashland	1,477.51	60.00	40.00		1,577.51	38,386.02	40.00		6,160.00	32,266.02	33,843.53
Barron	1,524.02	160.00	160.00	651.52	1,192.50	9,760.51	79.00	1,256.75		11,096.26	12,288.76
Bayfield	9,821.02	115.00	40.00	597.31	9,378.71	162,624.95		40.00	40.00	162,624.95	172,003.66
Brown	40.00				40.00						40.00
Buffalo	210.00		91.67		301.67						301.67
Burnett	2,011.20		229.50		2,240.70	101,652.74	343.08	440.62	116.00	102,320.44	104,561.14
Calumet	80.00				80.00						80.00
Chippewa	2,169.10	400.00	40.00	160.00	2,449.10	23,740.13	211.40	40.00		23,991.53	26,440.63
Clark	338.03	454.79	200.00		992.82	129,896.32	480.00	365.00	197.11	130,544.21	131,537.03
Crawford	249.76	140.00			389.76						389.76
Dodge	43.30				43.30						43.30
Door	2,331.17				2,331.17						2,331.17
Douglas	60,252.84	2,482.49	791.57	766.36	62,760.54	244,772.90	1,417.69	160.00	1,246.45	245,104.14	307,864.68
Dunn	3,869.33	200.00	120.00	351.89	3,837.44						3,837.44
Eau Claire	1,186.80	120.00	466.41	440.00	1,333.21	42,600.11	275.00	857.78		43,732.89	45,066.10
Florence	44,495.29	80.00	1,608.53	2.45	46,181.37	35,995.26	320.00		889.45	35,425.81	81,607.18
Fond du Lac		40.00			40.00						40.00
Forest	37,448.40	570.00	421.17		38,439.57	10,695.07				10,695.07	49,134.64
Grant	1,131.44		80.00		1,211.44						1,211.44
Iowa	160.00				160.00						160.00
Iron	9,319.65				9,319.65	172,214.49	80.00		120.00	172,174.49	181,494.14
Jackson	320.00	40.00	80.00		440.00	113,336.45	537.04	80.00	120.00	113,833.49	114,273.49
Jefferson	50.00				50.00						50.00
Juneau	516.51		215.30		731.81	15,323.19		80.00		15,403.19	16,135.00
Kewaunee	389.16	82.35			471.51						471.51
La Crosse	280.00				280.00						280.00
Lafayette	51.67				51.67						51.67
Langlade	9,862.47	814.00	690.00		11,366.47	119,541.25	3,084.94	440.45		123,066.64	134,433.11
Lincoln	29,805.36	241.52	320.00	46.45	30,320.43	95,688.87	1,120.00	160.00		96,968.87	127,289.30

FOREST MANAGEMENT—FOREST CROP LANDS BY COUNTIES—(Continued)

July 1, 1956—June 30, 1958

County	Private Entries					County Entries					Total Forest Crop Land
	Prior to July 1, 1956	1957	1958	Withdrawn	Net Private Lands	Prior to July 1, 1956	1957	1958	Withdrawn	Net County Lands	
Manitowoc	873.50	40.00			913.50						913.50
Marathon	3,817.42	320.00	1,129.04	160.00	5,106.46						5,106.46
Marinette	1,115.92			80.00	1,035.92	222,525.13	400.00	80.00	280.00	222,725.13	223,761.05
Marquette	215.00	120.00	80.00		415.00						415.00
Monroe	214.00		40.00		254.00	2,898.48	120.00			3,018.48	3,272.48
Oconto	3,258.73	273.40	317.10		3,849.23	40,102.98		275.68		40,378.66	44,227.89
Oneida	62,792.29	80.00	927.60	629.48	63,170.41	80,676.90	160.00	107.95	753.60	80,191.25	143,361.66
Outagamie	480.00	40.00	164.13		684.13						684.13
Ozaukee	54.60				54.60						54.60
Pepin	311.48				311.48						311.48
Pierce	725.00	80.00	40.00	20.00	825.00						825.00
Polk	2,169.21	160.00	120.00		2,449.21	9,669.49	160.00			9,829.49	12,278.70
Portage	3,676.95	278.81		40.00	3,915.76						3,915.76
Price	2,924.29	157.30	80.00	71.69	3,089.90	85,131.02	200.00	1,608.24	73.00	86,866.26	89,956.16
Richland		40.00			40.00						40.00
Rusk	1,683.37	909.14	80.00		2,672.51	81,860.83	718.64	637.10	80.00	83,136.57	85,809.08
St. Croix	159.00		251.50		410.50						410.50
Sauk	80.00				80.00						80.00
Sawyer	928.37		400.00		1,328.37	109,867.61	1,800.00	354.60	80.00	111,942.21	113,270.58
Shawano	6,959.12	120.00	1,667.90	234.90	8,512.12						8,512.12
Sheboygan	81.50				81.50						81.50
Taylor	3,037.20	40.00	240.00		3,317.20	15,956.16	280.22	360.00	200.00	16,396.38	19,713.58
Trempealeau	240.00	40.00	400.00		680.00						680.00
Vernon	490.00	245.00	167.30		902.30						902.30
Vilas	2,063.69		40.00		2,103.69	31,524.00	917.59			32,441.59	34,545.28
Washburn	1,856.33	238.80	160.00		2,255.13	139,502.69	410.74	1,889.27	384.00	141,418.70	143,673.83
Waupaca	780.00	80.00	3,073.53		3,933.53						3,933.53
Waushara	1,558.63		299.95		1,858.58						1,858.58
Wood	9,339.94			3.03	9,336.91	37,676.12	305.07	57.92		38,033.11	47,370.02
TOTALS	333,536.44	9,262.66	15,272.20	4,455.08	353,616.16	2,173,613.67	13,460.41	9,291.36	10,739.61	2,185,625.83	2,539,241.99

Note: Included in the withdrawal of county-owned lands is a total of 6,160 acres which have been conveyed to mining corporations for development of taconite iron ore mining in Wisconsin.

To register lands under this law, an owner may file an application with the Conservation Department showing the location of his land and a pledge to follow sound forestry practices. The entry is made for 10 years and the owner pays a fixed annual tax of 20 cents per acre.

FORESTRY RESEARCH

For a number of years the Conservation Commission and the University of Wisconsin have cooperated in the planning, financing, and conduct of forestry research in Wisconsin. Since the Conservation Department does not have an organization for the conduct of forestry research and the University does, it is felt that a pooling of personnel, facilities and financing is in the public interest. Under a cooperative agreement the Conservation Commission budgets a sum of money each year to be used by the Agricultural Experiment Station of the University of Wisconsin to conduct such forestry studies as are agreed upon by the Conservation Department and the University. The University employs scientists to perform the research and furnishes office and laboratory facilities at the University. The Conservation Department also provides field stations, lands upon which to conduct the research and cooperative assistance of the forestry field force.

Particularly noteworthy accomplishments have been the development of a successful control program for white grubs in the forest nurseries, the development of insect survey methods in conjunction with jack pine budworm control measures, the development of a soils management program in the forest nurseries, the identification of the oak wilt organism and development of some promising control measures, and the start of a forest genetics program with the establishment of the first seed orchards in the state.

In addition to the research work sponsored by the Conservation Commission at the State Agricultural Experiment Station, the Commission also cooperates with the Lake States Forest Experiment Station and in some cases sponsors and finances individual studies of particular importance to the State. During 1958 the Commission sponsored a limited study of forest taxation at the Lake States Forest Experiment Station, financed the study in part and participated actively in its preparation. This study will give up-to-date information on the equitability of certain tax rates under the forest crop law.

During the biennium the Commission recommended to the U.S. Forest Service that a branch research center of the Lake States Forest Experiment Station be established in the unglaciated region of Southwestern Wisconsin to study forestry and watershed problems peculiar to that area. Under a Cooperative Agreement between the Conservation Commission and the U.S. Forest Service the Forest Service will operate the research center; the Conservation Commission will provide lands on which to conduct the research and will assist in planning and conducting the research.

FOREST INSECT RESEARCH

Forest insect research is the responsibility of the Department of Entomology of the College of Agriculture. It includes the following studies:

Insect Classification and Identification Identification is the key to the control of damaging insects. Thousands of specimens are collected each year and many have never been previously recorded in Wisconsin. This study aims at identifying and classifying all insects, harmful

and beneficial, which are of importance in Wisconsin forests.

Silvicultural Control and Biological Studies This research is aimed at determining the relationship of insect pests to the forest, what they feed on, how they develop, what forest conditions tend to favor or depress potential build-ups, and survey methods to determine and predict insect populations. Finally the study is aimed at developing forest management methods which will prevent insect epidemics. This study made it possible to greatly reduce control costs during the recent jack pine budworm outbreak in Northern Wisconsin.

Biological Control This is a relatively new field and shows great promise. This study has as its objective the determination of the natural diseases and parasites of forest insect pests, the rearing of these parasites and the placement of them in sufficient volume to control insect pests. This type of control offers an opportunity for substantial savings in control costs and also reduces the hazards inherent in the use of chemical insecticides.

Chemical Control Methods Although silvicultural and biological control methods show great promise and in some cases are already effective in preventing and controlling insect pests, often emergency control measures are necessary to prevent great economic loss. In these cases chemical control is often the only alternative. This study is aimed at the assessment, development, and use of chemical insecticides. Particular emphasis has been placed on the development and use of the new systemic insecticides which under certain circumstances can be introduced into plant tissues. Insects feeding on treated plants are killed. This study shows promise in the control of certain pine sawflies and the European Elm Bark Beetle, which transmits the Dutch Elm Disease.

TREE DISEASE RESEARCH

The responsibility for tree disease research rests with the Department of Plant Pathology in the College of Agriculture. Some of the more important studies underway are as follows:

Development of White Pines resistant to the White Pine Blister Rust The raising of white pine is limited in many areas of the state by the white pine blister rust. In this study naturally resistant strains of white pine are selected and propagated with the aim of establishing seed orchards from which blister rust resistant white pine seed can be obtained for use in the state tree nurseries.

Climatic Relations of White Pine Blister Rust and its Control Investigations have shown that the development of white pine blister rust is affected by local climatic conditions. This study is aimed at determining how a knowledge of these conditions can be used in forest planting and managing white pine stands. This study is financed by the U.S. Forest Service.

Eastern Gall Rust on Jack Pine This is a serious disease of jack pine seedlings in the nurseries and plantations. The study is aimed at its prevention and control.

Oak Wilt This is a serious disease of oaks over much of Wisconsin and other states as well. The disease-causing organism has been identified and progress has been made in developing control methods.

Maple Blight Hard maples of all ages in certain areas of the state have died, causing a serious loss to the landowners concerned. The cause is not known. This study is aimed at finding the cause and, if possible, a control.

Hypoxylon Canker on Aspen Hypoxylon severely limits the productivity of aspen throughout the state. This study is aimed at determining how the fungus spreads and develops.

Poplar Improvement by Selection and Breeding Poplars have grown tremendously in importance as a commercial wood. There is a great variation in growth and disease resistance of different strains of poplar. The study has isolated a number of extremely rapidly growing poplars and these are being produced at a state nursery on a pilot plant basis for experimental plantings.

Weed Control This study is designed to develop chemical means of controlling undesirable vegetation in plantations and fire lanes.

Damping Off of Coniferous Seedlings Various organisms cause the death of forest nursery stock, often in large numbers. The study has developed methods of control and new improved control methods using fungicides and antibiotics are being studied.

FOREST SOILS RESEARCH

Forest soils studies are carried on by the Department of Soils in the College of Agriculture. This field of investigation is divided into those studies concerned with the management of soils in the state forest nurseries and those concerned with the management of forest lands as affected by their soils.

Consumption and Loss of Fertilizers Under Different Methods of Soil Management Fertilizer applications are necessary in the growing of trees in nurseries, however, it is believed that much fertilizer is lost in the soil. This study evaluates different fertilization methods and materials and it is hoped will lead to lower fertilizer costs.

Effect of Biocides on Nursery Soils Certain chemicals must be used for the control of insects and tree diseases in the forest nurseries. This study evaluates the long-range effects of these chemicals on the soil.

Development of Sawdust Composts Forest nursery soils require the application of large quantities of organic material. Peat and leaf litter have been the principal source of this material. This is expensive, however, and the treatment of sawdust to make an acceptable compost will result in substantial savings.

The Effect of Thinning and Selection Cuttings on Forest Soils The productivity of forest soils is affected by forest management methods. This study will evaluate the effect of different cutting methods on the soil.

Use of Fertilizers in Plantations and Natural Stands Many soils are too poor for rapid tree growth. This study will evaluate the possibilities, both biological and economic, of using fertilizers to speed up tree growth.

Development of Tree Planting Methods on Red Clay Soils The red clay soils along the south shore of Lake Superior make tree planting very difficult. This study is aimed at developing planting techniques which can be used on heavy soils, especially red clay .

FOREST GENETICS RESEARCH

Forest genetics research is carried on by the Department of Genetics of the College of Agriculture. The primary objective of this research is to furnish the state nurseries with seed from high quality trees. The following studies are active in this project:

The Selection and Testing of High Quality Forest Trees The basis of any breeding program is high quality parent stock. In this study seed and cuttings are obtained from trees which show desirable characteristics. These seeds and cuttings are then grown in the nursery and laboratory.

Controlled Breeding Once superior parent stock is selected, various strains are crossbred to produce trees of high quality and rapid growth.

Collecting pollen from a superior tree for breeding purposes.

Forest Tree Seed Orchard Establishment Trees of proven high quality are planted in orchards from which seed will eventually be harvested for planting in the state nurseries.

Verified Tree Seed Program In this study the few remaining natural stands of high quality trees in one state are set aside and managed for seed production. This program will produce seed prior to the time when seed orchards come into production.

Cone Crop Prediction Survey This study is made annually to determine in what years large quantities of wild seed will be produced. The results of the study are used in the seed purchase program for the state nurseries.

FORESTRY RESEARCH COSTS

During the past two fiscal years (1956–57 and 1957–58) expenditures for forestry research have amounted to 2.6 per cent of total forestry expenditures.

Following is a breakdown of Conservation Commission Forestry Research expenditures for the last two fiscal years:

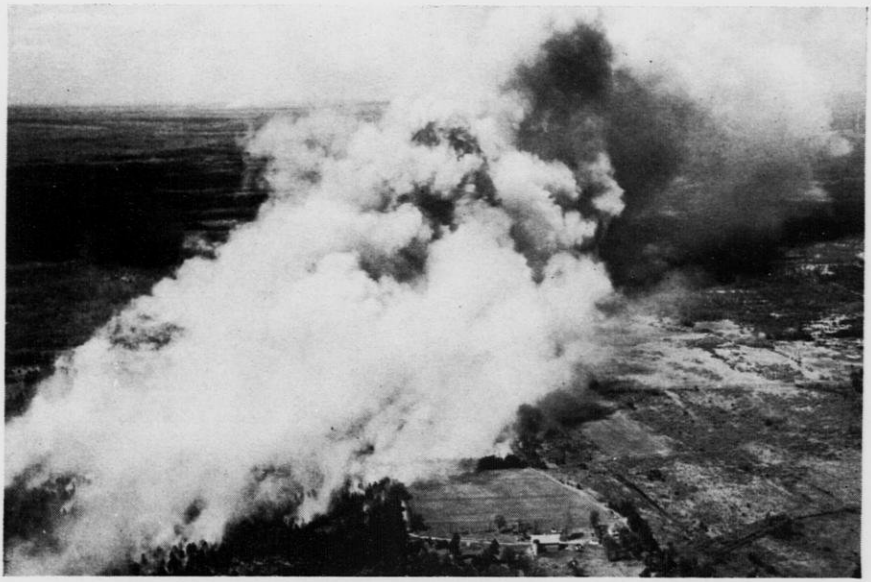
	(1956–57)	(1957–58)	Total
Research conducted at the Wisconsin Agricultural Experiment Station:			
Forest Insect Research	$ 38,086	$ 44,175	$ 82,261
Tree Disease Research	29,657	34,249	63,906
Forest Soils Research	21,775	27,903	49,678
Forest Genetics Research	19,907	20,673	40,580
Total	$109,425	$127,000	$236,425
Research conducted at the Lake States Forest Experiment Station:			
Forest Taxation Study	----------	$ 1,500	$ 1,500
Total All Forestry Research	$109,425	$128,500	$237,925

Forest Protection

The task of protecting the 16,808,000 acres of Wisconsin's woodlands is, of course, a tremendous one. To accomplish it successfully requires a large and efficient organization of well-trained, competent personnel dedicated to the preservation and protection of a great natural resource. Wisconsin has always been rich in terms of forested area. The wooded areas of Wisconsin vary from scattered woodlands in the southern part of the state to large dense unbroken areas in the north. While in the south fires start and do damage, the northern half is susceptible to fires that could reach catastrophic proportions in less than an hour's time.

Wisconsin, once the classic example of forest devastation, has now progressed far in solving its forest fire problem, but the threat of forest fires remains—as witness the Maine fires of 1947—for forest lands are highly inflammable when dry, and critical conditions are bound to occur from time to time, requiring constant vigilance and aggressive fire action.

A reasonable margin of safety beyond normal requirements is also essential since emergency conditions occur periodically and one bad year can wipe out all that has been gained in a generation. Fire control must seek to reach a point where fire losses can be so re-



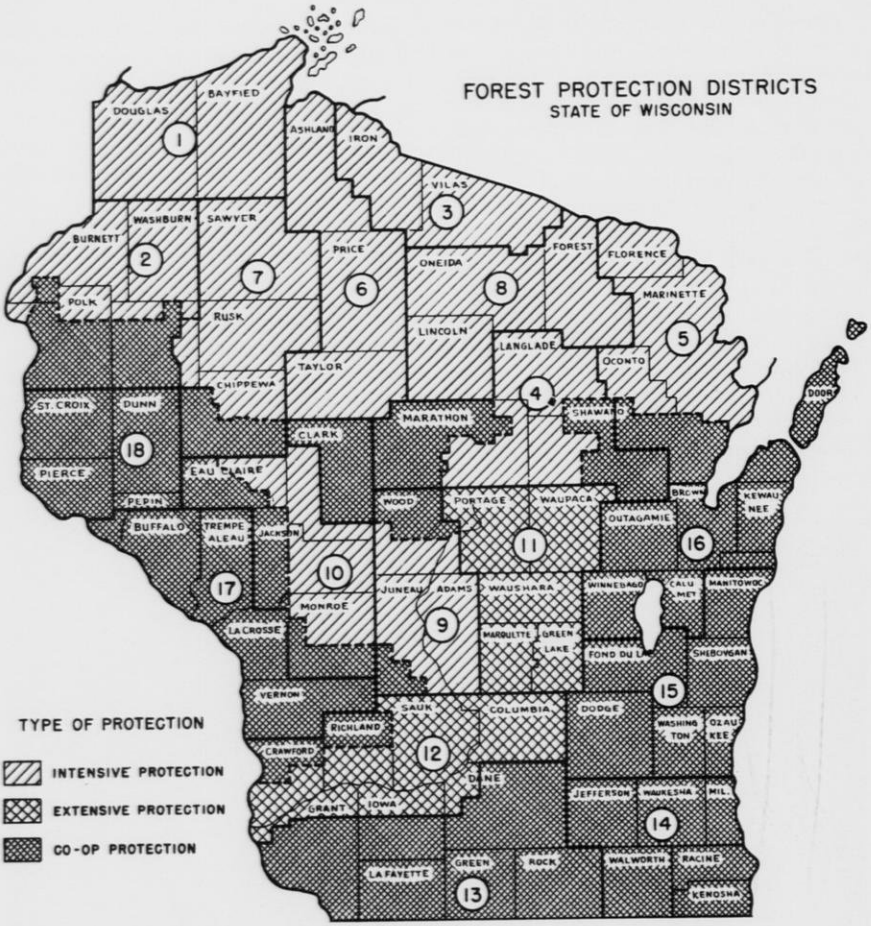
Although Wisconsin has an excellent record in forest protection, fires are with us yet. They could be highly devastating under extremely critical conditions.

duced that forest property becomes an insurable risk.

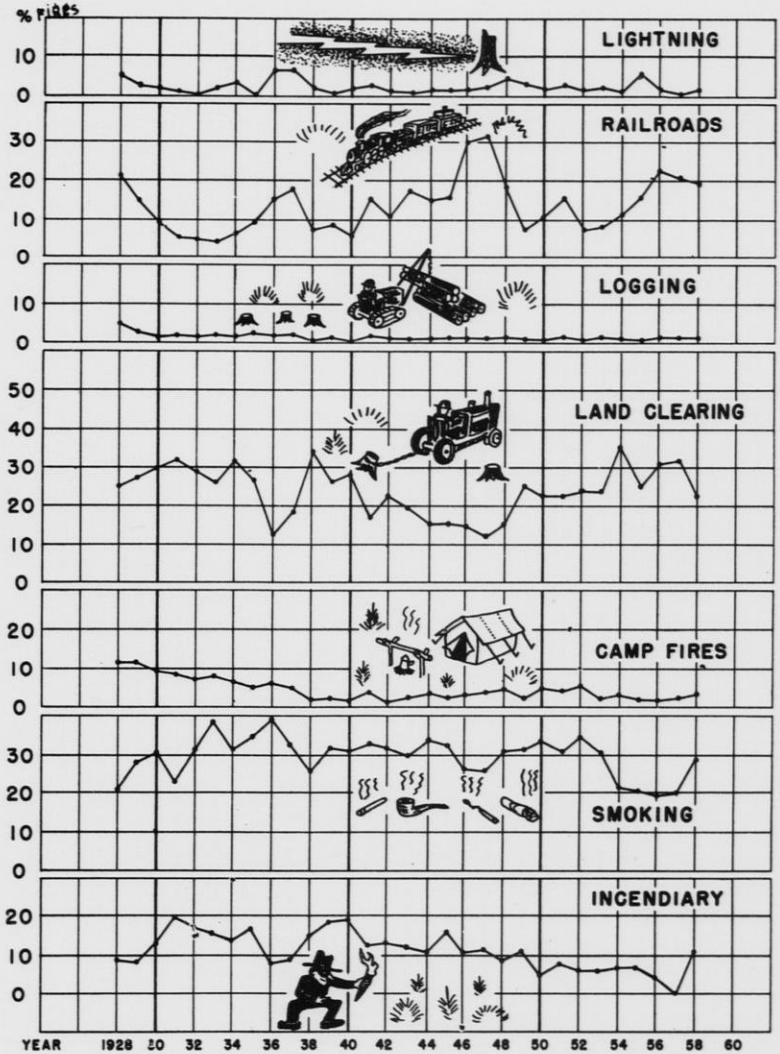
During the biennium the organization for state-wide protection was completed. Eighteen districts now provide protection in keeping with the forest cover need. They are divided into five supervisory areas, and the division as a whole is under the direction of the chief forest ranger.

The main objectives of the forest protection division are:

1. The prevention of forest fires through every available means.
2. The quick control and elimination of forest fires that do occur in spite of prevention measures.



The 1957 season began in February. April and May were the highest fire danger months. May had the largest acreage burned and damage reported. The summer months were about normal both in fire danger and number of fires. While late fall had a sharp decrease in



RELATIVE IMPORTANCE OF THE PRINCIPAL CAUSES OF FOREST FIRES BY YEARS – WIS. 1928-1958

danger rating, neither the fire occurrence nor acres burned were abnormal.

The 1958 season shows a sharp increase in the number of fires starting and acreage burned. Precipitation deficits continued to mount in the southern half of the state. In some locations, more than a 12″ deficit was recorded which serves to point out the problem and the need for added vigilance.

While the large-scale, clear-cut logging, unbroken slash areas, and exten-

sive land clearing are largely things of the past; in their place are many factors that make the forest fire control job in Wisconsin more difficult today. The ever-increasing number of modern man-made devices have increased both the risks and hazards of forest fire fighting. Increased population, shorter work week, tourist travel, and interest in outdoor recreation in forest areas of the state have multiplied the chances of man-caused fires.

Increased values of all resources in forest areas including man-made developments require more and more protection. Conifer plantations and splendid natural reproduction due to successful fire control during the last two decades have now reached a size and density which make them highly susceptible to disastrous fast-moving crown fires.

Natural reproduction of all types of forest cover is increasing the size of large unbroken forested areas formerly interspersed with non-productive grass barrens, abandoned farm lands, burned-over swamp areas, and severely burned slash areas. This condition makes control effort more difficult. Stepped-up harvest of hardwoods by pulp mills is producing thousands of new potentially dangerous slash areas scattered everywhere throughout the forested areas.

The greatly increased and expanding planting activities developed by certain federal aid programs such as the Soil Bank Program constantly build up special high value areas which require additional protection.

Twenty years of successful fire control is producing a dangerous complacency toward the ever-present forest fire menace. A continuous prevention campaign is necessary to maintain a forest-fire-consciousness and bring about a realization of the many other values besides wood products which are protected from fires. These values, include soil, water, recreational property, summer homes and resorts, public utility lines and installations, mining properties, watershed storage capacities, as well as the fish and wildlife food and habitat and many other associated items, which can be so quickly destroyed.

The progress and success can be quickly observed from Table I which shows the number of fires occurring by year and the acres burned since 1948:

Year	*No. of Fires*	*Acres Burned*
1948	1,825	23,574
1949	1,164	9,749
1950	669	2,313
1951	446	2,036
1952	1,246	4,962
1953	1,218	9,799
1954	957	6,736
1955	855	3,461
1956	1,073	5,601
1957	1,132	12,036
1958	1,354	15,423

Fire causes seem to have retained the same relationship. Although there was a slight decrease in railroad fires, there are still far too many fires starting from

Item	*Total*
Installations:	
Ranger stations	54
Fire observation towers	141
Circuit miles of telephone line	2,056
Radio base stations	13
Radio fixed stations**	7
Radio mobile stations	109
Radio packset stations	89
Radio aircraft mobile stations	5
Trucks:	
¾-Ton with tank and pump	44
1-Ton 4WD with tank and pump	33
2-Ton 2-speed with tank and pump	66
Miscellaneous types	52
Tractors:	
With water tanks and pumps	67
Miscellaneous without tanks	5
Plows:	
Heavy duty, tractor	81
Light duty, tractor	19
Trailers:	
Tilting bed	71
Water tank	65
Miscellaneous	71
Pumps:	
Portable	68
Trailer mounted	30

**Includes microwave terminals.

this cause. To minimize the railroad fire problem will require careful consideration of diesel fuel specifications with particular attention to carbon characteristics, and the instituting and maintaining of strict operating procedures that will assure that carbon deposits are ejected before the locomotives go into hazardous areas.

During the period of this biennium, fire control installations and major items of equipment were in constant use as shown in the preceding tabulation.

Sound legislation, consistent financial support, prevention through constructive action, preparation in advance of fires, and an active determined control program have all added up to good forest fire control in Wisconsin.

SOURCE OF REVENUE BY YEARS FOR TEN-YEAR PERIOD:

Year	*Contributed by State*	*Contributed by Federal Government*	*Contributed by Counties*	*Total Cost of Protection*
1948	$ 651,897	$315,707	$ 12,153	$ 979,757
1949	673,581	253,408	21,820	948,809
1950	737,169	276,795	13,439	1,027,403
1951	820,446	304,656	3,197	1,128,299
1952	895,224	341,927	8,724	1,245,875
1953	1,103,803	303,600	5,808	1,412,711
1954	1,100,101	294,644	7,937	1,402,682
1955	1,129,934	342,434	3,254	1,475,622
1956	1,344,834	311,177	6,672	1,662,683
1957	1,372,421	365,441	2,924	1,740,786

EXPENDITURES BY YEARS FOR TEN-YEAR PERIOD:

Year	*Administrative Expense*	*Field Personnel and Fire Fighters*	*Equipment and Improvements*	*Cost per Acre in Cents*	*Total Cost*
1948	$ 63,814	$ 795,637	$120,306	$ 6.1	$ 979,757
1949	45,855	779,438	123,616	5.9	948,809
1950	102,515	796,215	128,673	6.4	1,027,403
1951	119,974	863,735	144,590	7.0	1,128,299
1952	130,472	996,195	119,208	7.7	1,245,875
1953	127,518	1,153,487	131,706	8.8	1,412,711
1954	131,421	1,108,079	163,182	8.7	1,402,682
1955	147,392	1,150,516	177,714	9.6	1,475,622
1956	169,953	1,244,251	249,479	9.9	1,662,683
1957	176,843	1,371,199	192,744	10.4	1,740,786

Forest and Parks

STATE FORESTS

The citizens of Wisconsin have an ownership of over 356,800 acres in eight state forests. These lands have been acquired over a period of fifty-three years for the development and management of forestry and recreational purposes.

Although most of the acreage exists in the northern forests—Northern Highland, American Legion, Brule River, Flambeau River and Council Grounds State Forests—the addition of the Black River State Forest in the west central area has added over 59,000 acres near the more populated section of the state.

The southern forests, located in the more populated section of the state, are the two units of the Kettle Moraine State Forest and Point Beach State Forest. These forests have intensive recreational developments to provide for a tremendous usage each year.

RECREATIONAL USE

The state forests are being recognized for their recreational use as well as for forestry purposes, and represent the greatest areas for future recreational expansion that the state now owns. The

The Northern Highland state forest, a favorite with summer visitors, shows crowded camping conditions.

use of the state forests for camping, picnicking, hunting, fishing and other recreational uses is rapidly approaching the use being experienced in the state parks.

CAMPER DAYS—STATE FORESTS

(1957–58 Calendar Year)

Forest	*1957*	*1958*
American Legion	16,998	24,043
Black River		
Brule River	1,400	1,702
Council Grounds	1,461	1,380
Flambeau River	1,093	2,341
Kettle Moraine	54,388†	72,432†
Northern Highland	69,507*	81,112*
Point Beach	13,943	21,099†
	158,790	204,109

†Includes Group Camper Days.
*Includes canoe camping which is not registered.

The record total in 1958 represents a 57% rise over 1955 and can be expected to increase in the future. With this in mind, major campground improvements and expansions were undertaken in the Kettle Moraine, Point Beach, Northern Highland and Black River State Forests.

Attendance figures (based on mechanical car counters) for intensively used recreation areas in certain state forests indicate the trend in general recreational use in these areas. As the parks continue to be overcrowded, the forests will receive ever-increasing recreational use.

LAND ACQUISITION

Lands are continually in the process of being acquired to block out existing ownership and to provide acreage for future needs. A total of 4,445.81 acres was purchased at a cost of $184,585.72. Several islands, some scattered forest lands and 40 acres in the Big Foot Beach area were disposed of. The land at Big Foot Beach was sold at the local high school in accordance with Chapter 405 of the Laws of 1955.

The following tables show the lands purchased during the period of July 1, 1956, to June 30, 1958:

Forest	*Acreage*	*Cost*
American Legion	781.86	$ 17,778.94
Black River	160.00	7,614.00
Brule River	1,118.45	12,243.05
Flambeau River	379.28	21,220.00
Northern Highland	490.91	6,180.00
	2,930.50	$ 65,035.99
(Southern Forests)		
Kettle Moraine	1,607.86	$115,125.00
Point Beach	20.00	665.00
High Cliff	40.00	8,373.73
Big Foot Beach Area	7.45	3,000.00
	1,675.31	$127,163.73

HIGHWAY IMPROVEMENTS

These types of improvements are accomplished through the use of the State Park and Forest Road Fund as provided for in Chapter 84 of the statutes. Roads are constructed and maintained

VISITATIONS—INTENSIVE RECREATION AREAS

(1957–58 Calendar Year)

Forest	*1957*		*1958*	
	Visitors	*Cars*	*Visitors*	*Cars*
Council Grounds	70,017	18,415	83,571	18,677
Kettle Moraine	395,528	96,250	439,449	106,996
Point Beach	287,188	71,797	235,412	58,828
	752,733	186,462	758,432	184,501

with the advice and cooperation of the State Highway Commission.

Projects accomplished in the last two years include:

Black River

1. Four miles of new blacktop on the North Settlement Road in the Black River State Forest.

2. Regraded and graveled roads and camping area at Castle Mound Recreation Area—Black River State Forest.

Northern Forests

American Legion

1. Completed reconstruction of state forest road "D" between Lake Tomahawk and Hazelhurst—6.5 miles.
2. Reconstruction of entrance to Buffalo Lake campground—.6 miles.
3. Resurfaced road near Woodruff Fish Hatchery—2.3 miles.
4. Resurfaced road to Little Arbor Vitae Lake—2.5 miles.
5. Applied seal coat to state forest road "E"—3.9 miles.
6. Applied seal coat to state forest road "J"—10.75 miles.
7. Constructed entrance road to new Lake Tomahawk picnic area and boat landing—.25 miles.

Council Grounds

1. Seal coat surfacing on entrance road—3.5 miles.

Flambeau River

1. Completed section of Hawkins—Connor's Lake road—5 miles.
2. Reconstructed and resurfaced entrance road to Prison Camp—.4 mile.
3. South boundary road and fire lane opened—10 miles.

Northern Highland

1. Reconstructed and resurfaced County Trunk "H"—5 miles.
2. Seal coat surfacing applied to state forest road "M"—11 miles.
3. Grading and gravel on road to Mus-Ski Mountain ski area—.7 mile.
4. Completed relocating state forest road 'K"—1.5 miles.
5. Road in new Crystal Lake campground—1 mile.
6. New road at Boy Scout canoe base —.25 mile.

Southern Forests

Point Beach

1. Completed bituminous concrete resurfacing of interior roads—5.25 miles.

Kettle Moraine

1. Resurfacing at Mauthe Lake and adjacent Kettle Moraine Drive—1.12 miles.
2. Resurfacing parking area, boat landing and camp roads at Mauthe Lake.
3. Seal coat surfacing of Kettle Moraine Drive—3 miles.
4. Resurfacing of Kettle Moraine Drive—.5 mile.

In addition to these specific projects, normal summer and winter maintenance is carried on by Conservation Department personnel on more than 50 miles of primary and over 100 miles of secondary forest roads throughout the state.

BUILDING AND GROUNDS IMPROVEMENT

As a result of the tremendous increase in recreational use and other forestry activities, there is a constant need for improving and expanding existing facilities or constructing new ones.

Black River

A lookout platform was built on the trail over Castle Mound for better scenic viewing overlooking a wide panorama.

Office space, garage, shop and storage are being provided in a new service building which will be the forest headquarters. The residence has been remodeled at Castle Mound to make it possible to have an all-season caretaker.

American Legion

New wells were driven at the Clear Lake and Carroll Lake campgrounds. The Clear Lake area was enlarged to provide for 15 additional camp units. A parking lot and public boat landing were also constructed and the beach enlarged and improved. All toilets were remodeled with plexi-glass windows and interior painting.

A new picnic grounds with room for 30 families was built on Lake Tomahawk with adjacent parking area and boat landing.

Brule River

Improvements and expansion were undertaken at two campgrounds near Brule and on the boat landing and picnic area at Stone's Bridge.

Flambeau River

The campground and picnic area at Connor's Lake was enlarged by filling adjacent swampy spots. Two large pit toilets were constructed and one set of smaller toilets placed in the campgrounds. A new well was driven in the camp area.

Nine river canoe camp sites have been established. Five of the sites have pitcher pumps and others have boxed or tiled springs. Five new toilets were built and placed on canoe camp sites.

Eleven miles of telephone line were constructed for forest administration purposes.

Northern Highland

Several recreational facilities were enlarged, including a new road around Crystal Lake with completed tent campground; development of a beach and new picnic area the main accomplishments. Work on a new camp area at Upper Gresham Lake was also begun.

Assistance was given to the Lakeland Ski Association in developing a ski hill on Muskellunge Hill.

One hundred and fifty new picnic tables were constructed for new campgrounds and to replace old tables. Over 31 miles of survey line were run and 291 land corners set or perpetuated by permanent markers.

Kettle Moraine

Remodeling and enlargement of an existing bathhouse at the heavily used Mauthe Lake area, with flush toilets and changing area, was one of the most important projects completed. Additions were also made to the Mauthe Lake and Long Lake campgrounds.

A new steel, 4-stall garage was constructed at the Southern Unit headquarters at Eagle; also a new well was drilled. Sanitary facilities were added in the Boy Scout camporee area.

Construction of 190 new picnic tables was completed.

Point Beach

Several more camp units and new sanitary facilities were constructed in the camp area. Six worn out fireplaces were replaced with new metal grills. Two cottages were rehabilitated for use by Boy Scouts, Girl Scouts and such groups for organized camping.

FOREST PLANTING

This biennium, as in the past several bienniums, saw another decrease in the number of trees and total acres planted. The drop in reforestation is due to the great demand which is being placed on state nursery stock by private individuals and by groups such as 4–H and county forestry organizations working cooperatively with the Conservation Department. In some areas the easily planted sites have been utilized and present planting is on more difficult terrain.

FOREST PLANTING
(July 1, 1956–June 30, 1958)

Forest	Trees	Acres
American Legion	387,940	309.0
Black River	31,342	39.7
Brule River	33,000	32.0
Flambeau River	134,056	148.8
Kettle Moraine	439,800	330.5
Northern Highland	193,355	185.5
Point Beach	23,430	48.3
	1,242,923	1,093.8

Substantial amounts of Norway and white pine, white and Norway spruce, cedar and white ash were planted in the forests with some hard maple in certain areas.

FOREST PROTECTION–FIRE, INSECTS AND DISEASE

Fire damage to actual forested areas was negligible during the last biennium. Although 185 acres were burned over in the Kettle Moraine State Forest, the damage to timber was very low because the areas burned were primarily open grass land or marshy places. The cooperative effort of the public and department forces has been very instrumental in keeping this potential danger to a minimum figure.

A small outbreak of red-headed pine sawfly in the American Legion State Forest was confined to a 5-acre area.

Over 1500 acres in the Brule River State Forest were sprayed for jack pine budworm in 1957, and 2 miles of roadside Norway pine were sprayed for Saratoga spittlebug control.

Blister rust control work was done on 3,600 acres in the Flambeau River. Timber salvage of 760 acres, killed by the hemlock borer, was completed in the Big Block.

In the Northern Highland State Forest, 351 acres of Norway and jack pine plantations were sprayed with DDT in 1956 to control the Saratoga spittlebug. No control was needed in 1957.

The only forest insect causing much trouble in the Southern Forests was the European pine shoot moth which has caused considerable damage to the Norway pine plantations at Point Beach State Forest. White pine blister rust control crews have done considerable work on the Kettle Moraine State Forest.

SALE OF FOREST PRODUCTS

Timber sale receipts for the Northern Forests increased slightly over the previous biennium with a gross income of $207,084.67. The Southern forests being limited to sale of Christmas trees, boughs and a small amount of sawtimber, reported receipts of $13,839.70.

Timber sales and stumpage products removed from the Black River State Forest totaled $22,263.51.

NORTHERN FORESTS

Forest	Pulpwood and Bolts—Cords	Saw-timber Board Feet	Misc. Products
American Legion	15,257.67	591,570	33
Brule River	1,386.07		447
Flambeau River	368.32	305,420	304
Northern Highland	33,137.13	1,161,455	14
Total	50,149.19	2,058,445	798
Total Gross Revenue—$207,084.67			

SOUTHERN FORESTS

Forest	Christmas Trees	Christmas Greens—Pounds	Saw-timber Board Feet
Kettle Moraine	14,981.00	69,065	5,590
Total Gross Revenue—$13,839.70			

STATE FOREST INCOME 1956–1958

(Ending June 30, 1958)

State Forests	*Camping*	*Timber Sales*	*Mess Hall*	*Rent Mntce. Land Use*	*Concessions*	*Misc.*	*Total*
American Legion	$ 3,153.00	$ 59,493.48	$	$	$	$ 317.00	$ 62,963.48
Black River	268.60	18,557.86				435.35	19,261.81
Brule	181.00	7,576.05				10.00	7,767.05
Council Grounds	250.00					10.00	260.00
Flambeau	170.50	13,421.52				1,028.18	14,620.20
Northern Highland	8,196.50	131,586.75	5,594.40	4,381.07		7,608.60	157,367.32
Big Foot Beach	6,365.88			1,350.00	1,698.25	731.53	10,145.66
High Cliff						34.81	34.81
Northern Purchase Unit	10,770.70	8,231.34		8,688.00	2,447.46	6,348.26	36,485.76
Point Beach	4,957.35			527.00	1,340.00	2,142.29	8,966.64
Southern Purchase Unit	621.25	5,406.35		2,971.00		1,360.95	10,359.55
Total	$ 34,934.78	$244,273.35	$ 5,594.40	$ 17,917.07	$ 5,485.71	$ 20,026.97	$328,232.28

APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST LANDS

(Section 25.30, Wisconsin Statutes)

Of the revenue received, 25% is returned to the county in which the forest lies and wood products were cut. This is in accordance with Section 25.30 of the Wisconsin Statutes. The following apportionment is made on the basis of state forest acreages as of June 30, 1958:

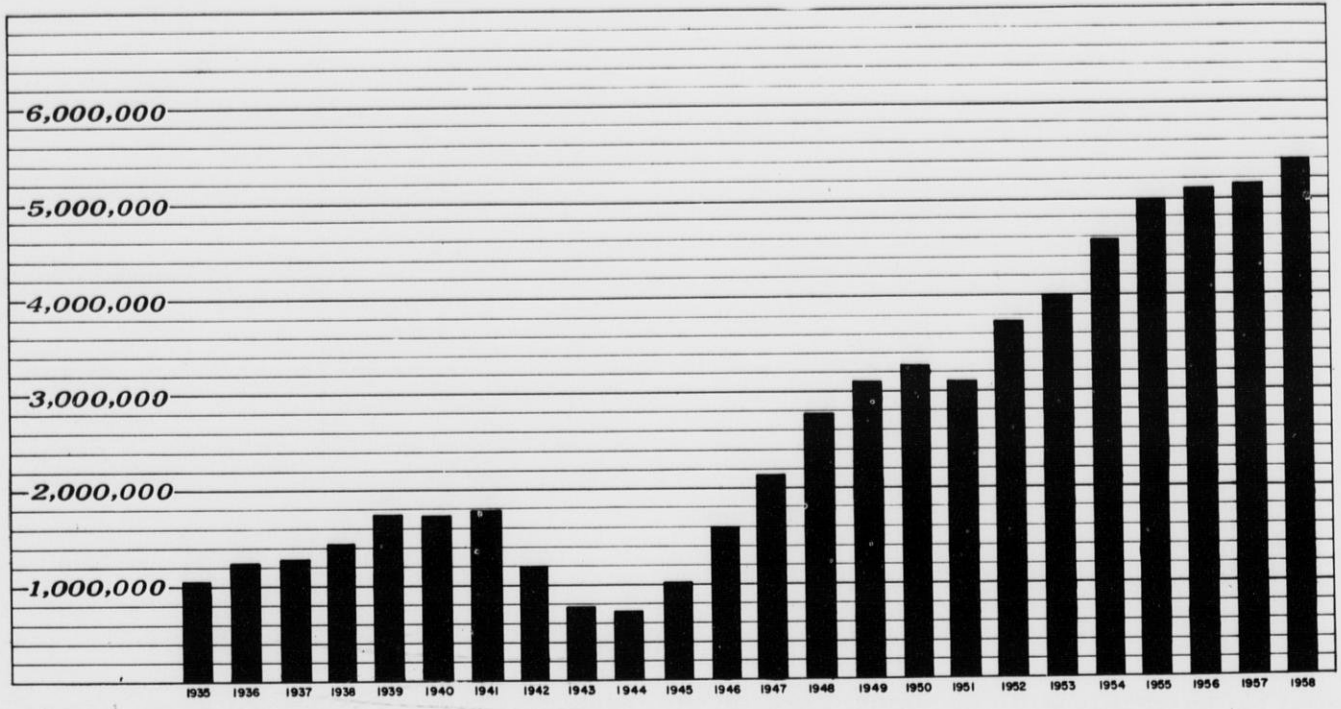
Forest, County and Town		*Town Acreage*	*County Acreage*	*Per Cent of County to Forest Total*	*Total Revenue by Forest*	*25% Due Counties*
American Legion						
Oneida	Lake Tomahawk	8,457.81				
	Newbold	10,917.56				
	Sugar Camp	7,880.40				
	Woodruff	11,280.56		100	$ 27,203.04	$ 6,800.76
			38,536.33			
Brule River						
Douglas	Bennett	720.00				
	Brule	6,238.07				
	Highland	10,132.78				
	Solon Springs	4,263.79				
	Wascott	1,987.69		100	1,506.94	376.74
			23,342.33			
Flambeau River						
Price	Flambeau	1,316.98				
	Lake	5,991.30	7,308.28	9.872		141.16
Rusk	Cedar Rapids	5,246.21				
	South Fork	4,322.11	9,568.32	12.926		184.83
Sawyer	Draper	11,231.19				
	Winter	45,917.95	57,149.14	77.202		1,103.90
			74,025.74		5,719.57	$ 1,429.89
Kettle Moraine						
Fond du Lac	Auburn	2,523.11				
	Osceola	1,632.03	4,155.14	20.77		$ 234.79
Jefferson	Palmyra	996.01	996.01	4.979	$	$ 56.29

APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST LANDS

(Section 25.30, Wisconsin Statutes—Continued)

Forest, County and Town		*Town Acreage*	*County Acreage*	*Per Cent of County to Forest Total*	*Total Revenue by Forest*	*25% Due Counties*
Sheboygan	Greenbush	2,615.84				
	Mitchell	3,941.70				
	Plymouth	41.03				
	Scott	1,324.11	7,922.68	39.603		447.70
Walworth	La Grange	1,100.28				
	Whitewater	418.44	1,518.72	7.592		85.83
Washington	Kewaskum	636.52	636.52	3.182		35.97
Waukesha	Delafield	80.00				
	Eagle	2,239.88				
	Ottawa	2,456.20	4,776.08	23.874		269.88
			20,005.15		$ 4,521.55	$ 1,130.46
Northern Highland						
Iron	Mercer	7,244.96				
	Sherman	5,113.77	12,358.73	9.96		$ 1,597.43
Vilas	Arbor Vitae	24,722.87				
	Boulder Junction	34,475.63				
	Land O' Lakes	5,776.16				
	Manitowish Waters	4,650.74				
	Plum Lake	31,811.28				
	Presque Isle	4,752.66				
	St. Germain	3,650.07				
	Winchester	1,880.00	111,719.41	90.04		14,441.03
			124,078.14		64,153.84	$16,038.46
Black River						
Jackson	Brockway	3,174.38				
	Knapp	44.00				
	W. Komensky	17,627.55				
	Manchester	129.73				
	Millston	38,596.77	59,572.43	100	$ 22,263.51	$ 5,565.88
Totals			339,560.12		$125,368.75	$31,342.19

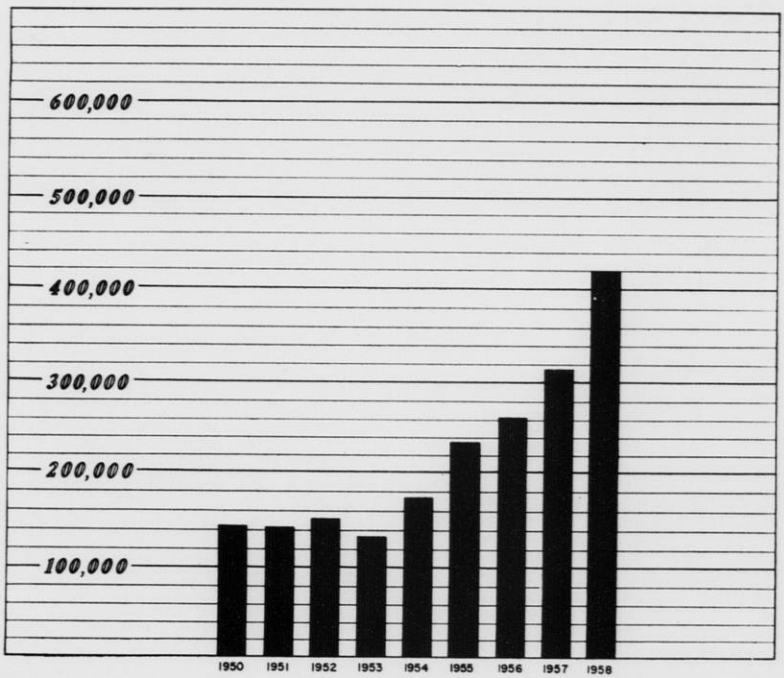
STATE PARK VISITATIONS 1935-1958

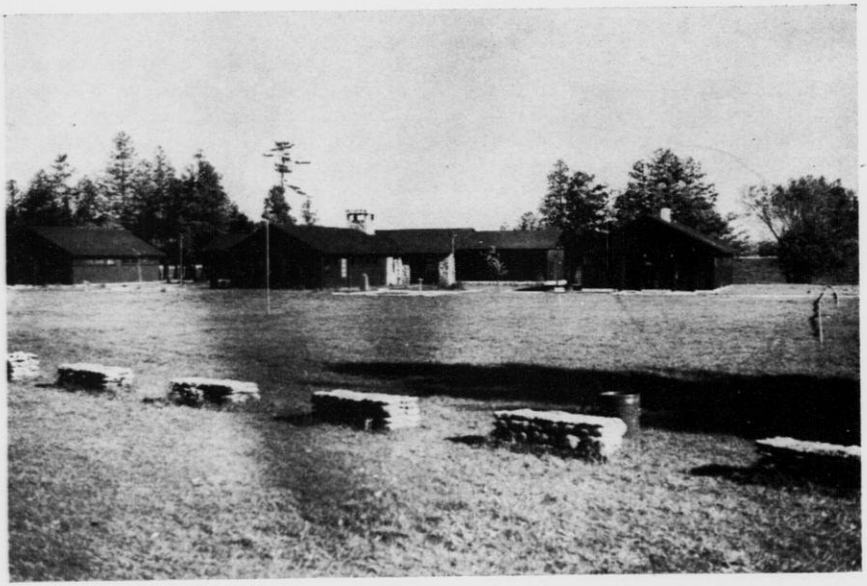


STATE PARKS

Our state parks play a major role in the total recreation picture of Wisconsin. They are visited by over 5,000,000 people each year and provide areas where the best examples of scenic, historical and natural history are located in our state. From its beginning, almost 60 years ago, at Interstate Park the system has grown to thirty-one properties of almost 18,500 acres which serve an ever increasing public demand. Not only do they serve the citizens of Wisconsin but the visitors from other states, Canada and many foreign countries. With the expected rise in leisure time and more recreational time resulting, it can be expected that parks will continue to be of great importance to Wisconsin.

The past biennium has shown an increase in use as more than 10,600,000 visitations were recorded. This is a 6% increase over the 1954–1956 period and a 64% increase from 1950 to 1958. Although this increase is significant, family camping in 1958 rose at the alarming rate of 60% over 1956 and 193% over 1950. This development has caused much concern and has resulted in increased work being done in the camp areas which are very inadequate at the present time. All parks realized an increase in family camping but the smaller parks





Facilities at state parks have been improved as much as possible with the limited funds available. These buildings are at Nicolet Bay, Peninsula state park.

received higher proportionate usage while the larger parks are at peak usage. Camping was limited to a three consecutive weeks' stay from July 1 through Labor Day in the major camping areas.

STATE PARK ROAD IMPROVEMENTS

Under the law $500,000 is set aside annually by the State Highway Commission for the State Park and Forest Road Fund. This fund is available for use in both state parks and forests for internal road improvements and connecting roads to main highways as well as maintenance and new construction.

With the use of this fund it was possible to construct 13 new parking lots and 2.5 miles of road and resurface an additional 25.23 miles. This fund enables the parks to have an outstanding road system which would not be possible without it.

State Park Roads—1956 to 1958

Park	*New Construction Miles*	*Bituminous Surfacing Miles*	*Parking Lot Construction*
Copper Falls	.65	.65	1
Devil's Lake	1.00	6.0	2
Gov. Dodge		2.1	
Interstate		1.5	
Pattison			2
Peninsula			1
Perrot		.65	
Potawatomi	.35	2.00	3
Terry Andrae	.50	.50	3
Tower Hill		(Parking Lot)	
Wildcat Mt.		.83	1
Wyalusing		11.0	
Total	2.5	25.23	13

STATE PARK IMPROVEMENTS

All state parks were maintained as adequately as possible with the limited funds available, and some capital improvements were accomplished, mostly with money still available from the special legislative appropriation.

Work was completed on the Nicolet Bay concession, bath houses and sanitary facilities at Peninsula State Park. The shelters at Nicolet Bay and Wecher's Point–Peninsula State Park—were completely remodeled. Two sets of toilets were remodeled at the Nicolet Bay Camp ground. Considerable work was done on a permanent watering system for the golf course. There were 165 new picnic tables constructed for Peninsula and Potawatomi State Parks. At Potawatomi the service area and sanitary facilities were completed. Two sets of older toilets were remodeled and a new well was drilled at the new picnic area on Sturgeon Bay.

Sixty-five picnic tables were built at Terry Andrae State Park, and the camping area at that park was completely reconstructed. Work was begun on a camp building which will provide shelter, toilets, showers and laundry facilities for the campers. Reconstruction of the stockade at Aztalan continued as about 1,000 creosoted poles were erected. The corners of the stockaded area have been defined and future work will fill the open spaces of the stockade. Two small toilets were constructed at High Cliff to serve the small picnic areas. Cleanup work continued in the quarry and kiln areas.

At Brunet Island a modern toilet building with sewage disposal system was completed and was a much needed addition. One wing of the main shelter building at Copper Falls was completely reshingled. Some work was also done on the Loon Lake beach which is receiving increased use. New boundary lines were surveyed for future fencing. Four new pit-type toilets were completed at Interstate Park and six others were remodeled with fiber glass paneling, light interior paint and new exterior paint.

A new bathhouse and sewage system were constructed at Lucius Woods, a very important roadside state park. Plans are in process for a much needed new camp area here. The interior of the bathhouse at Pattison was completely remodeled and the building reshingled. One wing of the large shelter was also reshingled. At Rib Mountain the new sun porch, sanitary and first-aid facilities were completed in time for the 1957–58 ski season. Improvements were made to the ski tows and trails and a 60-foot lookout tower was constructed.

Additional work was done on the south shore camp area at Devil's Lake State Park to help alleviate the serious camping problem. A new toilet building and a new bathhouse were constructed at the south shore also. A landscaping program was started for these new buildings, to be completed over a three-year period. The dam was completed at Governor Dodge, and with the closing of the bottom valve a backwater has begun to form. Rough grading was completed on the beach area and boat marina. Several miles of fencing were erected around the boundary and considerable timber harvested from the future lake bottom.

Landscaping of the First Capitol building and Supreme Court building was completed for the dedication in the fall of 1957. At Wildcat Mountain two toilets of the new design were constructed and a well drilled. Wyalusing State Park installed a new pump and pressure system to provide a better water supply to meet increased needs. One wing of the large shelter was reshingled.

Plans have been prepared for new or expanded camp areas at all major parks and at many of the smaller parks. Development plans have been prepared or brought up to date for twenty-one of the parks and a number of recreation areas and campgrounds on the state forests. These development plans include land ownership, land acquisition and facility development maps as well as information on utilities, topography, and

STATE PARK INCOME 1956–1958

(Ending June 30, 1958)

State Parks	*Camping*	*Rent Mntce. Land Use*	*Golfing*	*Ski Tow*	*Concessions*	*Misc.*	*Total*
Aztalan	$	$ 750.50	$	$	$	$	$ 750.50
Brunet Island	2,866.15	720.00			130.00	99.65	3,815.80
Copper Falls	2,061.91	600.00			2,520.00		5,181.91
Cushing Memorial						40.00	40.00
Devil's Lake	54,307.92	13,385.80			15,252.50	1,633.29	84,579.51
Interstate	2,851.00	4,802.10			226.80	1,006.29	8,886.19
Lucius Woods	423.80						423.80
Merrick	953.75				100.00	147.75	1,201.50
Mill Bluff	107.75						107.75
Nelson Dewey	103.75					647.85	751.60
New Glarus	28.50						28.50
Ojibwa	153.30						153.30
Pattison	2,821.30	840.00			2,286.50	52.45	6,000.25
Peninsula	28,426.65	2,094.00	42,720.75		2,321.50	3,221.21	78,784.11
Perrot	533.75	20.00					553.75
Potawatomi	2,728.15			1,296.96		568.71	4,593.82
Rib Mountain	1,104.80	482.25		25,321.14		80.00	26,988.49
Roche a Cri	228.50						228.50
Rocky Arbor	3,556.25				200.00		3,756.25
Terry Andrae	6,564.30	1,032.00			1,050.00	21.00	8,667.30
Tower Hill	645.25	532.00			100.00	20.00	1,297.25
Wildcat	127.00	554.00			160.00	1,387.00	2,228.00
Wyalusing	3,586.59				157.00	1,349.81	5,093.40
Total	$114,180.37	$ 25,812.65	$ 42,720.75	$ 26,618.40	$ 24,504.30	$ 10,275.01	$244,111.48

natural history. This planning is done by the new Park Planning Section in cooperation with the property managers and area supervisors.

A naturalist program was started at Devil's Lake and Peninsula State Parks which consisted of nature walks and evening programs, conducted by seasonal park naturalists. In addition to these programs, self-guiding nature trails were begun at Castle Mound, Devil's Lake and High Cliff. Trails have been in existence at Point Beach State Forest and Mauthe Lake–Kettle Moraine State Forest—for some time. The programs and the trails were well accepted by visitors and many favorable comments registered with the guides.

LAND ACQUISITION

There is no actual land acquisition program in the state parks at the present time because of the small amount which could be budgeted for this purpose under the inadequate park financing system now in effect. Several areas of major significance are now under consideration as state parks if future financing or appropriations are forthcoming.

LAND ACQUISITION 1957–1958

Park	*Acres*	*Cost*
Devil's Lake	.06	$ 100.00
Devil's Lake	------	5,000.00*
Gov. Dodge	26.66	400.00
Subtotal	26.72	$5,500.00
Terry Andrae	18.39	Gift
Total	45.11	

*Residual rights in an existing leasehold.

STATE PARK ATTENDANCE–1957–1958 CALENDAR YEARS

	Number of Visitors		*Number of Cars*		*Camper Days*	
	1957	*1958*	*1957*	*1958*	*1957*	*1958*
Aztalan	8,748	23,303	2,166	5,802	------	------
Big Foot Beach	223,707	226,367	52,303	49,628	18,261	27,930
Brunet Island	197,963	247,546	49,115	61,400	8,905	10,725
Castle Mound	36,789	43,035	9,256	10,814	1,721	2,220
Copper Falls	114,512	139,091	25,956	34,656	5,295	7,135
Cushing Memorial	26,813	31,180	6,724	7,885	------	------
Devil's Lake	1,269,406	1,495,116	317,264	376,318	139,827	172,393
Parfrey's Glen	------	13,800	------	3,450	------	------
First Capitol	13,400	9,934	3,350	652	------	------
Governor Dodge	40,000	62,532	10,000	15,633	------	------
High Cliff	17,144	54,324	4,287	13,590	------	------
Interstate	409,288	388,120	107,943	94,310	11,433	14,659
Lizard Mound	22,282	28,742	5,587	7,204	------	------
Lost Dauphin	4,996	5,296	1,296	1,324	------	------
Lucius Woods	181,470	154,036	46,468	38,509	2,665	4,857
Merrick	284,728	220,504	71,082	56,226	2,367	5,301
Mill Bluff	44,766	39,916	8,113	9,979	849	895
Nelson Dewey	58,289	65,140	13,194	16,235	351	1,182
New Glarus Woods	8,010	7,125	1,729	1,640	228	376
Old Wade House	27,897	31,434	5,832	4,980	------	------
Ojibwa	16,193	15,691	3,962	4,181	898	1,478
Pattison	383,490	341,251	96,433	85,641	8,369	12,696
Peninsula	571,884	548,287	142,973	137,208	65,401	81,719
Perrot	90,286	142,805	22,654	34,916	1,358	3,412
Potawatomi	316,703	266,328	79,150	67,357	8,078	9,152
Rib Mountain	221,455	231,840	55,767	58,525	2,847	3,472
Roche a Cri	32,026	51,024	7,969	16,386	1,280	1,984
Rocky Arbor	114,708	126,313	27,996	32,276	9,240	12,799
Terry Andrae	167,042	204,544	41,763	51,136	16,538	23,403
Tower Hill	72,108	80,566	18,049	20,424	1,567	2,402
Wildcat Mountain	45,264	63,240	11,316	15,810	583	1,264
Wyalusing	105,970	133,444	26,491	33,361	7,527	11,997
Total	5,127,337	5,491,874	1,276,188	1,367,456	315,588	413,451

STATE NURSERIES

Although the number of trees distributed in 1958 by the nurseries was the second highest in the 47-year history of state nurseries, the plan is for ever increasing distribution in the future. Over one-half BILLION trees have been distributed by the nurseries since their beginning. At the present time there are six nurseries operated by the Division of Forests and Parks at the following locations: Trout Lake Nursery, Boulder Junction; Hugo Sauer Nursery, Rhinelander; Hayward Nursery at Hayward; Gordon Nursery at Gordon; Griffith Nursery, Wisconsin Rapids and Boscobel Nursery at Boscobel.

These six nurseries produced and distributed over 72,000,000 two, three and four-year-old trees in the past two years, an all-time high for a similar period. In spite of the fact that generally there was an over-demand for most varieties of stock, some were still in surplus. The Conservation Department must continue to go out of the state to purchase tree stock to help meet the demand of residents interested in reforestation. Heavier seeding and greater production will help alleviate the existing shortage which is resulting from the Soil Bank program and better farm practices.

Commercial nurseries supply a relatively small amount of forest planting stock, causing many landowners to go great distances to purchase their stock if Department stock is not available. A commercial market exists for this type of material but has not been exploited to the optimum degree. Several paper companies maintain their own nurseries as they carry on a large industrial forest planting program.

The addition of new facilities and equipment at several nurseries should help speed up distribution of stock to the users. Conveyers, special tapes and other mechanized equipment provide faster and more economic handling of material during the three to four-week rush period in the spring. As more trees are produced, this problem will be accentuated, and one of the methods to relieve this situation will be to increase shipments in the fall of the year.

FOREST NURSERY STOCK INVENTORIES

Again there was a substantial gain in the stock inventory over the last two years. At the end of the 1958 season there were over 136,000,000 trees in the nurseries, which is an increase of 20,000,000 over 1956. This increase indicates the results of the expansion program which was begun four years ago.

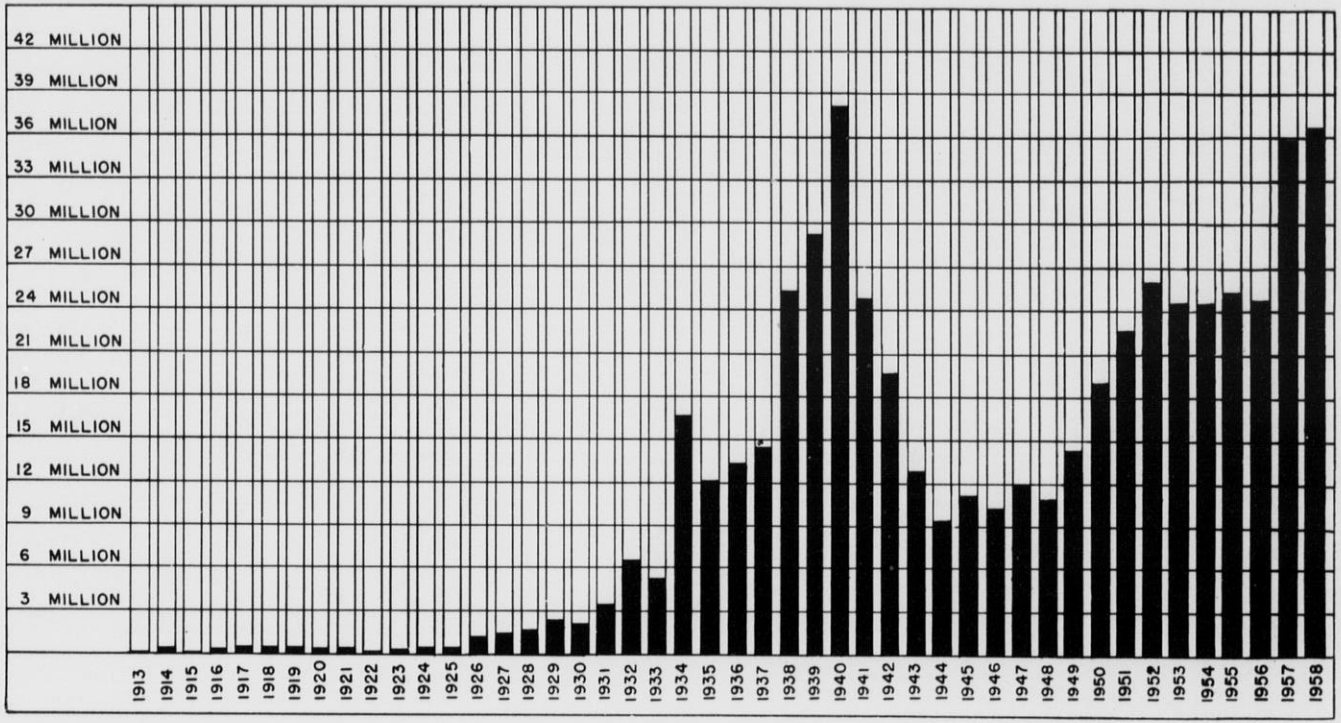
EMPLOYMENT

Sufficient seasonal workers for the spring rush season and normal summer operations were available through the cooperation of the State Employment Service. Use of State Prison Forestry Camp personnel was utilized at the Gordon and Rhinelander Nurseries as these camps are located nearby.

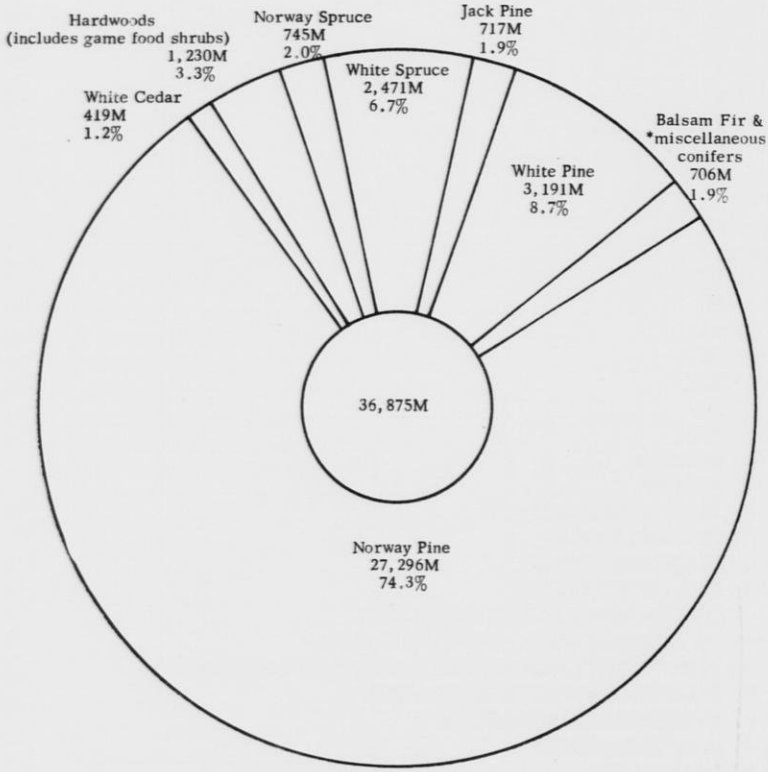
FOREST AND NURSERY RESEARCH

Damping-off fungi, a long-time damaging disease in newly germinating seedlings, is becoming more prevalent in the northern nurseries. This fungus has always been troublesome at Griffith and Boscobel where seed pelleting over the past few years has been a common procedure. These measures of control will now be used in the northern nurseries also. Meanwhile, research studies in new fungicides are currently being carried on with particular stress placed on Mylone and Vapam. In all of these treatments, however, caution must be used in the possibility of disrupting beneficial soil organisms.

DISTRIBUTION BY STATE NURSERIES 1913 — 1958



FIELD PLANTING OF TREES BY SPECIES



* Includes Tamarack 3 M & Black Spruce 3 M

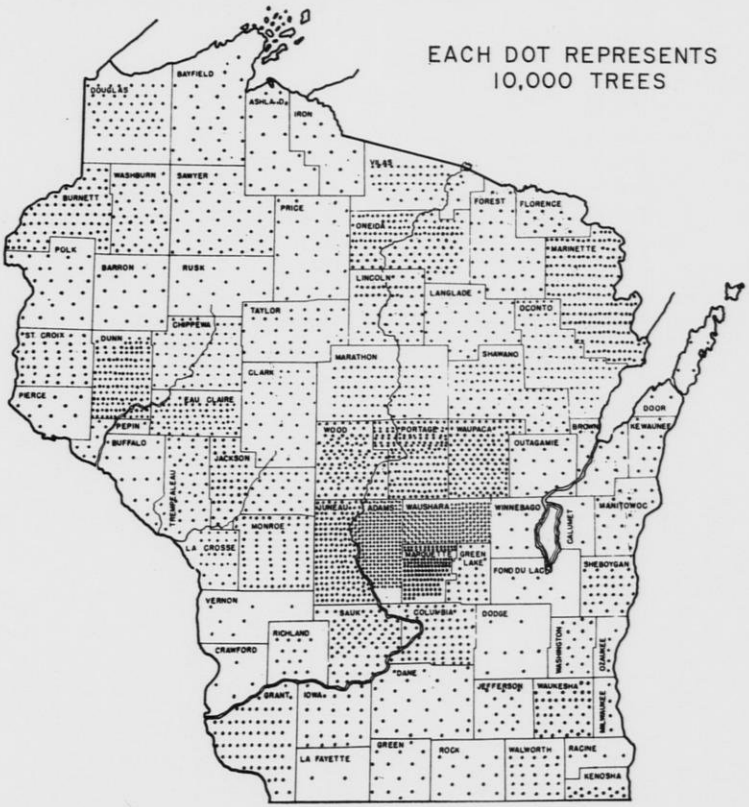
The pine aphid or bark louse was again prevalent this year at most nurseries. This pest is becoming serious, and while control measures are being carried on, these efforts will probably have to be increased.

The red spider was quite bothersome at the Griffith Nursery during the past season; however, control measures are quite effective with the use of Nicotine Sulphate and Malathion.

SEEDING AND TRANSPLANTING

The cone crop in the Lake States for the 1958 season was light. The only appreciable amount of cones collected was from plantations in the central part of the state. Norway and white pine seed in storage is ample for several years to come; however, white spruce is needed to carry on planned production in this particular species.

DISTRIBUTION OF TREES BY COUNTY



The following quantities of cones were purchased at the several Department collection stations during the fall season of 1958:

Norway Pine	1,118.46	@	$6.00 per bushel
White Pine	865.13	@	2.00 per bushel
Norway Spruce	14.9	@	3.50 per bushel
White Spruce	158.69	@	7.00 per bushel

Severe frost heaving of white pine one-year seedlings and white spruce three-year transplants occurred at the Griffith Nursery. The winter was again an open one with little snow covering which normally would act as a mulch to these seedlings with small root systems.

Less than the desired germination again occurred in several lots of purchased seed. Apparently the seed was much older than labelled with resultant poor vigor and germinative capacity.

The Hayward and Gordon nurseries experienced some damage from several severe hailstorms during the summer season. Also, these same nurseries suffered from unusually heavy rainfalls which caused washing and, in some cases, sand splash. On the other hand, the central and southern parts of the state had to irrigate heavily to overcome

DISTRIBUTION BY NURSERIES OF SPECIES

All Nurseries—State, County and Federal—Year of 1958

Species	*Griffith State*	*Trout Lake State*	*Gordon State*	*Hayward State*	*Hugo Sauer State*	*Boscobel State*	*Clark County*	*Marathon County*	*Toumey Federal*	*Totals*
Norway Pine	14,654,147	1,003,850	3,023,020	2,803,083	4,242,010	1,411,400	118,565	40,000	100,000	27,396,075
White Pine	1,862,425	74,400	180,900	297,660	216,350	486,565	73,200			3,191,500
Norway Spruce	395,330	15,250	80,825	71,425	56,425	111,000		15,000		745,255
White Spruce	678,500	146,550	261,960	313,059	796,664	89,065		40,000	205,000	2,470,798
Jack Pine	210,625	32,150	92,830	83,695	245,825	51,575				716,700
Balsam Fir	224,300	60,450	46,775	95,125	259,225	13,850				699,725
White Cedar	195,000	11,650	29,075	44,709	37,525	100,945				418,895
Black Locust	19,175	1,125	3,650	1,700	3,850	8,800				38,300
White Ash	33,200	3,200	3,550	3,475	11,425	16,025				70,875
Hard Maple	15,400									15,400
Black Spruce					3,000					3,000
Tamarack					2,900					2,900
Game Food						1,105,750				1,105,750
TOTALS	18,288,102	1,348,625	3,662,585	3,713,922	5,875,199	3,394,975	191,765	95,000	305,000	36,875,173

drought conditions. At the Griffith Nursery in central Wisconsin, 1958 began with a deficiency of 6" in precipitation, and as of October 1 the record showed another 8" below normal.

NEW IMPROVEMENTS

The Soil Bank program has made financial assistance available to the forest nurseries in various ways. An important advance has been made in construction of new buildings. The office building at Griffith Nursery, the headquarters for state nursery operations, was remodeled and enlarged to more efficiently handle the increased nursery demands. At the Boscobel Nursery a new office, a pumphouse and a combination packing–storage–shipping shed were completed and in use for 1958. Several new sections of the nursery were provided with sprinkling systems.

Improvements are being made on the packing sheds at Gordon and Rhinelander Nurseries, and a new seed extractory is being constructed at Hayward and should be in operation next year. Outdated trucks, tractors and other equipment are being replaced with the aid of the Soil Bank program at all nurseries.

TREES DISTRIBUTED THROUGH STATE CHANNELS

Year	*Game Food Shrubs*	*Totals*	*Year*	*Game Food Shrubs*	*Totals*
1911		192,300	1935		12,113,904
1912		18,000	1936		13,127,706
1913		68,500	1937		14,514,091
1914		478,630	1938		25,305,986
1915		77,400	1939	41,000	29,151,387*
1916		326,850	1940	123,000	38,229,306*
1917		604,630	1941	267,488	25,226,128*
1918		508,763	1942	404,385	19,705,750*
1919		510,051	1943	241,419	13,240,951*
1920		320,557	1944	214,996	9,412,456*
1921		455,526	1945	157,855	11,324,163*
1922		123,552	1946	234,880	10,626,647*
1923		354,060	1947	134,765	12,060,417*
1924		410,300	1948	172,075	11,066,947*
1925		511,238	1949	232,300	14,642,375*
1926		1,172,697	1950	618,690	19,129,975*
1927		1,617,249	1951	954,268	22,823,100*
1928		1,738,664	1952	2,658,525	26,337,565*
1929		2,416,017	1953	1,167,975	24,499,914*
1930		2,166,575	1954	1,258,845	24,596,441*
1931		3,354,600	1955	599,350	25,268,204*
1932		6,581,815	1956	1,924,850	24,663,834*
1933		5,141,000	1957	3,172,675	35,972,547*
1934		16,696,510	1958	1,105,750	36,875,173*
			Totals	15,685,091	545,760,451*

*Game Food Shrubs included in total figures.

STATE NURSERY TREE DISTRIBUTION BY COUNTY

All Nurseries—State, County and Federal—Year of 1958

County	State Forests	County Forests	*Extension	**Private	†General	Total	No. of Orders
Adams			36,000	2,495,795		2,531,795	300
Ashland		12,500	13,675	157,600	5,000	188,775	47
Barron			54,175	129,450	1,000	184,625	90
Bayfield		99,430	6,575	177,050	5,000	288,055	53
Brown			20,500	101,050	17,500	139,050	74
Buffalo			20,875	125,600	2,000	148,475	49
Burnett		189,600	37,750	470,525		697,875	108
Calumet			2,575	14,250	2,000	18,825	22
Chippewa		9,500	60,950	584,975	16,350	671,775	159
Clark		191,765	56,075	163,550	5,000	416,390	99
Columbia			56,300	621,700	7,600	685,600	237
Crawford			26,200	14,300	100	40,600	32
Dane			22,775	267,500	28,750	319,025	137
Dodge			4,125	74,325	6,500	84,950	43
Door			19,100	52,075	2,000	73,175	49
Douglas	33,000	124,415	22,425	397,925	5,750	583,515	115
Dunn			32,000	1,307,370	9,000	1,348,370	236
Eau Claire		100,000	59,075	532,450	49,225	740,750	161
Florence		45,000		79,950		124,950	30
Fond du Lac	10,300		6,675	57,075		74,050	45
Forest			16,350	370,550		386,900	81
Grant			19,650	616,605	5,075	641,330	105
Green			19,400	118,300	9,000	146,700	50
Green Lake			16,700	246,700	3,000	266,400	90
Iowa			41,550	212,800		254,350	78
Iron		31,000	12,000	81,000		124,000	32
Jackson	31,342	210,150	33,425	464,725	9,000	748,642	128
Jefferson	6,000		17,450	124,825	16,150	164,425	100
Juneau		235,000	204,000	1,215,300	24,500	1,678,800	189
Kenosha			6,600	83,500	15,000	105,100	33
Kewaunee			26,700	86,100		112,800	55
La Crosse			64,675	195,225	13,000	272,900	97
Lafayette			7,150	18,900		26,050	33
Langlade		15,000	30,700	265,400	35,400	346,500	110
Lincoln		20,000	34,825	516,825	1,500	573,150	141
Manitowoc	9,000		38,750	141,875	1,000	190,625	112
Marathon			192,100	724,075	23,000	939,175	236
Marinette		358,300	47,600	1,348,700	14,500	1,769,100	255
Marquette			39,350	1,373,250	6,000	1,418,600	242
Milwaukee			13,800	27,300	1,600	42,700	23
Monroe			75,675	640,000	10,000	725,675	176
Oconto		50,300	58,900	676,800	10,100	796,100	156
Oneida	193,800	25,000	20,700	1,079,759	200	1,319,459	126
Outagamie			19,300	160,500	2,200	182,000	80
Ozaukee			3,825	41,580	1,000	46,405	44
Pepin			10,000	69,150		79,150	42
Pierce			27,950	67,050	10,000	105,000	56
Polk		45,600	28,250	171,625		245,475	122
Portage			59,400	1,592,250	24,100	1,675,750	317
Price		25,500	34,650	223,500		283,650	100
Racine			4,875	35,975	2,000	42,850	40
Richland			48,550	87,050		135,600	59
Rock			24,800	103,195	1,750	129,745	77
Rusk		10,000	27,325	101,475	1,000	139,800	51
Sauk			69,400	619,475	46,000	734,875	169
Sawyer	38,360	35,000	10,000	342,300	30,750	456,410	94
Shawano			57,750	756,750	12,600	827,100	180
Sheboygan	69,500		20,000	200,050	15,350	304,900	112
St. Croix			22,000	360,755	500	383,255	178
Taylor		9,787	36,025	277,225		323,037	119

STATE NURSERY TREE DISTRIBUTION BY COUNTY—(Continued)

All Nurseries—State, County and Federal—Year of 1958

County	*State Forests*	*County Forests*	**Extension*	***Private*	†*General*	*Total*	*No. of Orders*
Trempealeau			59,300	490,900	500	550,700	138
Vernon			34,950	26,100	12,000	73,050	35
Vilas	88,770	75,000	10,700	240,075	3,000	417,545	87
Walworth			24,700	208,400	19,400	252,500	107
Washburn		56,700	14,100	375,345		446,145	102
Washington	29,500		18,550	116,100	2,475	166,625	75
Waukesha	110,500		12,800	297,700	2,250	423,250	136
Waupaca			59,750	1,198,100	34,050	1,291,900	300
Waushara			51,300	2,301,500	48,200	2,401,000	443
Winnebago			12,000	44,925	18,275	75,200	47
Wood		130,000	44,625	980,450	6,525	1,161,600	212
STATE OF							
Michigan				3,500	800	4,300	2
Oklahoma				500		500	1
Sub-Total	620,072	2,104,547	2,442,750	29,946,529	655,525	35,769,423	8,259
***Game Food						1,105,750	
GRAND TOTAL	620,072	2,104,547	2,442,750	29,946,529	655,525	36,875,173	8,259

*Extension—Stock distributed through the State Extension Forester, the State Club Leader, the Agricultural Instructors and the County Agricultural Agents. This column includes Community Forests.
**Private—Individuals purchasing under the Tree Application and Agreement form.
†General—Public hunting grounds, parks, clubs, institutions, highway plantings, etc.
***Game Foods—Deciduous shrubs and vines distributed from the Boscobel State Nursery.

STATE NURSERY TREE DISTRIBUTION BY SPECIES

All Nurseries—State, County and Federal—Year of 1958

Species	*State Forests*	*County Forests*	**Extension*	***Private*	***General*	*Totals*
Norway Pine	288,467	1,607,713	1,357,200	23,781,745	360,950	27,396,075
White Pine	149,935	192,600	385,575	2,372,915	90,475	3,191,500
Norway Spruce	32,225		88,275	603,680	21,075	745,255
White Spruce	23,475	118,934	417,850	1,831,139	79,400	2,470,798
Jack Pine	102,370	184,300	86,500	307,730	35,800	716,700
Balsam Fir	10,000		1,000	687,700	1,025	699,725
White Cedar	2,500	1,000	77,750	275,345	62,300	418,895
Black Locust			10,575	26,150	1,575	38,300
White Ash	100		17,025	52,025	1,725	70,875
Hard Maple	10,200		1,000	4,000	200	15,400
Black Spruce				3,000		3,000
Tamarack	800			1,100	1,000	2,900
Sub-Total	620,072	2,104,547	2,442,750	29,946,529	655,525	35,769,423
****Game Food						1,105,750
GRAND TOTAL	620,072	2,104,547	2,442,750	29,946,529	655,525	36,875,173

*Extension—Stock distributed through the State Extension Forester, the State Club Leader, the Agricultural Instructors and the County Agricultural Agents. This column includes Community Forests.
**Private—Individuals purchasing under the Tree Application and Agreement form.
***General—Public hunting grounds, parks, clubs, institutions, highway plantings, etc.
****Game Food—Deciduous shrubs and vines distributed from the Boscobel State Nursery.

Law Enforcement

The law enforcement division of the Conservation Department is charged with the enforcement of all conservation laws established by the Wisconsin Legislature and all the rules and regulations pertaining to the taking of fish and game and fur.

This division investigates every hunting accident, both fatal and nonfatal, and our conservation officers take what action is necessary in the enforcement of the law in this respect, and send in reports on these accidents to the Madison office where they are compiled and sent to a national organization, of which Wisconsin is a member, for a national report on hunting accidents.

The enforcement of rules and regulations relative to the use of toxic insecticides, which are adopted by the Conservation Department, the State Board of Health, and the State Department of Agriculture, is another responsibility of this division. In addition thereto we enforce the forestry laws and the state park laws that are established by both the Legislature and the Commission, which include timber trespass, burning permits, the illegal transportation of Christmas trees, and the illegal cutting of timber and Christmas trees, and the rules and regulations that are set up in the state parks both as they affect land matters and water safety regulations in these specific areas.

We also are the investigative arm of the Public Service Commission in regard to illegal use in the taking of water from streams and lakes, obstructions in the navigable waters of our state that are placed there illegally, and the inspection and creation of dams. Every drowning in the state is investigated by our officers and reports made to this office. We also wish to point out that we enforce laws pertaining to the reckless operation of boats on the waters of the state.

We enforce the pollution laws of the state and cooperate with the State Water Pollution Committee in making investigations for them relative to mining and private industries. We investigate whenever a bridge is being built over a stream or lake as to whether or not there are any conservation interests that may be impaired. This is done in cooperation with the Highway Commission of the State of Wisconsin.

Conservation officers act as the Department's agents in the holding of various public hearings throughout the state and we act as witnesses in all these cooperative measures where cases are being heard either as a public hearing or in court, whatever the action may be.

The law enforcement division has an educational program whereby we contact the student body in the schools of the state, pleading with the youth to abide by conservation laws as well as teaching them gun safety and boat safety. We have a planned program of education for the youth as we believe that if we can teach the teenagers to appreciate and abide by conservation laws, they will not only be better conservationists but better citizens as well. We make hundreds of appearances every year before civic organizations and conservation clubs, dispensing information and informing the public what the program of the Conservation Department is and also asking for the public's views

Conservation law enforcement is made more effective by technical assistance from the State Crime Laboratory, as for example on ballistics and evidence identification.

and recommendations for bettering the service.

We would also like to point out that this Department has an agreement with the State Crime Lab where they do our technical work for us and appear on the witness stand in cases which are contested in court, as expert witnesses. They assist us in the firearm ballistics program as well as identifying evidence for us. There is $6,000 set aside in the budget annually for this cooperative service and we feel that this money is very well spent and has considerable potential use in the future in employing modern techniques in the enforcement of conservation laws. The objective of this division is not to see how many arrests can be made in any given period of time, but to see how well we can obtain compliance through a friendly approach and the use of education as well as enforcement methods.

We believe that because of our philosophy in this regard, we have made great strides in earning the confidence of the public through this type of program, and without public acceptance, an enforcement agency cannot exist. There never has been a time when the cooperation from the district attorneys and the courts and elected officials has

been as cooperative and appreciative of the enforcement problems as there is today. The law enforcement division for many years has won more than 99 percent of the cases which have been processed through the courts. During this biennium, from July 1, 1956, through June 30, 1958, there were 9,758 game and fish cases processed through the courts. We also had seizures involving contraband from July 1, 1956, through June 30, 1958, totaling 5,420. We wish to point out that 90 percent of this fine money goes into the state school fund for educational purposes.

This division is equipped with two-way radios in each conservation officer's automobile and also pack-sets which are used when the wardens are on foot. They are also equipped with sleeping bags, sidearms, boats, motors, and boat trailers, and all of our men are clothed in uniforms.

We have 130 conservation officers in the division. This number includes two supervisors of commercial fishing law enforcement, and two engineers and two captains of the two patrol boats that we operate on Lake Michigan and Lake Superior where Wisconsin has jurisdiction in the enforcement of conservation laws. Also included in this number are the five area supervisors, five assistant area supervisors, one supervisor of the special investigation section, one administrative assistant who is in charge of the law enforcement training program as well as other administrative duties which are assigned to him from time to time, and the Assistant Chief Warden and Chief Warden.

The law enforcement division has been operating continuously for 81 years and we believe it to be one of the oldest conservation enforcement agencies in the nation. It is our contention that a prevention program is just as important, if not more so, than a program of apprehension. We have a new section which was inaugurated in the last biennium which we call the special investigation section, and that section concentrates on the apprehension of habitual and commercial violators as it pertains to game and fish and fur. The fish, game, and law enforcement divisions of the Conservation Department exist on the monies derived from the sale of licenses and if it were not for the conservation officers checking the hundreds of thousands of sportsmen in the field to see if they have the proper licenses, the revenues derived would not be anywhere near sufficient to carry on the program that we have outlined for ourselves.

This division cooperates with all other law enforcement agencies including the FBI and they in turn give us much cooperation each year so, in effect, we are helping one another to do the job of law enforcement at less cost to the state.

Engineering

The engineering division of the Conservation Department exists in accordance with the provisions of Sections 15.77(6) and 15.78 of Wisconsin Statutes. It was originally organized in the fall of 1950. Engineering work is carried out in accordance with four basic principles.

1. An engineering project approval system insures that a clear understanding of the engineering job is first worked out between the engineering division and the division being served and then that before any work is done the director and his staff have the opportunity to approve or reject the contemplated work.
2. A complete centralized engineering file is kept and a standard drawing system is followed. Thus engineering plans in connection with any design are readily rendered available for modification and reuse on subsequent similar designs wherever possible.
3. A cost accounting and record system is followed whereby all engineering labor and materials are charged to the particular project concerned and are billed back against the cost of the development requiring the engineering service.
4. The engineering division is so organized into groups of personnel working in specialized phases of engineering, and work assignments are so made that individual engineers progressively develop into specialists and continually improve themselves.

In addition to carrying out strictly engineering work, effective March 1, 1955, the rivers survey section which formerly operated directly under a departmental assistant director was transferred to the engineering division. This has meant that in addition to normal engineering work the division is charged with the determination of effects on relative conservation values of water level changes, highway relocations, water diversions, and other physical changes. The engineering division is also charged with coordinating these problems with the various divisions which may be affected. The rivers survey section is a part of the engineering division because a fundamental part of engineering involves water levels and water level controls, water table studies, and studies of soil conditions. These factors are basic considerations in carrying out rivers survey work.

As might be expected because the Conservation Department is a continually growing and developing organization, the work load imposed upon the engineering division has been continually increased. However, due to increased efficiency and by taking advantage of normal personnel turnover, the increased work load has been carried while actually reducing the number of engineering personnel from the number existing at the time of original organization. In consequence, even though salary rates have been substantially raised, the over-all engineering costs have been held to a minimum. Table I summarizes the situation in this connection on a fiscal-year basis. It will be noted that rivers survey annual total

The new bathhouse on the Devil's Lake south shore was among buildings designed by the department's engineers.

salary and expense accounts are listed separately in this table to keep such activities and their associated costs distinctly apart from engineering costs as originally tabulated before river survey became a part of engineering.

In Table I, under items Nos. 1 and 2, the engineering division's man power is shown in both man months and the total number of men at the end of each fiscal year. This is done because due to some variation in the number of engineering personnel throughout the year the number of man months shown better correlates with total salaries paid than does the total number of personnel at the end of the year. This same approach has been followed under items Nos. 11 and 12 for rivers survey personnel.

Because of the decrease in personnel, although the monthly average salary per man shown under item No. 4 is a steadily increasing quantity, it will be noted that item No. 3—the total annual salary expenditure—was a decreasing quantity to 1953–54 where it reached a minimum; from that time to the present, because of higher salary schedules and a fairly constant number of men, it has been a continually increasing quantity. By over-all coordination of travel, item No. 5—total annual expense account costs—has been held to a minimum and substantially reduced from original costs at the time of engineering organization. Item No. 6—capital investment costs—represents monies spent for office furniture, communications test equipment, and rivers survey hydrological test equipment. Item No. 7 is a new item set up in the table beginning with the fiscal year 1957–58. Prior to that year, consulting engineering costs have been only a few hundred dollars and were therefore included under item No. 8. Since consulting costs have represented a rising figure and have prospects of becoming greater in the future, it has been deemed prudent to list them separately. Item No. 8—all other engineering costs—in each case includes a payment of $5,000.00 to the U.S. Geological Survey for cooperative planimetric mapping. All expenses for prints, office supplies, and any and all costs that were neither salary, travel expense, or the purchase of capital equipment are included in item No. 8. It is felt that items Nos. 9 and 10 are self-explanatory. The same is true of items No. 11 to No. 16 inclusive.

Of the total expenditures shown in Table I, approximately 40 per cent of the funds were provided by the fixed budget of the engineering division; the remaining approximate 60 per cent of costs were billed back to divisions served, and charged against the particular project involved. For example, in the design and construction of a given building, all engineering costs for such building were paid for out of funds authorized for the particular structure. Then, on an accounting basis, engineering costs for the structure were reported as part of the costs of that structure.

All engineering administration, coordination within the department, and relations with other engineering agencies such as the State Bureau of Engineering, Industrial Commission, Board of Health, Federal Aid engineering office, etc., is taken care of through the chief conservation engineer. He also works with and assists engineering personnel in carrying out specific project assignments. The engineering division is organized into four basic engineering sections, each section headed by a section chief. Then, in addition, the river survey section is set up as an independent group and works through the topographic and hydrology section of the engineering division. The work carried out by each section is generally outlined as follows.

MECHANICAL SECTION

In order to carry on required activities, the department owns and operates approximately 575 trucks, together with numerous tractors, trailers, fire plows, pumpers, and many other mechanical devices. The efficient purchase, development, use, and in some cases manufacture of such equipment, poses many mechanical engineering problems which require solution, continuous observation, and study. These are carried on, and in addition, many heating and refrigeration problems arise which must be handled. The mechanical section is required to be on the alert to insure that the most up-to-date and proper equipment is used to obtain maximum efficiency in the various operations carried on by the department.

ELECTRICAL AND COMMUNICATIONS SECTION

To fulfill its responsibilities, especially with respect to fire fighting, the department owns, operates, and maintains approximately 2,000 miles of telephone lines, 20 switchboards, many telephone instruments, and associated telephone gear. To further extend this point-to-point communications net, the Conservation Department has cooperated with the Motor Vehicle Department in the construction by the latter agency of a rather extensive microwave communications system. Supplementing these point-to-point facilities, a land mobile radio service is operated to connect from the various field stations and fixed points to mobile field units. A total of approximately 375 units are operated in this connection. The resulting communications engineering demands, both from the standpoint of planning, operations, and maintenance, is therefore great. The electrical and communications section assumes this responsibility. In addition, they must make continued studies to insure that the department keeps up to date in this rapidly developing field. Also, they provide such electrical power and lighting engineering services as may be required.

STRUCTURAL SECTION

Throughout the department's several divisions, it owns and maintains approximately 1,450 buildings of varying sizes and located in all parts of the state. The structural engineering problems re-

At the Boscobel nursery, an administration building has been erected.

sulting from the standpoint of maintenance, disposal, and new construction are numerous. The structural section, in cooperation with the topographic and hydrology section, is also called upon to design dam structures for water impoundments required in connection with game and fish habitat developments and for recreational developments. Special structures, such as water control devices, fish hatchery raceways, and other structural design problems are encountered.

TOPOGRAPHIC AND HYDROLOGY SECTION

This section provides land surveys and topographic surveys. It carries on all departmental topographic and planimetric mapping, provides necessary geological services, and conducts hydrological studies. As a result of this work, engineering recommendations are made relative to water impoundments, water tables, runoff, and various water supplies. Since the establishment of Pittman–Robertson and Dingell–Johnson Federal Aid for development of fish and game habitat, the demands for surveying, mapping, and hydrological studies have greatly increased to where this section is called upon to do a great amount of engineering work. In addition, as previously indicated, this section is charged with the supervision and control of the rivers survey section.

Under Wisconsin Statute 84.28, funds are provided in the Highway Commission's appropriations for the construction, reconstruction, and improvement of highway facilities on state-owned lands. Projects established for such work on lands owned by the Conservation Department must receive the approval of both the Highway Commission and of the Conservation Commission. All engineering planning for such projects is done by the Highway Commission's Engineering Department. Liaison for such engineering and for coordination of the work within the Conservation Department is carried out by the topographic and hydrology section of engineering.

RIVERS SURVEY SECTION

This section, which operates through the topographic and hydrology section, is charged with four specific responsibilities.

1. Maintain an up-to-date inventory and record of Wisconsin's streams of all classes, listing such streams

TABLE I

COST SUMMARY AND COMPARISON WITH PAST YEARS

No.	Item	1951–52	1952–53	1953–54	1954–55	1955–56	1956–57	1957–58
1	Engineering Personnel (Man-Months)	178	175	147	149.2	144	146	156
2	Number of Personnel at End of Year	17	12	13	12	12	13	13
3	Total Annual Engineering Salaries	$ 61,027.08	$ 64,247.53	$ 58,891.27	$ 60,912.27	$ 61,124.00	$ 65,420.03	$ 77,523.00
4	Average Monthly Salary Per Man	342.84	367.13	400.62	408.26	424.47	448.08	496.94
5	Total Annual Expense Account	10,655.01	9,603.78	8,083.00	6,924.81	6,723.01	7,173.53	8,611.30
6	Capital Investment Costs	1,426.52	292.90	994.74	496.27	1,887.96	1,966.16	1,353.57
7	Consulting Engineering Costs (Includes Bur. of Engr.)							2,512.78
8	All Other Engineering Costs	13,441.91	10,368.15	9,838.13	9,917.99	11,315.60	15,051.06	10,987.41
9	Total Engineering Costs	86,550.52	84,512.36	76,812.40	77,755.07	81,050.57	89,610.78	100,988.06
10	Item (9) Less Items (6) + (7)	$ 85,124.00	$ 84,219.46	$ 75,817.66	$ 77,258.80	$ 79,162.61	$ 87,644.62	$ 97,121.71
11	River Survey (Man-Months)					12.5	24	24
12	River Survey Personnel at End of Year					2	2	2
13	River Survey Annual Salary	$	$	$	$	$ 4,969.17	$ 8,880.00	$ 10,337.00
14	River Survey Expense Accounts					1,836.08	2,576.00	2,851.72
15	Total River Survey Costs					6,805.24	11,456.00	13,188.72
16	Total Engineering Division Costs	$ 86,550.52	$ 84,512.36	$ 76,812.40	$ 77,755.07	$ 87,855.82	$101,066.78	$114,176.78

on a priority basis for desired maintenance in a natural state as determined from a conservation viewpoint.

2. Investigate, study, and make recommendations relating to all proposals for changes in water levels in lakes and impoundments within the State of Wisconsin, evaluating such changes in terms of the affects on conservation values from fish, game, and forestry standpoints.
3. Investigate and make recommendations relating to any affects on conservation values caused by highway relocations, reconstructions, or new construction projects.
4. Take such action as may be required to protect conservation interests in connection with the diversion of water from streams for agricultural irrigation purposes.

Recommendations in connection with all four of the categories of work listed must be arrived at not only through individual investigation and study, but also through cooperative efforts involving the various other departmental divisions which may be interested.

Records show that all of the above sections of engineering, exclusive of the rivers survey section, between July 1, 1956 and June 30, 1958 have handled approximately 190 separate specific assignments. Some of these assignments have been minor tasks requiring only a few hours while others have been major tasks calling for hundreds of hours of work spread over many months. Most of these assignments have been completed, but some are continuing and in the process of completion. Also a considerable number of long-range projects are still in process which were actually begun prior to the biennium here being reported.

Information and Education

The information and education division is organized into three sections: information, education, and recreational publicity.

Each of these sections made substantial progress during the 1956–1958 biennium, as is clear from their reports which follow.

A highlight of the biennium was service of this division as "host" for the national convention of the American Association for Conservation Information at Eagle River May 25–28, 1958. One member of the Wisconsin information and education division was chairman of the program committee. Another served as secretary–treasurer of the organization in 1957–1958, and was elected first vice president for 1958–1959.

RECREATIONAL PUBLICITY

The Recreational Publicity Section completed its twenty-third year of continuous operation during the biennium. This office established by State Statute has for its primary purpose the attraction of tourists from outside of Wisconsin to our state. It is financed by an annual appropriation of $253,100.

As in previous years the concerted efforts of the section stressed the theme "Vacation Fun for the Whole Family". As part of the family fun, such features as fishing, boating, swimming, the lakes and streams, scenic and historic attractions, autumn color tours, winter sports and tourist accomodations have been stressed in the publicity.

In order to provide the most suitable placement of advertising, careful surveys were made of the various media available for publicizing the state. It was determined that the most profitable media in which to place advertising were the national magazines and the midwest newspapers. The advertisements all carried coupons which the reader could clip and mail to the Madison office requesting vacation information. Frequent news releases of recreational activities, magazine articles, motion pictures, photographic releases, and exhibits in out-of-state vacation and travel shows in states throughout the middle west were other means utilized by the section to promote interest in Wisconsin vacations.

Inquiries received in response to this diversified advertising program reached new high totals during the biennium. The total number of inquiries for the fiscal year 1955–56 was 139,732. In fiscal 1956–57 this total had risen to 149,294 and by June 30, 1958, 167,368 inquiries had been received for fiscal year 1957–58.

A remarkable growth in the Official Wisconsin Vacation Center located at 205 North Michigan Avenue, in Chicago was also noted during this period. This office was opened in the fall of 1956. During the first year of its operation, the office had 11,307 contacts with potential vacationers in the Chicagoland area. During the fiscal year 1957–58 this number had grown more than three-fold to an amazing 36,889 contacts. Most of the advertising in the Chicagoland area has been directed to the Official Wisconsin Vacation Center and the good

results have indicated the advisability of this effort.

All inquiries received in both the Madison office and in the Wisconsin Center in Chicago are processed promptly with regional literature, maps, the vacation guide and other appropriate literature which might be requested by the inquirer.

The use of TV time was adopted during the biennium over two of the major Chicago stations. The results were highly satisfactory and more than 5,000 inquiries were received from each of the CBS and NBC stations which were utilized.

During the biennium a Temporary Recreational Industry Advisory Committee was appointed by the Commission. This committee met on six occasions and devoted its efforts primarily to ways and means of improving the operation of the Recreational Publicity office and to possible programs for improving the tourist industry in the state. Representatives of the Wisconsin Resort Association, the Wisconsin Hotel Association, the Wisconsin Motel Association, the Wisconsin Restaurant Association, the Wisconsin Division of the American Automobile Association, the Wisconsin State Chamber of Commerce and the Wisconsin Council of Agricultural Cooperatives were represented on the committee.

With greater activity in the winter sports field in the state, increased efforts were devoted to publicizing and advertising the facilities offered to winter sports enthusiasts throughout the state. A larger share of the advertising budget was devoted to advertising these facilities and an increased number of news releases were distributed to the midwestern newspapers.

Close and friendly cooperative contacts were maintained with travel editors and outdoor editors, motor clubs, travel agents, travel feature writers, radio outdoor sports commentators, railroads, bus lines, air lines, steamship and auto ferries. In brief, all ethical means were successfully and economically employed in conducting Wisconsin's recreational promotion program.

EDUCATION

SCHOOL SERVICES

The activities of the school services section are many and varied. Many of these include the coordination and cooperation of the field divisions to complete; for example, the Conservation Day Program that is conducted in school systems throughout the state.

A typical Conservation Day Program works like this: a team of technicians and specialists, consisting of a forester, fishery biologist, game manager, forest ranger, and a law enforcement officer, visits a high school with the entire school day given over to the theme of conservation. Each member of the team presents a talk, usually illustrated, on his particular phase of conservation activity. These high school visits are not intended to supplant a conservation curriculum in the school, but are intended to supplement work the school is conducting by bringing to the students' attention various conservation problems and their solutions.

A phase also includes information on the educational requirements, the position qualification and general statements on civil or state service careers.

Another function of the school service program is to render assistance to school faculties on the grade, high school; and college level. This assistance is provided by an educational consultant, who is an I & E staff member. Provided in cooperation with the Department of

Here is work-and-learn conservation education. High-school students gain credits, knowledge and experience, while a stream gets needed improvement.

Public Instruction, this service includes suggestions on teaching aids and curriculum revisions, improvement of school libraries from a conservation standpoint, and dissemination of information regarding improvement of reading material, visual aids, text books, and the preparation of bibliographies.

A summer college program is also carried on for a class of 15 men entering their senior year who plan to teach or enter some phase of conservation work. These students study conservation and take part in state park improvement programs and other practical conservation projects.

A summer program for high school boys is also conducted which entails practical work projects in the field. One example of this is stream improvement work.

Gun safety clinics are sponsored in schools throughout the state in cooperation with the Department of Public Instruction, ammunition manufacturers, and the National Rifle Association. The purpose of the clinics is to prepare teachers for the instruction and guidance of youth in the prevention of needless mishaps and greater knowledge and skills relating to the proper care and use of firearms.

The school services section provides a "section for teachers" and educators in the Wisconsin Conservation Bulletin in techniques, and aids and materials that implement teaching of conservation.

Other duties include the handling of requests for general conservation information, school conservation materials and aid in promoting the school camping, outdoor nature areas and school forests. Scouting activities, state 4–H work, Future Farmers and conservation clubs also receive attention and aid in conservation education through the school services section.

Affiliation with state and national education agencies include the Wisconsin Education Association, the State Conservation Curriculum Committee, Midwest Conservation Education Conference, Conservation Education Association. A representative from the I & E Division on the Educational Advisory Council for the "Trees for Tomorrow Camp" helps coordinate the conservation education program offered by this camp.

CLUBS

During the past biennium, an extensive survey was made of conservation organizations, which resulted in an analysis of the activities of conservation organizations in all phases of resource management. Many inactive and defunct organizations were encouraged to participate in projects and programs, and at the present time, the revised list of conservation organizations are active in many worthwhile projects, such as habitat improvement for fish and game, watershed associations, and other related conservation projects.

The adult conservation clubs and other allied organizations were offered the services of the Department personnel for the purpose of providing talks and motion picture showings which were primarily concerned with conservation activities of this Department.

Cooperating with the Trees for Tomorrow, Inc., Conservation Camp through the Education and Public Relations Committee of the Executive Council of the Conservation Congress, leadership conferences have been held to provide ideas and suggestions to club officers on how to make their organizations more effective in resource management.

Through the Education and Public Relations Committee of the Congress, the awards program, which cites an outstanding conservation club in each of the five conservation areas of the state for their contributions to the management of our wildlife, soil, and water resources, was continued.

A member of the Education Section serves as liaison between the Conservation Department and the Conservation Congress.

WISCONSIN CONSERVATION CONGRESS

The Wisconsin Conservation Congress, during the last biennium, acting as an advisory body to the Wisconsin Conservation Commission, continued its effective role providing recommendations and suggestions to the Commission in regard to fishing, hunting and trapping regulations.

The Congress consists of three regular delegates and two alternates who are elected at public hearings held in each of the 71 counties of the state in May of each year.

The Executive Council, implementing its activities, recommended continuation of the several study committees for the purpose of advising the Council on recommendations to the Wisconsin Conservation Commission. The following study groups were continued: Big Game, Waterfowl, Trout, Fish, Upland Game, Fur, and Education and Public Relations. In addition, two members of the Congress were appointed as members of the Commercial Fisheries Advisory Committee. A special committee on water was appointed to consider this vital matter because of the ramifications of water usage and its relationship to wildlife and its management.

The Executive Council, following established procedure, held four meetings during each year and each study committee met at least three times during each year. The staggered terms of the election of county Congressmen was proven most satisfactory and was continued.

Under the new rule making procedure established by the Legislature, the Congress was able to more effectively debate the merits of recommendations made by the Wisconsin Conservation Commission, and it was generally felt that this procedure has been most helpful and effective in establishing regulations based upon research and sound management.

At the state-wide meeting of the Congress on June 14, 1958, Executive Councilors were elected, and they, in turn, elected Mr. Edward J. Morse, Jr.,

Grant County, Chairman, Mr. Glen L. Garlock, Forest County, Vice-Chairman, and Mr. John M. Hammer, Dunn County, Secretary–Treasurer.

RADIO–TELEVISION

The Information and Education Division launched a full-time radio and television program effort in 1956 with the employment of an additional staff man to conduct a program aimed at taking fullest possible advantage of the radio and television media.

Major efforts in the television phase of this program are devoted to the production of short sound on film clips for distribution to TV stations throughout the state.

TV coverage also has been obtained through production of 14-minute programs filmed via kinescope through facilities of the state television station at the University of Wisconsin.

The TV film clips are filmed entirely with department personnel and equipment. The productions are accomplished through "double system" recording in which both the sound and the picture are captured simultaneously.

The clips are produced right on the spot at the scene of the activity under discussion, thus making it possible to capture synchronized background sound effects and conversation, as well as "off-screen" narration.

Multiple prints of the clips, which run from one minute to three minutes in length, are obtained from a processing laboratory, and a print of each clip is sent to each participating station. Twenty individual TV stations currently are being serviced with this film clip service. The stations include all those in Wisconsin, plus a few stations in cities of neighboring states which border the Wisconsin boundaries.

The clips are well received by the stations and the viewing audience. Stations have given the clips top time spots, and in many cases have run the same film clip several times in different time spots.

Both radio and television activities include a presentation of periodic special programs which are conducted live through facilities of local stations. These usually are planned to meet a specific need in cases where an item of special interest needs additional attention primarily on a local basis.

Additional services include aid to radio and television stations that require help in planning outdoor programs of their own.

Radio programming activities of the department consist primarily of a year-round series of weekly feature programs which are tape-recorded for distribution to stations throughout the state.

Titled "Wisconsin Outdoors", the series consists of 14-minute programs in which an I & E staff member interviews authorities on various conservation subjects. To help achieve "listener appeal", most of the programs incorporate background sound effects appropriate to the subject of discussion. Sounds used have included those of grouse booming, birds calling, rattlesnakes buzzing, sawmills, outboard motors, and many others. Most programs in the series are on-the-spot productions made at the scene of the activity under discussion.

Multiple copies of each tape-recorded program are reproduced through the facilities of the state radio station at the University of Wisconsin, and the copies are mailed to participating stations. Currently, 36 commercial stations, plus the 10 station state radio network, air the program each week.

A survey of the stations carrying the "Wisconsin Outdoors" programs has revealed that the weekly listening audience numbers approximately one million persons.

VISUAL AIDS

The production of two new color sound films were completed. FISHIN' FUN IN WISCONSIN, a recreational publicity film, was completed and had its premier showing in January of 1957. FARMING THE WOODLANDS, a forest management division film, was completed and had its premier showing in September of 1957.

Filming of two new films was begun during the biennium. One is a film for the fish management division and the other is a sound color film for the forest protection division.

In 1957 our game research film, RED 14, won a national award at the American Association for Conservation Information meeting in Biloxi, Mississippi. Again in 1958 our film, FARMING THE WOODLANDS, received a national award at the AACI meeting in Eagle River, Wisconsin.

In addition several films were made for the watershed management division of an "in-training" nature. Films on APPROVED CATTLE-CROSSING METHODS, APPROVED SHEET-PILING DEFLECTOR CONSTRUCTION METHODS and APPROVED FENCE CONSTRUCTION METHODS were made and copies distributed to each state conservation area headquarters. A documentary film for the forest management division was also made of the JACK PINE BUDWORM spraying in northwestern Wisconsin in the early summer of 1957. In October of 1957 a request from the U. S. Information Agency for a "Voice of America" film was complied with and a film showing the teaching of conservation in schools and in the field was made in Marathon County. This film has received international distribution since that time. A television type film was made in Jackson County of illegally killed deer during the 1956 deer season.

In addition to motion picture production, black and white and colored stills are continuously being produced by our own personnel and field personnel. All film is sent to this office for processing and screening in order to add to our general public file which contains over 15,000 black and white, 4,000 color 2″ x 2″ and several hundred larger color transparencies.

Newspapers, magazines and other publications used 5,750 black and white and color photographs during this biennium. Processing of black and white and color photographs totaled 9,817. Prints and enlargements made during this period totaled 26,029. The film library distributes 114 film subjects, mostly color sound, 24 2″ x 2″ slide sets in color, 17 display sets made up of photographs mounted on 16″ x 20″ mounts. These are available free of charge upon request to schools, organizations, church groups, etc.

During the biennium there were 6,869 film shipments sent; in these 8,739 films were enclosed. The films were shown to 822,513 people. Slide shipments were 414 and display shipments 272.

Department personnel received 882 shipments for their programs. TV stations throughout the United States have used many of our films. Approximately 85% of the films are used by Wisconsin schools.

The Milwaukee Museum is supplied copies of Conservation Department films and report 1,519 shipments of our films that were shown to 93,088 people in Milwaukee.

EXHIBITS

The conservation exhibit programs for 1957 and 1958 included the Wisconsin State Fair, the Farm Progress Days event, various district and county fairs, sport shows and municipal celebrations.

Within the confines of the four acre conservation exhibit at the Wisconsin

State Fair were displays representing all divisions of the Conservation Department —game, fish, parks and forests, forest protection, forest management and law enforcement—presenting a comprehensive picture of conservation in Wisconsin. Highlighting the big conservation show were two logging camp style structures, containing in one, live fish, reptiles and amphibian displays and in the other building an information and literature display booth and many interesting educational exhibits. Game pens around the grounds displayed many animals and game birds. Feature attractions were the larger pens showing Wisconsin deer, black bear cubs, waterfowl, eagle, wildcat and beaver village. A model state park was shown with picturesque waterfall, fishing stream, forest protection, fire tower, shelter house, picnic tables and fireplaces and a typical camping tent and family vacation setting. A new and larger forest area for the 1958 fair included an 80 foot forestry display building, operating charcoal kiln, portable sawmill demonstration, plus many other new forest management educational features.

The conservation exhibit effort at the Mauston two day Farm Progress Days event included the wildlife set and educational panels display filling a 120 x 40 tent plus 160′ outside space.

The 1958 Farm Progress Days at Yellowstone Lake highlighted conservation and approximately 140,000 farmers, sportsmen and interested persons viewed the many educational panels and the reptile display in the 40′ x 120′ tent in the exhibit area plus a live fish and wild animal and bird exhibit at the conservation dike location. The game and forest management divisions very effectively demonstrated along one of the main wagon train routes, forestry plantations, timber stand improvement, watershed test plots, forest harvest cutting, strip cropping, dwarf corn, game cover plantings and a portable sawmill operation.

The educational panel exhibits which included dioramas, color translites and animated displays were shown in 22 state locations in 1957, with 24 wildlife and fish exhibits and four out-of-state advertising booths for this same year. 1958 was a record year with 67 exhibit appearances—41 educational panel displays, 20 wildlife set ups and six out-of-state advertising shows.

INFORMATION

NEWS SERVICES

The news service section of the department produced about 400 pages of news releases in each of the past two years and this material went weekly to some 700 news outlets, newspapers, writers, radio and television stations. Newspaper usage alone amounted to hundreds of thousands of column inches each year.

The section is in daily contact with the press and furnishes special requested information relative to all conservation fields and is in daily contact with fish, game and forestry problems.

With the cooperation of conservation wardens, the section continued the popular "How's Fishing?" reports over the last two years, issued weekly from the middle of May until after Labor Day. In addition to its great press usage, this service is the basis for many radio programs.

During the biennium the section produced and issued an illustrated feature service to 120 state newspapers that requested this service. A total of 67 of the features were furnished on mats and their usage amounted to nearly 10,000 column inches of newspaper space. The material was designed for a duplicate

use in a booklet on the single cost of drawings and cuts. A total of 54 of the cuts were used in producing a booklet, "Wisconsin's Way of the Outdoors", at a minimum cost for 35,000 copies.

Part of the section's function is coverage of commission meetings and writing about its proceedings for various purposes.

As a necessary part of its functions, the section reviewed an immense amount of literature and reports during each of the last two years.

PUBLICATIONS

Wisconsin Conservation Bulletin

The Wisconsin Conservation Bulletin is a monthly publication with 32 to 40 pages in 6 x 9 size, printed in black and white only. It is designed to convey significant conservation information to schools and the interested public at relatively low cost.

Bulletin circulation increased from about 71,900 to 77,600 during the biennium, despite the fact that 8,000 names were dropped in a mailing list revision in May, 1957. About 12,000 copies monthly were supplied to schools for nine months of each school year.

Improvement has been achieved in the balance of subject matter presented. In particular, forest management now is covered more thoroughly than at any previous time. Another recent development has been use of art work, particularly on the cover, depicting game and fish species in their natural habitats.

Activities Progress Report

The Activities Progress Report continued to be issued monthly to a mailing list of about 4,000. It carried reports of Conservation Commission meetings, area field reports, and statistical material of state-wide significance.

Plans were underway to replace the

About 12,000 copies of the Wisconsin Conservation Bulletin are supplied to schools of this state each month during the school year.

Activities Progress Report with an improved publication named the Conservationist. This is to be in the nature of a house organ designed to supply Conservation Department personnel with information needed to perform their jobs better.

Like the Activities Progress Report, the Conservationist is to be mailed to Conservation Department personnel, to various public officials, and to individuals who carry responsibilities for advancing specific conservation programs in Wisconsin. Although not available for general distribution, the publication is to be supplied to libraries and to information media such as newspapers, radio stations and television stations.

Technical Reports

Technical reports on game research have been published in a Technical Bulletin series since 1950. This series has now been expanded to include fisheries and forestry research papers, as well as game. During the biennium the first fishery bulletin was published as Technical Bulletin Number 17: "The Pond Culture of Muskellunge in Wisconsin." Plans are under way to begin the preparation of the first forestry bulletin.

These reports are written by the research technicians, and edited and prepared for publication by the Research Editor, a position created in the Information and Education Division in 1958.

Efforts are made to distribute these reports to technical audiences which will benefit the most from the techniques and results presented, and to select groups interested in a special subject. The information is also presented through various media, including special leaflets, in popular fashion, enabling the department to bring to the public readable information about research and management activities in a style which is readily comprehensible.

Other Publications

Digests of hunting, fishing and trapping regulations were published in the following numbers in 1957: general hunting, 750,000 copies; deer hunting, 450,000; waterfowl, 250,000; trapping, 40,000; fishing, 1,600,000. The larger folders, for general hunting and fishing, cost about one cent each.

New publications included the Twenty-fifth Biennial Report of the Wisconsin Conservation Commission, Tree Planting in Wisconsin, Notes on Wisconsin Conservation, Trapping Turtles, and the first in a series on the life history, ecology and management of various species of fish. Also, 53 articles from the Wisconsin Conservation Bulletin were reprinted as separates.

Various publications were reprinted as stocks were exhausted, including the popular Wisconsin Game Fish, Wisconsin Lakes, Wisconsin Trout Streams, Wisconsin Wildlife and Wisconsin Mammals.

Clerical

Clerical division employes assigned to the stenographic, typing, mail and supply and filing sections, provide clerical services to the personnel of all divisions of the department. Clerical personnel are located in five offices in Madison and in 23 cities throughout the state as follows: Antigo, Black River Falls, Boscobel, Boulder Junction, Campbellsport, Grantsburg, Green Bay, Hayward, Horicon, Ladysmith, Marinette, Mercer, Oshkosh, Park Falls, Poynette, Rhinelander, Spooner, Tomahawk, Wausau, Wausaukee, Wautoma, Wisconsin Rapids and Woodruff.

The constant expansion of the programs of the operating divisions of the department has increased the workload of the clerical division. To enable the clerical force to keep abreast of the increasing workload, dictaphones were purchased for the area offices and for the special investigators of the law enforcement division. Additional units were also installed in the Madison offices, making an over-all total of 21 dictating and 14 transcribing units in use in the department.

An additional photocopy machine and a postage meter machine were purchased for use in the Madison office because of the increased workload. A Western Union Desk–Fax was also installed in the Madison office. Other types of office machines used to handle the heavy volume of clerical needs include a mimeograph, ditto, addressograph and folding machine, all electrically operated.

To effect better communication between the Madison offices and various field offices, a microwave system was installed in 1957. This furnishes Madison with a direct line to the Tomahawk headquarters and from there to various field headquarters in the northern and western portions of the state. To date the eastern offices are not included, but it is anticipated that they will be as soon as additional facilities become available.

A considerable amount of inactive filing material was removed from the file storage room and combined with materials of other departments in the vaults of the Central Record Storage Department, which was created by the 1957 Legislature. This made more space available to the mail and supply section for the storage of the large quantities of pamphlets and supplies which are needed for distribution to the public and to department personnel.

Finance

The finance division is composed of the Comptroller's office and five sections —accounting, license sales, field business management, cashiering, and purchasing and property.

The Comptroller is responsible for preparing the department's biennial budget and the over-all financial and accounting work in the department.

The accounting section handles the accounting activities, both general and cost, I.B.M. accounting and statistical reporting and internal auditing.

License sales includes the purchase, distribution and sale of all departmental licenses and tags, including hunting, fishing, and trapping, all regulation pamphlets relating to hunting, fishing and trapping seasons, the maintenance of necessary accounting records, and the collection of accounts receivable connected with license business. This section also handles the processing and issuance of permits and special licenses, the recording of lease agreements and performance thereon, the handling of arrest and seizure records, collection of warden fees and the sale of confiscations.

Field business management is responsible for business management affairs at the area level. During the present biennium only three of the five area headquarters have been staffed with a business manager. The plans call for staffing the other two areas during the 1959-1961 biennium.

The cashier is responsible for maintaining a comprehensive control over all receipts, including the proper classification of receipts and the preparation of deposits.

The purchasing and property section of the division maintains the department's inventory and property records, handles all insurance matters for the department and provides for the centralized purchasing of all departmental materials and supplies.

FINANCIAL REPORT 1956–1957

CONSERVATION FUND

Exhibit A

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE OVER-ALL CONSERVATION FUND FOR THE FISCAL YEAR 1956–1957

Appropriation	*Balance Forwarded From 1955–1956*	*Plus Revenue 1956–1957*	*Minus Disbursements 1956–1957*	*Plus Transfers 1956–1957*	*Minus Transfers 1956–1957*	*Cash Balance Forwarded To 1957–1958*	*Minus Unliquidated Encumbrances*	*Unencumbered Balance Available for 1957–1958*
Fish, Game and Parks	$ 901,172.09	$ 4,926,757.61		(a) $346,864.08	(g) $4,673,153.53			
				(b) 400,662.63	(h) 9,500.00			
				(c) 11,133.86	(i) 39,318.08			
				(d) 20,435.52	(j) 6,000.00			
				(e) 8,730.26	(k) 236,937.64			
				(f) 1,713.82	(l) 252,851.00			
					(m) 40,000.00			
					(n) 453,013.90			
					(o) 14,595.63			
					(p) 44,696.25	$ 847,403.84	$	$ 847,403.84
Imprest Fund Advance	5,000.00					5,000.00		5,000.00
Fish and Game Operations	400,662.63		4,432,763.54	(g) 4,673,153.53	(b) 400,662.63	(x) 240,389.99	14,753.61	225,636.38
Conserving Wildlife	—0—		9,500.00	(h) 9,500.00		—0—		—0—
Water Pollution Committee	—0—		39,318.08	(i) 39,318.08		—0—		—0—
Water Regulatory Board	—0—		6,000.00	(j) 6,000.00		—0—		—0—
Retirement, etc.—Fish and Game	—0—		236,937.64	(k) 236,937.64		—0—		—0—
Recreational Advertising	11,133.86		247,044.93	(l) 252,851.00	(c) 11,133.86	(x) 5,806.07	902.11	4,903.96
Bear and Deer Damage	20,435.52		34,397.37	(m) 40,000.00	(d) 20,435.52	(x) 5,602.63		5,602.63
State Parks	8,730.26		445,369.89	(n) 453,013.90	(e) 8,730.26	(x) 7,644.01	1,258.01	6,386.00
School Tax on State Hunting Grounds	—0—		14,595.63	(o) 14,595.63		—0—		—0—
Bounties—Fox	—0—		44,696.25	(p) 44,696.25		—0—		—0—
Forestry	1,203,062.46	3,553,299.64		(q) 381,505.75	(s) 3,398,520.43			
				(r) 596,309.36	(v) 216,575.09			
					(w) 196,343.47			
					(u) 120,490.42			
					(t) 240,980.83	1,561,266.97		1,561,266.97
Forestry Operations	596,309.36		3,067,857.41	(s) 3,398,520.43	(r) 596,309.36	(y) 330,663.02	11,412.11	319,250.91
So. Wis. Forests	183,805.16		220,439.34	(t) 240,980.83		204,346.65	383.00	204,346.65
Kettle Moraine Land	31,119.27		146,898.30	(u) 120,490.42		4,711.39	4,000.00	711.39
County Forest Aid	—0—		216,575.09	(v) 216,575.09		—0—		—0—
Retirement, etc.—Forestry	—0—		196,343.47	(w) 196,343.47		—0—		—0—
Forestry Reserve	300,000.00					300,000.00		300,000.00
Public Htg. and Fishing Sportsmen's Licenses	189,175.68	125,336.85	160,075.56	(a) 28,108.41		182,545.38	47,716.99	134,828.39
Federal Aid—Clarke McNary	—0—	381,505.75			(q) 381,505.75	—0—		—0—
Federal Aid—Soil Bank	—0—	450,687.00	267,534.27			183,152.73	123,395.14	59,757.59
Federal Aid—Pittman-Robertson and Dingell-Johnson	—0—	374,972.49			(a) 374,972.49	—0—		—0—
Cancelled Drafts	4,524.58	273.51	768.61		(f) 1,713.82	(z) 2,315.66		2,315.66
Insurance Loss	10,121.97	5,942.34	5,549.20			10,515.11		10,515.11
TOTAL CONSERVATION FUND	$3,865,252.84	$ 9,818,775.19	$ 9,792,664.58	$ 11,256,478.30	$ 11,742,519.96	$ 3,891,363.45	$ 203,820.97	$3,687,542.48

See following page for footnotes.

CONSERVATION FUND

Schedule A-1

Footnotes Explaining Exhibit A

(a) $ 346,864.08 and $28,108.41 transferred to Fish, Game & Parks and Public Hunting & Fishing Grounds, Sportsmen's Licenses respectively from Federal Aid—Pittman-Robertson and Dingell-Johnson.
(b) $ 400,662.63 is prior year Fish & Game Operations balance which reverts to Fish, Game & Parks Appropriation.
(c) $ 11,133.86 is prior year Recreational Advertising balance which reverts to Fish, Game & Parks Appropriation.
(d) $ 20,435.52 is prior year Bear & Deer Damage balance which reverts to Fish, Game & Parks Appropriation.
(e) $ 8,730.26 is prior year State Parks balance which reverts to Fish, Game & Parks Appropriation.
(f) $ 1,713.82 consists of cancelled drafts over six years old which revert to Fish, Game & Parks Appropriation.
(g) $4,673,153.53 transferred from Fish, Game & Parks to Fish & Game Operations as 1956-57 Appropriation.
(h) $ 9,500.00 transferred from Fish, Game & Parks to Conserving Wildlife as 1956-57 Appropriation.
(i) $ 39,318.08 transferred from Fish, Game & Parks to Water Pollution Costs as 1956-57 Appropriation.
(j) $ 6,000.00 transferred from Fish, Game & Parks to Water Regulatory Board as 1956-57 Appropriation.
(k) $ 236,937.64 transferred from Fish, Game & Parks to Retirement Contributions Fish & Game as 1956-57 sum sufficient Appropriation.
(l) $ 252,851.00 transferred from Fish, Game & Parks to Recreational Advertising as 1956-57 Appropriation.
(m) $ 40,000.00 transferred from Fish, Game & Parks to Bear & Deer Damage as 1956-57 Appropriation.
(n) $ 453,013.90 transferred from Fish, Game & Parks to State Parks as 1956-57 Appropriation.
(o) $ 14,595.63 transferred from Fish, Game & Parks to School Tax on State Hunting Grounds as 1956-57 sum sufficient Appropriation.
(p) $ 44,696.25 transferred from Fish, Game & Parks to Bounties—Fox to cover payment of ½ of the 1956-57 fox bounties.
(q) $ 381,505.75 transferred to Forestry from Federal Aid—Clarke-McNary.
(r) $ 596,309.36 is prior year Forestry Operations balance which reverts to Forestry Appropriation.
(s) $3,398,520.43 transferred from Forestry to Forestry Operations as 1956-57 Appropriation.
(t) $ 240,980.83 transferred from Forestry to So. Wis. Forests as 1956-57 Appropriation.
(u) $ 120,490.42 transferred from Forestry to Kettle Moraine Land as 1956-57 Appropriation.
(v) $ 216,575.09 transferred from Forestry to County Forest Aid as 1956-57 sum sufficient Appropriation.
(w) $ 196,343.47 transferred from Forestry to Retirement Contributions—Forestry as 1956-57 sum sufficient Appropriation.
(x) Balances revert to Fish, Game & Parks Appropriation.
(y) Balance reverts to Forestry Appropriation.
(z) Items over six years old totalling $737.86 will revert to Fish, Game & Parks Appropriation.

Revenue

	Net Revenue 1956–1957
FISH, GAME AND PARKS	
Fishing Licenses	
Fish Shipping Coupons	$ 352.60
Nonresident Combination 15 Day Fishing Licenses	312,912.25
Nonresident Fishing Licenses	1,163,565.40
Resident Fishing Licenses	670,722.80
Great Lakes Commercial Fishing Licenses	10,544.50
Bait Dealers' Licenses	6,265.00
Mississippi River Commercial Licenses and Tags	4,906.25
Private Fish Hatchery Licenses	2,530.00
Slat Net Licenses and Tags	1,464.25
Wholesale Fish Dealer Licenses	4,825.00
Trammel Net Licenses	360.00
Bank Pole Fishing Licenses	1,102.95
Cisco Licenses	403.00
Set Line Licenses and Tags	3,683.75
Sturgeon Tags	9,062.00
Bait Net Licenses	10.00
Game Licenses	
Resident Hunting Licenses—Small Game	684,484.00
Resident Hunting Licenses—Big Game	550,527.40
Nonresident Hunting Licenses—Small Game	59,274.75
Nonresident Hunting Licenses—Big Game	93,068.50
Nonresident Hunting Licenses—Archers	30,074.20
Nonresident Shooting Preserve Hunting Licenses	3,956.50
Shooting Preserve Licenses and Tags	897.80
Settlers' Hunting Licenses—Small Game	818.00
Settlers' Hunting Licenses—Big Game	872.50
Trapping Licenses	10,493.76
Trap Tags	41,415.81
Beaver Trapping Licenses and Tags	11,710.50
Deer Farm Licenses	2,275.00
Dead and Live Deer Tags	598.90
Resident Fur Dealer Licenses	2,890.00
Itinerant Fur Buyer	600.00
Game Farm Licenses and Tags	2,546.24
Muskrat Farm Licenses and Tags	6,683.29
Beaver Farm Licenses and Tags	183.79
Otter, Raccoon, Mink and Skunk Farm Licenses and Tags	1,211.10
Raccoon Tags	10,933.17
Voluntary Sportsmen's Licenses	213,914.50
Other Licenses	
Christmas Tree Dealer Licenses and Tags	7,029.37
Duplicate Licenses	2,094.00
Guide Licenses	987.00
Scientific Certificates	46.00
Taxidermist Licenses	500.00
Miscellaneous	
Campsite Fees	7.00
Warden and Witness Fees	5,201.98
Rent and Rentals	18,381.06
Employee Rents and Accommodation Services	13,563.50
Activity Services	1,403.31
Supervision and Inspection Services	752.72
Sale of Resources	54,986.92
Sale of Confiscations and Seizures	35,563.15
Sale of Produced or Processed Items	5,441.84
Sale of Equipment	428.25
Sale of Supplies	2,219.29
Sale of Buildings and Structures	1,156.00
Sale of Signs	421.95
Sale of Salvage and Scrap	2,202.66
Sale of Rough Fish	164,640.73
Commission on Sale of Rough Fish	5,208.70
Sale of Other Items	7.50
Gifts and Donations	148.38
Other Revenue	4,951.01
Investment Income	121,446.19
Transfer from Other Funds	
Highway Commission Contribution—Recreational Advertising	150,000.00
General Fund Contribution—Recreational Advertising	103,100.00
General Fund Contribution—State Parks	$ 150,000.00

Revenue

	Net Revenue 1956–1957
C.W.C.A.—Meadow Valley Receipts	
Sale of Resources	$ 35,282.48
State Parks Receipts	
Campsite Fees	43,691.15
Golf Fees	19,303.50
Rent and Rentals	36,644.51
Employee Rents and Accommodation Services	3,741.00
Convenience Services	4,115.50
State Roads	6,528.29
Sale of Resources	315.00
Sale of Produced or Processed Items	62.00
Sale of Buildings and Structures	1,248.50
Sale of Salvage and Scrap	1,380.12
Other Revenue	417.59
TOTAL FISH, GAME AND PARKS	$4,926,757.61
FORESTRY	
Fire Suppression—Tax Levy	$ 327.17
Campsite Fees	10,975.10
Rent and Rentals	7,694.96
Employee Rents and Accommodation Services	20,934.77
Fire Suppression	11,424.07
Activity Services	3,419.14
Convenience Services	160.61
State Roads	10,348.22
Sale of Resources	6,722.02
Sale of Produced or Processed Items	299,426.97
Sale of Buildings and Structures	2,984.00
Sale of Salvage and Scrap	782.22
4/5 Severance Tax	159,799.67
Withdrawals	12,707.20
2/10 Mill Tax	3,004,705.23
Lanham Act	4.96
Other Revenue	883.33
TOTAL FORESTRY	$3,553,299.64
PUBLIC HUNTING AND FISHING GROUNDS—Sportsmen's Licenses	
Voluntary Sportsmen's Licenses	$ 125,306.85
Gifts and Donations	30.00
TOTAL PUBLIC HUNTING AND FISHING GROUNDS—Sportsmen's Licenses	$ 125,336.85
FEDERAL AID	
Clarke-McNary	
Cooperative Fire Fighting	$ 303,521.75
Cooperative Forest Planting Stock	31,952.00
Cooperative Farm Forestry	46.032.00
TOTAL FEDERAL AID—Clarke-McNary	$ 381,505.75
FEDERAL AID	
Soil Bank	
Conservation Reserve	$ 293,934.00
Technical Assistance	22,569.00
Nursery Development	101,026.00
Nursery Operation	33,158.00
TOTAL FEDERAL AID—Soil Bank	$ 450,687.00
FEDERAL AID	
Pittman-Robertson	
Coordination	$ 13,194.15
Farm Game and Range Research	22,818.36
Forest Game and Range Research	36,893.51
Game and Range Survey Research	12,520.54
Pathology Research	4,768.13
Wetland Game and Range Research	$ 27,364.43

Revenue

	Net Revenue 1956–1957
Regional Development—Area I	$ 506.06
Regional Development—Area II	49.68
Regional Development—Area III	114.92
Regional Development—Area IV	4,795.48
Regional Development—Area V	9,134.18
Forest Habitat Improvement—Area I	3,310.80
Forest Habitat Improvement—Area II	3,847.88
Crex Meadow Maintenance	8,649.17
Horicon Marsh Maintenance	15,372.44
Kiezer Lake Maintenance	369.16
Land Acquisition	27,566.16
Ackley Development	1,392.87
Browntown Development	499.28
C.W.C.A.—Black River Falls Development	3,367.65
C.W.C.A.—Meadow Valley Development	2,775.71
French Creek Development	929.65
Kickapoo Watershed Development	442.04
Mazomanie Development	494.06
Prairie Chicken Development	3,936.49
Sharptail Grouse Development—Area I	766.48
Sharptail Grouse Development—Area II	2,090.53
Totogatic Development	738.66
Wood County Development	137.10
Yellowstone Development	2,888.47
Dingell-Johnson	
Coordination	4,398.05
University of Wisconsin Research	23,002.35
Habitat Management—Area I	19,415.22
Habitat Management—Area II	19,221.30
Habitat Management—Area III	22,281.35
Habitat Management—Area IV	24,857.11
Habitat Management—Area V	24,477.72
Habitat Management—Evaluation	3,357.02
Land Acquisition	542.25
Area I Research	12,759.48
Area V Research	6,744.08
Delafield Development	1,889.32
Other	293.20
TOTAL FEDERAL AID—Pittman-Robertson and Dingell-Johnson	$ 374,972.49
CANCELLED DRAFTS	
Cancelled Drafts	$ 273.51
TOTAL CANCELLED DRAFTS	$ 273.51
INSURANCE LOSS	
Insurance Loss	$ 5,942.34
TOTAL INSURANCE LOSS	$ 5,942.34
GRAND TOTAL CONSERVATION FUND	$9,818,775.19
REVENUE RECAPITULATION	
Fishing Licenses	$2,192,709.75
Game Licenses	1,729,429.71
Other Licenses	10,656.37
Miscellaneous	438,132.14
Transfers from Other Funds	403,100.00
C.W.C.A.—Meadow Valley Receipts	35,282.48
State Parks Receipts	117,447.16
Forestry	3,553,299.64
Public Hunting and Fishing Grounds—Sportsmen's Licenses	125,336.85
Federal Aid—Clarke-McNary	381,505.75
Federal Aid—Soil Bank	450,687.00
Federal Aid—Pittman-Robertson	211,734.04
Federal Aid—Dingell-Johnson	163,238.45
Cancelled Drafts	273.51
Insurance Loss	5,942.34
GRAND TOTAL CONSERVATION FUND	$9,818,775.19

CONSERVATION FUND

Schedule A-3

Disbursements

(Reverse Amounts in Parentheses)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
FISH AND GAME OPERATIONS					
General Administration Transfers	$ (23,928.00)	$ (5,465.00)	$ (6,283.00)	$	$ (35,676.00)
Finance Transfers	(38,841.00)	(2,732.00)	(19,163.00)	(700.00)	(61,436.00)
Engineering—Rivers Survey Transfers	(4,070.00)	(1,050.00)	(314.00)	(375.00)	(5,809.00)
Clerical Transfers	91,067.00	533.00	24,489.00	4,784.00	120,873.00
Information and Education Transfers	35,582.00	12,618.00	50,697.00	2,077.00	100,974.00
General Administration					
Administration	37,615.00	4,029.49	11,968.49	49.94	53,662.92
Commission Services	5,443.44	4,560.75	2,698.40		12,702.59
Personnel	21,669.51	1,511.65	1,094.91	450.54	24,726.61
	$ 64,727.95	$ 10,101.89	$ 15,761.80	$ 500.48	$ 91,092.12
Finance					
Administration	$ 15,796.00	$ 1,437.91	$ 1,115.14	$ 2,296.49	$ 20,645.54
Cashier	4,365.00		218.54		4,583.54
Accounting	65,543.21	2,215.39	17,066.82	3,440.37	88,265.79
Purchasing and Property	10,170.00	572.81	431.92		11,174.73
License Sales	40,222.00	607.83	58,048.33	23.80	98,901.96
Office Rent		200.60	36,205.59		36,606.79
	$ 136,096.21	$ 5,034.54	$ 113,086.34	$ 5,760.66	$ 259,977.75
Engineering					
Engineering	$ 74,643.18	$ 7,855.99	$ (47,832.99)	$ 75,908.32	$ 110,574.41
Rivers Survey		1,907.46	67.83	74.40	2,049.69
	$ 74,643.18	$ 9,763.36	$ (47,765.16)	$ 75,982.72	$ 112,624.10
Fish Management					
Administration	$ 30,671.00	$ 4,530.76	$ 6,711.78	$ 596.10	$ 42,509.64
D-J Land Acquisition				15,115.30	15,115.30
D-J Coordination	10,000.00		141.09		10,141.09
D-J Univ. of Wis. Research			36,784.52	187.50	36,972.02
Land Acquisition				2,704.50	2,704.50
Pathology and Nutrition	1,245.00	355.37	93.86	107.80	1,802.03
NWA Supervisor	5,760.00	1,339.29	118.24	52.28	7,269.81
NWA Headquarters	76,855.61	3,045.88	11,408.38	22,575.54	113,885.41
Bayfield	14,580.00	87.68	10,753.21	68.26	25,489.15
Brule	9,581.33	42.15	6,651.07	89.76	16,364.31
Hayward	$ 9,464.95	$ 48.45	$ 4,623.73	$	$ 14,137.13

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
Osceola	$ 23,080.00	$ 132.12	$ 14,546.44	$ 536.84	$ 38,295.40
St. Croix Falls	19,755.00	46.75	9,116.25	54.47	28,972.47
NWA Biology Management	15,340.00	2,298.40	734.94	30.95	18,404.29
D–J NWA Biology Research	18,812.94	2,012.12	1,051.69	324.81	22,201.56
D–J NWA Habitat Management	23,652.67	2,672.86	6,214.13	5,154.36	37,694.02
NEA Supervisor	6,285.00	1,481.28	188.36		7,954.64
NEA Headquarters	80,007.75	4,614.07	13,542.99	19,441.18	117,605.99
Crystal Springs	10,506.58	259.88	6,243.25	370.91	17,380.62
Lakewood	9,285.00	351.52	6,017.32	249.95	15,903.79
Langlade	9,405.00	253.44	5,216.00	18.80	14,893.84
Thunder River	9,887.22	90.45	4,547.63	17.48	14,542.78
NEA Biology Management	15,201.86	2,808.82	2,601.34	121.22	20,733.24
NEA Biology Research	13,555.23	1,497.09	1,074.28	253.98	16,380.58
D–J—NEA Habitat Management	24,475.86	2,572.35	8,259.90	9,051.64	44,359.75
WCA Supervisor	6,165.00	1,256.79	455.21	158.97	8,035.97
WCA Headquarters	40,067.19	4,289.63	3,335.94	4,957.66	52,650.42
WCA Biology Management	14,715.00	1,392.55	2,901.03	191.64	19,200.22
WCA Biology Research	10,736.04	591.82	1,069.46	1,026.33	13,423.65
D–J—WCA Habitat Management	21,804.15	2,725.00	6,080.61	362.71	30,972.47
Mississippi River Survey	6,380.70	1,013.90	1,512.14	906.28	9,813.02
ECA Supervisor	6,105.00	1,277.48	259.95		7,642.43
ECA Headquarters	59,261.05	4,377.26	12,733.22	24,355.42	100,726.95
Calumet Harbor	36,217.68	2,211.76	12,474.54	19,812.21	70,716.19
Great Lakes Commercial Fishing	11,122.97	1,880.74	556.93	224.09	13,784.73
Horicon	32,564.65	2,083.61	7,089.26	1,208.22	42,945.74
Westfield	10,059.00	113.55	5,303.13	251.41	15,727.09
Wild Rose	29,186.83	445.18	20,780.91	10,747.71	61,160.63
ECA Biology Management	17,175.25	2,029.20	2,696.25	1,074.83	22,975.53
ECA Biology Research	9,823.79	1,058.29	1,276.17	822.40	12,980.65
D–J—ECA Habitat Management	23,046.65	3,656.99	5,239.01	8,204.15	40,146.80
SA Supervisor	6,285.00	1,056.65	253.13		7,591.78
SA Headquaters	75,555.29	4,009.08	10,674.12	3,991.04	94,229.53
McFarland	33,342.28	1,676.01	6,063.74	11,388.41	52,470.44
Nevin	15,870.63	163.26	12,427.88	3,406.48	31,868.25
Newville	35,182.99	2,135.21	6,482.50	5,154.11	48,954.81
SA Biology Mgt.	17,624.06	1,441.95	1,022.50	439.17	20,527.68
D–J—SA Biology Research	17,343.78	1,186.07	1,806.15	432.79	20,768.79
D–J—SA Habitat Management	33,134.56	4,362.08	8,153.61	13,387.01	59,037.26
D–J—Habitat Evaluation	9,873.52	1,456.21	6,342.05		17,671.78
D–J—Delafield Development			2,177.64	156.00	2,333.64
	$1,016,051.06	$ 78,428.00	$ 295,808.08	$ 189,782.67	$1,580,069.81

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
Game Management					
Administration	$ 42,157.56	$ 7,312.72	$ 10,901.51	$ 1,813.64	$ 62,185.43
NWA	57,112.44	9,623.15	8,149.35	6,020.04	80,904.98
NEA	61,360.00	14,700.43	12,257.39	5,725.17	94,042.99
WCA	83,897.25	11,396.80	13,250.21	2,214.08	110,758.34
ECA	71,599.71	13,658.51	13,539.20	4,100.31	102,897.73
SA	76,095.57	17,708.10	10,967.27	1,846.53	106,617.27
Game and Fur Farm	184,155.74	3,686.15	113,557.78	385.87	301,185.54
P–R Coordination	15,039.39	2,496.19	6,211.70	608.58	24,355.86
P–R Farm Game and Range Research	19,065.88	3,146.75	7,530.89	188.10	29,931.62
P–R Forest Game and Range Research	30,548.90	8,305.88	10,687.82	292.79	49,835.39
P–R Game and Range Survey Research	12,445.47	2,389.04	4,531.13	22.08	19,387.72
P–R Pathology Research	9,690.59	1,327.96	810.99	32.55	11,862.09
P–R Wetland Game and Range Research	23,016.90	3,213.49	1,508.88	710.05	28,449.32
P–R Regional Development—NWA	1,410.63	262.70	63.04		1,736.37
P–R Regional Development—NEA	2,711.70	466.01	1,412.60	46.63	4,636.94
P–R Regional Development—ECA	6,767.43	1,221.55	524.39	123.35	8,636.72
P–R Regional Development—SA	12,454.92	2,105.30	6,909.40	1,007.97	22,477.59
P–R Ackley Development	1,027.89	274.02	411.68		1,713.59
P–R CWCA B. R. F. Development	5,986.98	352.19	2,664.71	4,484.11	13,487.99
P–R CWCA Meadow Valley Development	6,167.17	365.71	2,515.33	2,280.30	11,328.51
P–R Fish Lake Development			6.12		6.12
P–R French Creek Development			1,224.05		1,224.05
P–R Kickapoo Valley Development	565.57	214.60	32.87		813.04
P–R Mazomanie Development		(5.95)	1,435.17		1,429.22
P–R Prairie Chicken Development	3,950.52	868.81	1,579.63	204.80	6,603.76
P–R Sharptail Grouse Development—NWA	3,752.03	443.82	576.22	12.50	4,784.57
P–R Sharptail Grouse Development—NEA	2,040.82	424.73	736.79		3,202.34
P–R Totogatic Development	738.92	87.19	127.69		953.80
P–R Washington Creek Development	2,352.34	194.89	429.31	1,156.84	4,133.38
P–R Wood County Development			75.80		75.80
P–R Yellowstone Development	3,194.11	363.62	1,539.47	19.31	5,116.51
P–R Hay Meadow Dam Development	7,243.55	1,146.94	1,838.78	5,432.30	15,661.57
P–R Forest Habitat Improvement—NWA	7,677.33	1,264.20	613.71	3.25	9,558.49
P–R Forest Habitat Improvement—NEA	10,045.99	2,286.58	2,555.78	728.65	15,617.00
P–R Crex Meadows Maintenance	13,814.03	1,208.14	3,393.98	2,028.64	20,444.79
P–R Horicon Marsh Maintenance	13,270.44	526.19	5,224.65	(155.40)	18,865.88
P–R Kiezer Lake Maintenance	277.97	53.00	83.59		414.56
P–R Totogatic Maintenance			9.70		9.70
Acquisition Transfer from P. H. G.				10,500.00	10,500.00
	$ 791,635.54	$ 112,489.41	$ 249,888.58	$ 51,833.04	$1,205,846.57

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
Law Enforcement					
Administration	$ 21,030.00	$ 4,659.02	$ 10,456.10	$ 1,774.32	$ 37,919.44
NWA	127,477.00	55,197.96	3,638.21	2,149.96	188,463.13
NEA	132,520.86	57,682.17	3,371.81	2,354.44	195,929.28
WCA	129,434.83	52,238.19	3,501.66	1,482.55	186,657.23
ECA	130,547.14	58,175.97	6,110.53	3,225.79	198,059.43
SA	114,439.51	45,947.43	2,846.14	1,856.93	165,090.01
Lake Michigan	15,975.00	4,066.54	1,119.93		21,161.47
Lake Superior	15,915.00	3,165.18	1,775.54	329.45	21,185.17
Radio Dispatching	29,346.17		8,164.87	8,615.81	46,126.85
Undersized Fish Purchase			272.94		272.94
	$ 716,685.51	$ 281,132.46	$ 41,257.73	$ 21,789.25	$1,060,864.95
State Employees Retirement Fund	$	$	$ 2,705.16	$	$ 2,705.16
Dodge County 25% Sale of Fur			383.76		383.76
Investment Expense			273.32		273.32
TOTAL FISH AND GAME OPERATIONS	$2,859,649.45	$ 500,853.66	$ 720,825.61	$ 351,434.82	$4,432,763.54
CONSERVING WILDLIFE			$ 9,500.00		$ 9,500.00
WATER POLLUTION COSTS			$ 39,318.08		$ 39,318.08
WATER REGULATORY BOARD			$ 6,000.00		$ 6,000.00
RETIREMENT, ETC.,—FISH AND GAME					
Conservation Wardens' Pension			$ 38,500.00		$ 38,500.00
Social Security			55,468.50		55,468.50
Unemployment Compensation			19,112.12		19,112.12
Wisconsin Retirement			123,857.02		123,857.02
TOTAL RETIREMENT, ETC.—FISH AND GAME			$ 236,937.64		$ 236,937.64
RECREATIONAL ADVERTISING					
Recreational Advertising	$ 21,719.31	$ 2,964.67	$ 173,252.27	$ 1,008.43	$ 198,944.68
Chicago Office	8,983.28	8,207.43	28,319.86	2,589.68	48,100.25
TOTAL RECREATIONAL ADVERTISING	$ 30,702.59	$ 11,172.10	$ 201,572.13	$ 3,598.11	$ 247,044.93

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
BEAR AND DEER DAMAGE					
Bear Damage			$ 2,897.37		$ 2,897.37
Deer Damage			31,500.00		31,500.00
TOTAL BEAR AND DEER DAMAGE			$ 34,397.37		$ 34,397.37
STATE PARKS					
General Administration Transfers	$ 1,946.00	$ 445.00	$ 513.00	$	$ 2,904.00
Finance Transfers	3,161.00	222.00	1,559.00	57.00	4,999.00
Clerical Transfers	6,493.00	38.00	1,745.00	341.00	8,617.00
State Parks Operations					
Administration	14,755.52	2,676.15	3,874.70	1,656.36	22,962.73
Aztalan	1,299.86	47.59	541.37	39.48	1,928.30
Brunet Island	11,455.94	74.38	1,452.89	1,142.84	14,126.05
Castle Mound	821.68		37.83		859.51
Copper Falls	11,392.03	48.00	2,129.61	580.77	14,150.41
Cushing Memorial	990.20	50.16	95.28		1,135.64
Devil's Lake	102,101.57	2,694.60	17,011.02	10,008.62	131,815.81
First Capitol	2,301.48		213.89	24.23	2,539.60
Governor Dodge			5.58	267.35	272.93
Interstate	22,288.39	509.46	2,847.77	3,718.25	29,363.87
Lost Dauphin	515.81	6.27	27.11	59.83	609.02
Lucius Woods	5,758.14	36.01	1,215.57	753.57	7,763.29
Merrick			42.05		42.05
Nelson Dewey	6,350.00	4.74	2,040.68	820.00	9,215.42
New Glarus			13.90		13.90
Ojibwa	1,203.64	16.24	117.77	147.30	1,484.95
Pattison	14,849.36	51.97	3,578.39	830.85	19,310.57
Peninsula	62,758.04	806.56	14,272.21	7,253.63	85,090.44
Perrot			152.10	61.47	213.57
Potawatami	12,428.87	8.25	1,521.83	2,718.41	16,677.36
Rib Mountain	15,583.36	543.49	6,596.26	2,257.72	24,980.83
Terry Andrae	10,772.26	30.34	1,591.56	733.67	13,127.83
Wildcat Mountain	(331.40)		10.45		(320.95)
Wyalusing	23,094.92	148.21	2,565.31	49.61	25,858.05
Cooperation—State Historical Society	4,000.00	500.00			4,500.00
Cooperation—Aztalan Exploration	914.95	27.76		186.00	1,128.71
	$ 325,304.62	$ 8,280.18	$ 61,955.13	$ 33,309.96	$ 428,849.89
TOTAL STATE PARKS	$ 336,904.62	$ 8,985.18	$ 65,772.13	$ 33,707.96	$ 445,369.89

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
SCHOOL TAX ON HUNTING GROUNDS			$ 14,595.63		$ 14,595.63
BOUNTIES—FOX			$ 44,696.25		$ 44,696.25
FORESTRY OPERATIONS					
General Administration Transfers	$ 21,982.00	$ 5,020.00	$ 5,770.00	$	$ 32,772.00
Finance Transfers	35,680.00	2,510.00	17,604.00	643.00	56,437.00
Engineering—Rivers Survey Transfers	4,070.00	1,050.00	314.00	375.00	5,809.00
Clerical Transfers	(97,560.00)	(571.00)	(26,234.00)	(5,125.00)	(129,490.00)
Information and Education Transfers	(35,582.00)	(12,618.00)	(50,697.00)	(2,077.00)	(100,974.00)
Forestry Administration					
Administration	22,755.00	2,865.25	2,063.14	849.47	28,532.86
Clerical	254,248.52	308.58	61,447.46	10,114.58	326,119.14
Forest Protection					
Administration	17,115.00	2,423.84	792.70	521.75	20,853.29
Tomahawk Headquarters	104,949.54	7,202.58	58,918.48	120,124.90	291,195.50
Tomahawk Warehouse			(11,875.41)		(11,875.41)
West Central Area Headquarters	6,285.00	1,195.20	601.42	9.15	8,090.77
District No. 9	85,888.47	867.24	14,965.59	2,379.05	104,100.35
District No. 10	81,183.68	1,027.98	9,950.84	2,016.40	94,178.90
District No. 11	31,643.35	1,911.61	9,592.76	2,327.53	45,475.25
Northern Area Headquarters	3,660.00	1,020.95	223.88	13.30	4,918.13
District No. 3	77,423.78	2,671.08	11,769.20	2,678.65	94,542.71
District No. 6	77,444.21	1,609.16	11,567.31	2,458.24	93,078.92
District No. 8	86,197.34	1,552.58	9,604.84	2,293.65	99,648.41
Northeast Area Headquarters	6,285.00	1,634.20	422.59		8,341.79
District No. 4	95,175.00	1,728.52	10,137.66	1,697.74	108,738.92
District No. 5	87,994.08	2,119.95	8,216.81	2,375.97	100,706.81
Northwest Area Headquarters	6,285.00	1,531.96	338.07	418.75	8,573.78
District No. 1	94,748.72	1,553.77	9,039.37	984.55	106,326.41
District No. 2	91,558.05	1,886.06	10,641.65	2,800.06	106,885.82
District No. 7	102,641.75	1,983.52	11,257.32	1,749.04	117,631.63
Southern Area Headquarters	525.00	274.33			799.33
District No. 12	26,527.29	1,348.28	7,353.88	15,716.87	50,946.32
East Central Area	2,100.00	890.34	115.52		3,105.86
	$1,085,630.26	$ 36,433.15	$ 173,634.48	$ 160,565.60	$1,456,263.49

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
Fire Suppression					
Reportable Fires—County	$ 9,952.06	$ 616.06	$ 4,418.02		$ 14,986.14
Nonreportable Fires—Other	12,174.82	1,058.57	912.19		14,145.58
	$ 22,126.68	$ 1,674.63	$ 5,330.21		$ 29,131.72
Forest Management					
Administration	$ 34,755.06	$ 6,242.74	$ 5,415.48	$ 901.04	$ 47,314.32
County Forestry	105,968.39	29,231.73	4,269.21	4,231.47	143,700.80
Pest Control	26,702.12	9,589.77	48,557.75	4,384.92	89,234.56
Small Woodlands	121,903.16	36,563.70	8,220.82	5,719.16	172,406.84
State Forest Inventory	76,796.95	18,482.88	7,155.47	736.14	103,171.44
University of Wis. Research	3,503.30	292.40	104,708.46	101.34	108,605.50
Forest Mgt. Transfers to Soil Bank	(40,000.00)	(6,950.00)			(46,950.00)
	$ 329,628.98	$ 93,453.22	$ 178,327.19	$ 16,074.07	$ 617,483.46
Nurseries					
Administration	$ 12,703.55	$ 963.01	$ 570.01	$ 1.80	$ 14,238.37
Gordon	16,085.10	103.45	13,963.72	3,553.43	33,705.70
Griffith	116,697.78	752.66	55,370.42	27,736.65	200,557.51
Hayward	55,714.89	602.28	7,916.01	16,167.73	80,400.91
Hugo Sauer	26,330.48	90.28	10,630.94	5,122.08	42,173.78
Trout Lake	23,180.01	79.36	3,621.36	5,703.93	32,584.66
Blister Rust	9,293.72	1,895.75			11,189.47
Nursery Transfers to Reforestation			(2,500.00)		(2,500.00)
Nursery Transfers to Soil Bank	(33,000.00)	(457.33)	(31,393.94)	(41,118.17)	(105,969.44)
	$ 227,005.53	$ 4,029.46	$ 58,178.52	$ 17,167.45	$ 306,380.96
State Forests					
Administration	$ 14,785.00	$ 1,344.29	$ 2,557.50	$ 32.00	$ 18,718.79
American Legion	11,483.76	493.75	5,084.21	451.14	17,512.86
Brule River	9,441.70	498.77	5,993.34	143.69	16,077.50
Council Grounds	3,710.00	2.10	360.53		4,072.63
Flambeau River	36,999.51	1,061.03	16,340.13	2,226.60	56,627.27
Northern Highland	92,629.14	1,139.83	22,010.09	10,306.20	126,085.26
Trout Lake Administration	11,425.00	1,451.99	501.50	210.00	13,588.49
Black River	4,325.00	707.53	532.07	180.71	5,745.31
	$ 184,799.11	$ 6,699.29	$ 53,379.37	$ 13,550.34	$ 258,428.11

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
Information and Education					
Administration	$ 8,396.68	$ 902.96	$ 674.81	$ 528.30	$ 10,502.75
Publications	6,225.00	4.65	54,063.35		60,293.00
Newspaper Service	6,585.00	189.81	3,359.50		10,134.31
Clubs	5,445.00	27.00	26.29		5,498.29
Conservation Congress		6,917.30	2,489.50		9,406.80
Exhibits	16,944.43	5,591.64	5,205.03	415.25	28,156.35
Schools	10,790.56	1,764.78	621.96		13,177.30
TV—Radio	4,108.67	426.53	3,299.94	2,502.44	10,337.58
Visual Aids	18,240.00	3,006.05	11,542.26	668.98	33,457.29
	$ 76,735.34	$ 18,830.72	$ 81,282.64	$ 4,114.97	$ 180,963.67
TOTAL FORESTRY OPERATIONS	$2,131,519.62	$ 159,685.30	$ 560,400.01	$ 216,252.48	$3,067,857.41
SOUTHERN WISCONSIN FORESTS					
Administration	$ 6,896.07	$ 2,117.93	$ 13,067.80	$ 5,269.98	$ 27,351.78
Big Foot Beach	11,641.56	85.96	4,163.89	1,607.46	17,498.87
High Cliff	3,231.61	19.32	154.66	3,046.62	6,452.21
Northern Purchase Unit	58,398.91	247.01	9,968.83	25,610.96	94,225.71
Point Beach	18,008.77	29.80	3,538.90	2,741.54	24,319.01
Southern Purchase Unit	32,399.88	331.19	4,269.67	13,591.02	50,591.76
TOTAL SOUTHERN WISCONSIN FORESTS	$ 130,576.80	$ 2,831.21	$ 35,163.75	$ 51,867.58	$ 220,439.34
KETTLE MORAINE LAND				$ 146,898.30	$ 146,898.30
COUNTY FOREST AID			$ 216,575.09		$ 216,575.09
RETIREMENT, ETC.—FORESTRY					
Social Security			$ 38,900.84		$ 38,900.84
Unemployment Compensation			59,050.11		50,050.11
Wisconsin Retirement Fund			96,019.26		96,019.26
Workmen's Compensation Awards			2,373.26		2,373.26
TOTAL RETIREMENT, ETC.—FORESTRY			$ 196,343.47		$ 196,343.47

CONSERVATION FUND—(Continued)

Schedule A-3

Disbursements

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
PUBLIC HUNTING AND FISHING GROUNDS—SPORTSMEN'S LICENSES					
NWA			$ 3,419.39	$ 601.00	$ 4,020.39
NEA			3,660.34		3,660.34
WCA			10,749.10	1,995.30	12,744.40
ECA			11,843.98	2,275.50	14,119.48
SA			22,899.70	5,681.53	28,581.23
P–R Land Acquisition				107,449.72	107,449.72
Acquisition Transfers to Game Management—Fish and Game				(10,500.00)	(10,500.00)
TOTAL PUBLIC HUNTING AND FISHING GROUNDS—SPORTSMEN'S LICENSES			$ 52,572.51	$ 107,503.05	$ 160,075.56
FEDERAL AID—SOIL BANK					
Nursery Transfers from Forestry	$ 33,000.00	$ 457.33	$ 31,393.94	$ 41,118.17	$ 105,969.44
Nursery Transfers from Reforestation	33,000.00		9,024.14	61,897.30	103,921.44
Forest Mgt. Transfers from Forestry	40,000.00	6,950.00	20.00	2,516.09	49,486.09
Soil Bank			4,090.64	4,066.66	8,157.30
	$ 106,000.00	$ 7,407.33	$ 44,528.72	$ 109,598.22	$ 267,534.27
CANCELLED DRAFTS			$ 768.61		$ 768.61
INSURANCE LOSS			$ 3,627.35	$ 1,921.85	$ 5,549.20
GRAND TOTAL CONSERVATION FUND	$5,595,353.08	$ 690,934.78	$2,483,594.35	$1,022,782.37	$9,792,664.58

REFORESTATION FUND

Exhibit B

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE REFORESTATION FUND FOR THE FISCAL YEAR 1956–1957

Appropriation	*Balance Forwarded From 1955–1956*	*Plus Revenue 1956–1957*	*Minus Disbursements 1956–1957*	*Plus Transfers 1956–1957*	*Minus Transfers 1956–1957*	*Cash Balance Forwarded To 1957–1958*	*Minus Unliquidated Encumbrances*	*Unencumbered Balance Available for 1957–1958*
Reforestation Fund	$173,997.56	$168,951.03	$143,894.89	$ 7.50	$	$199,061.20	$ 17,355.93	$181,705.27
Reforestation Fund—Cancelled Drafts	8.35				7.50	.85		.85
TOTAL REFORESTATION FUND	$174,005.91	$168,951.03	$143,894.89	$ 7.50	$ 7.50	$199,062.05	$ 17,355.93	$181,706.12

REFORESTATION FUND — Schedule B-1

Revenue

REFORESTATION	
Rent and Rentals	$ 2,686.91
Sale of Resources	124,597.54
Boscobel Nursery	35,641.65
Other Revenue	6,024.93
TOTAL REFORESTATION FUND	$168,951.03

REFORESTATION FUND — Schedule B-2

Disbursements

(Reverse Amounts in Parentheses)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
FORESTRY ACTIVITIES—REFORESTATION					
Land Acquisition	$	$	$ 15.15	$46,618.88	$ 46,634.03
State Aid			28,532.72		28,532.72
Investment Expense			8.41		8.41
P–R Boscobel Nursery	67,925.64	778.21	22,205.46	61,577.14	152,486.45
Tree Planting Machines				20,154.72	20,154.72
Nursery Transfers to Soil Bank	(33,000.00)		(9,024.14)	(61,897.30)	(103,921.44)
TOTAL REFORESTATION FUND	$34,925.64	$778.21	$41,737.60	$66,453.44	$143,894.89

GENERAL FUND

Exhibit C

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE GENERAL FUND FOR THE FISCAL YEAR 1956–1957

	Balance Forwarded From 1955–1956	*Plus Appropriation or Revenue 1956–1957*	*Minus Disbursements 1956–1957*	*Plus Transfers 1956–1957*	*Minus Transfers 1956–1957*	*Cash Balance Forwarded To 1957–1958*	*Minus Unliquidated Encumbrances*	*Unencumbered Balance Available for 1957–1958*
GENERAL FUND—LAPSING								
Forest Crop Administration	—0—	$ 4,799.94	$ 4,799.94			—0—		—0—
Forest Crop Aid	—0—	246,741.44	246,741.44			—0—		—0—
Forest Crop Severance Tax	—0—	6,200.64*	6,200.64			—0—		—0—
Forest Crop Withdrawals	—0—	374.74*	374.74			—0—		—0—
Bounties on Fox	—0—	44,696.25*	44,696.25			—0—		—0—
Bounties on Wolf and Other Animals	—0—	36,905.00*	36,905.00			—0—		—0—
TOTAL GENERAL FUND—LAPSING	—0—	$339,718.01	$339,718.01			—0—		—0—

Exhibit C-1

GENERAL FUND—NON-LAPSING								
Capital Improvements—State Parks	$225,353.76	$250,000.00	$ 95,848.54			$379,505.22	$ 86,119.41	$293,385.81
Capital Improvements—State Parks—Cox Hollow—Iowa County	10,000.00	—0—	—0—			10,000.00	—0—	10,000.00
Gifts and Donations	—0—	1,850.00	—0—			1,850.00	—0—	1,850.00
TOTAL GENERAL FUND—NON-LAPSING	$235,353.76	$251,850.00	$ 95,848.54			$391,355.22	$ 86,119.41	$305,235.81

*Sum sufficient.

GENERAL FUND — Schedule C-1

Revenue

Gifts and Donations	$ 1,850.00
	$ 1,850.00

Non-Appropriated Revenue

Forest Crop Severance Tax	$55,960.63
Forest Crop Withdrawals	762.08
	$56,722.71

GENERAL FUND — Schedule C-2

Disbursements

(Reverse Amounts in Parentheses)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1956–1957 Disbursements*
GENERAL FUND—LAPSING					
Forest Crop					
Forest Crop Administration	$4,799.94		$		$ 4,799.94
Forest Crop Aid			246,741.44		246,741.44
Forest Crop Severance Tax			6,200.64		6,200.64
Forest Crop Withdrawals			374.74		374.74
Bounties					
Bounties on Fox			44,696.25		44,696.25
Bounties on Wolf and Other Animals			36,905.00		36,905.00
TOTAL GENERAL FUND—LAPSING	$4,799.94		$334,918.07		$339,718.01
GENERAL FUND—NON-LAPSING					
Capital Improvements—State Parks					
Brunet Island			$ 149.52		$ 149.52
Governor Dodge			9,814.72		9,814.72
Cushing Memorial			3,878.92		3,878.92
Devil's Lake			17,278.83		17,278.83
First Capitol			10,305.54		10,305.54
Interstate			6,062.79		6,062.79
Lucius Woods			433.32		433.32
Mill Bluff			535.54		535.54
New Glarus			212.40		212.40
Pattison			1,421.59		1,421.59
Peninsula			32,654.85		32,654.85
Potawatomi			5,049.95		5,049.95
Rib Mountain			6,786.02		6,786.02
Terry Andrae			154.22		154.22
Tower Hill			167.01		167.01
Wildcat Mountain			902.33		902.33
Wyalusing			40.99		40.99
TOTAL GENERAL FUND—NON-LAPSING			$ 95,848.54		$ 95,848.54

FINANCIAL REPORT 1957–1958

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE OVER-ALL CONSERVATION DEPARTMENT FOR THE FISCAL YEAR 1957–1958

CONSERVATION FUND

Appropriation	*Balance Forwarded From 1956–1957*	*Plus Revenue 1957–1958*	*Minus Disbursements 1957–1958*	*Plus Transfers 1957–1958*	*Minus Transfers 1957–1958*	*Cash Balance Forwarded To 1958–1959*	*Minus Unliquidated Encumbrances*	*Unencumbered Balance Available for 1958–1959*
Fish, Game and Parks	$ 847,403.84	$ 6,138,194.69		(a) $ 436,761.11	(g) $5,364,896.23			
				(b) 240,389.99	(h) 9,500.00			
				(c) 5,806.07	(i) 17,777.73			
				(d) 5,602.63	(j) 6,000.00			
				(e) 7,644.01	(k) 333,885.19			
				(f) 737.86	(l) 254,879.29			
					(m) 4,903.96			
					(n) 16,677.86			
					(o) 40,000.00			
					(q) 500,423.14			
					(r) 16,425.91			
					(s) 984.50	$ 1,116,186.39	$	$1,116,186.39
Imprest Fund Advance	5,000.00					5,000.00		5,000.00
Fish and Game Operations	240,389.99		$ 5,093,987.37	(g) 5,364,896.23	(b) 240,389.99	(cc) 270,908.86	181,818.99	89,089.87
Conserving Wildlife	—0—		9,500.00	(h) 9,500.00		—0—		—0—
Water Pollution Costs	—0—		17,777.73	(i) 17,777.73		—0—		—0—
Water RegulatoryBoard	—0—		6,000.00	(j) 6,000.00		—0—		—0—
Retirement, etc.—Fish and Game	—0—		333,885.19	(k) 333,885.19		—0—		—0—
Recreational Advertising	5,806.07		250,196.06	(l) 254,879.29	(e) 5,806.07	(cc) 4,683.23		4,683.23
Recreational Advertising—Current	—0—		4,903.96	(m) 4,903.96		—0—		—0—
Recreational Advertising—Prior	—0—		16,677.86	(n) 16,677.86		—0—		—0—
Bear and Deer Damage	5,602.63		32,283.06	(o) 40,000.00	(d) 5,602.63	(cc) 7,716.94		7,716.94
State Parks	7,644.01		499,530.48	(q) 500,423.14	(e) 7,644.01	(cc) 892.66	434.08	458.58
School Tax on State Hunting Grounds	—0—		16,425.91	(r) 16,425.91		—0—		—0—
Gifts and Donations	—0—	54,459.73	53,448.67			1,011.06		1,011.06
Forestry	1,561,266.97	3,921,434.60		(t) 504,327.94	(v) 3,919,244.15			
				(u) 330,663.02	(x) 260,025.11			
					(y) 130,012.55			
					(z) 217,707.13			
					(aa) 273,348.57			
					(w) 17,777.73	1,499,577.29		1,499,577.29
Forestry Operations	330,663.02		3,560,728.53	(v) 3,919,244.15	(u) 330,663.02	(dd) 358,515.62	89,474.26	269,041.36
Water Pollution Costs	—0—		17,777.73	(w) 17,777.73		—0—		—0—
So. Wis. Forests	204,346.65		230,546.20	(x) 260,025.11		233,825.56	924.00	232,901.56
Kettle Moraine Land	4,711.39		60,324.70	(y) 130,012.55		74,399.24	26,126.61	48,272.63
County Forest Aid	—0—		217,707.13	(z) 217,707.13		—0—		—0—
Retirement, etc., Forestry	—0—		273,348.57	(aa) 273,348.57		—0—		—0—
Forestry Reserve	300,000.00					300,000.00		300,000.00
Ph. and Pg.—Sportsmen's Licenses	182,545.38	119,868.64	257,260.28	(a) 165,658.83		210,812.57	114,906.16	95,906.41
Federal Aid—Clarke-McNary	—0—	504,327.94			(t) 504,327.94	—0—		—0—
Federal Aid—Soil Bank	183,152.73	315,201.29	464,918.94			33,435.08	7,327.05	26,108.03
Federal Aid—Pittman-Robertson and Dingell-Johnson	—0—	602,419.94			(a) 602,419.94	—0—		—0—
Damage Claim	—0—		984.50	(s) 984.50		—0—		—0—
Cancelled Drafts	2,315.66	457.40	361.29		(f) 737.86	(bb) 1,673.91		1,673.91
Insurance Loss	10,515.11	3,775.19	3,015.46			11,274.84	144.70	11,130.14
TOTAL CONSERVATION FUND	$3,891,363.45	$11,660,139.42	$11,421,589.62	$ 13,082,060.51	$ 13,082,060.51	$ 4,129,913.25	$ 421,155.85	$3,708,757.40

See following page for footnotes.

See following page for footnotes.

CONSERVATION FUND

Footnotes

(a) $ 436,761.11 and $165,658.83 transferred to Fish, Game & Parks and Public Hunting & Fishing Grounds, Sportsmen's Licenses respectively from Federal Aid—Pittman-Robertson and Dingell-Johnson.
(b) $ 240,389.99 is prior year Fish & Game Operations balance which reverts to Fish, Game & Parks Appropriation.
(c) $ 5,806.07 is prior year Recreational Advertising balance which reverts to Fish, Game & Parks Appropriation.
(d) $ 5,602.63 is prior year Bear & Deer Damage balance which reverts to Fish, Game & Parks Appropriation.
(e) $ 7.644.01 is prior year State Parks balance which reverts to Fish, Game & Parks Appropriation.
(f) $ 737.86 consists of cancelled drafts over six years old which revert to Fish, Game & Parks Appropriation.
(g) $5,364,896.23 transferred from Fish, Game & Parks to Fish & Game Operations as 1957-58 Appropriation.
(h) $ 9,500.00 transferred from Fish, Game & Parks to Conserving Wildlife as 1957-58 Appropriation.
(i) $ 17,777.73 transferred from Fish, Game & Parks to Water Pollution Costs as 1957-58 Appropriation.
(j) $ 6,000.00 transferred from Fish, Game & Parks to Water Regulatory Board as 1957-58 Appropriation.
(k) $ 333,885.19 transferred from Fish, Game & Parks to Retirement Contributions Fish & Game as 1957-58 sum sufficient Appropriation.
(l) $ 254,879.29 transferred from Fish, Game & Parks to Recreational Advertising as 1957-58 Appropriation.
(m) $ 4.903.96 transferred from Fish, Game & Parks to Rec. Adv.—Reimb. to Highway & General Fund—Current Year.
(n) $ 16,677.86 transferred from Fish, Game & Parks to Rec. Adv.—Reimb. to Highway & General Fund—Prior Year.
(o) $ 40,000.00 transferred from Fish, Game & Parks to Bear & Deer Damage as 1957-58 Appropriation.
(q) $ 500,423.14 transferred from Fish, Game & Parks to State Parks as 1957-58 Appropriation.
(r) $ 16,425.91 transferred from Fish, Game & Parks to School Tax on State Hunting Grounds as 1957-58 sum sufficient Appropriation.
(s) $ 984.50 transferred from Fish, Game & Parks to Damage Claims Appropriation.
(t) $ 504,327.94 transferred to Forestry from Federal Aid—Clarke-McNary.
(u) $ 330,663.02 is prior year Forestry Operations balance which reverts to Forestry Appropriation.
(v) $3,919,244.15 transferred from Forestry to Forestry Operations as 1957-58 Appropriation.
(w) $ 17,777.73 transferred from Forestry to Water Pollution Costs as 1957-58 Appropriation.
(x) $ 260,025.11 transferred from Forestry to So. Wis. Forests as 1957-58 Appropriation.
(y) $ 130,012.55 transferred from Forestry to Kettle Moraine Land as 1957-58 Appropriation.
(z) $ 217,707.13 transferred from Forestry to County Forest Aid as 1957-58 sum sufficient Appropriation.
(aa) $ 273,348.57 transferred from Forestry to Retirement Contributions—Forestry as 1957-58 sum sufficient Appropriation.
(bb) Items over six years old totalling $340.40 will revert to Fish, Game & Parks Appropriation.
(cc) Balances revert to Fish, Game & Parks Appropriation.
(dd) Balance reverts to Forestry Appropriation.

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE OVER-ALL CONSERVATION DEPARTMENT FOR THE FISCAL YEAR 1957–1958—Continued

GENERAL FUND

Appropriation	*Balance Forwarded From 1956–1957*	*Plus Revenue 1956–1957*	*Minus Disbursements 1956–1957*	*Plus Transfers 1956–1957*	*Minus Transfers 1956–1957*	*Cash Balance Forwarded To 1958–1959*	*Minus Unliquidated Encumbrances*	*Unencumbered Balance Available for 1958–1959*
GENERAL FUND—LAPSING								
Forest Crop Administration	—0—	$ 4,769.74	$ 4,769.74			—0—		—0—
Forest Crop Aid	—0—	248,903.64	248,903.64			—0—		—0—
Forest Crop Severance Tax	—0—	63,033.95	9,126.10			53,907.85[1]		53,907.85[1]
Forest Crop Withdrawals	—0—	1,423.52	344.84			1,078.68[1]		1,078.68[1]
TOTAL GENERAL FUND—LAPSING	—0—	$ 318,130.85	$ 263,144.32			$ 54,986.53[1]		$ 54,986.53[1]
GENERAL FUND—NON-LAPSING								
Capital Improvements—State Parks	$ 379,505.22		$ 211,897.60			$ 167,607.62	$ 28,692.17	$ 138,915.45
Capital Improvements—State Parks—Cox Hollow—Iowa County	10,000.00		10,000.00			—0—		—0—
Gifts and Donations	1,850.00		1,850.00			—0—		—0—
TOTAL GENERAL FUND—NON-LAPSING	$ 391,355.22		$ 223,747.60			$ 167,607.62	$ 28,692.17	$ 138,915.45
REFORESTATION FUND	$ 199,061.20	$ 155,683.53	$ 90,080.15			$ 264,664.58	$ 2,316.93	$ 262,347.65
Reforest Fund—Cancelled Drafts	.85					.85		.85
TOTAL REFORESTATION FUND	$ 199,062.05	$ 155,683.53	$ 90,080.15			$ 264,665.43	$ 2,316.93	$ 262,348.50
WARDEN PENSION FUND	$ 418,455.89	$ 95,356.08	$ 58,864.48			$ 454,947.49		$ 454,947.49
TOTAL WARDEN PENSION FUND	$ 418,455.89	$ 95,356.08	$ 58,864.48			$ 454,947.49		$ 454,947.49
GRAND TOTAL CONSERVATION DEPARTMENT	$4,900,236.61	$12,229,309.88	$12,057,426.17	$ 13,082,060.51	$ 13,082,060.51	$ 5,072,120.32[2]	$ 452,164.95	$4,619,955.37[2]

[1] Non-appropriated Revenue—reverts to General Fund.
[2] Less $54,986.53,—See Item No. 1 above.

CONSERVATION FUND

Revenue

	Net Revenue 1957–1958
FISH, GAME AND PARKS	
Fishing Licenses	
Fish Shipping Coupons	$ 239.70
N. R. Combination 15-day Fishing Licenses	314,277.45
N. R. Fishing Licenses	1,205,522.60
Resident Fishing Licenses	854,802.66
Great Lakes Commercial Fishing Licenses	10,569.50
Bait Dealers Licenses	8,585.00
Mississippi River Commercial Fishing Licenses	4,362.50
Private Fish Hatchery Licenses	2,975.00
Slat Net Licenses and Tags	1,531.00
Wholesale Fish Dealer Licenses	4,800.00
Trammel Net Licenses	420.00
Bank Pole Fishing Licenses	1,090.05
Cisco Licenses	363.00
Set Line Licenses and Tags	3,765.00
Sturgeon Tags	6,247.00
Bait Net Licenses	10.00
Game Licenses	
Resident Hunting Licenses—Small Game	956,894.30
Resident Hunting Licenses—Big Game	911,039.60
N. R. Hunting Licenses—Small Game	61,468.75
N. R. Hunting Licenses—Big Game	104,547.75
N. R. Hunting Licenses—Archers	33,332.30
N. R. Shooting Preserve Hunting Licenses	4,097.10
Shooting Preserve Licenses and Tags	1,230.05
Settler Hunting Licenses—Small Game	1,207.00
Settler Hunting Licenses—Big Game	1,520.00
Trapping Licenses	10,369.30
Trap Tags	32,163.87
Beaver Trapping Licenses and Tags	17,641.00
Deer Farm Licenses	2,675.00
Dead and Live Deer Tags	1,109.50
Resident Fur Dealers Licenses	2,575.00
Itinerant Fur Buyer Licenses	400.00
Game Farm Licenses and Tags	2,894.06
Muskrat Farm Licenses and Tags	1,973.20
Beaver Farm Licenses and Tags	144.77
Otter, Raccoon, Mink and Skunk Licenses and Tags	1,381.84
Voluntary Sportsmen Licenses	386,382.00
Deer Party Permits	159,445.00
Exhibition Game Licenses	10.00
Other Licenses	
Christmas Tree Dealer Licenses and Tags	7,645.34
Duplicate Licenses	2,115.25
Guide Licenses	3,486.00
Scientific Certificates	68.00
Taxidermist Licenses	510.00
Miscellaneous	
Warden and Witness Fees	5,441.88
Rent and Rentals	23,067.70
Employee Rents and Accommodation Services	13,258.67
Activity Services	2,049.01
Supervision and Inspection Services	1,007.63
Sale of Resources	23,851.64
Sale of Confiscations and Seizures	20,550.85
Sale of Produced or Processed Items	3,887.15
Sale of Equipment	2,705.39
Sale of Supplies	2,195.70
Sale of Buildings and Structures	3,522.94
Sale of Signs	632.65
Sale of Salvage and Scrap	722.53
Sale of Rough Fish	185,358.61
Commission on Sale of Rough Fish	7,144.19
Investment Income	155,710.07
Other Revenue	10,397.18
Meadow Valley Receipts	
Sale of Resources	12,604.84

CONSERVATION FUND

Revenue

	Net Revenue 1957–1958
State Park Receipts	
Camp Site Fees	56,371.35
Golf Fees	22,695.00
Rent and Rentals	39,565.43
Employee Rents and Accommodation Services	3,640.00
State Park Roads	5,058.04
Activity Services	50.00
Convenience Services	4,713.95
Sale of Resources	60.00
Sale of Produced or Processed Items	140.00
Sale of Equipment	311.60
Sale of Salvage and Scrap	251.91
Other Revenue	242.34
Transfer From Other Funds	
Highway Fund—Recreational Advertising	150,000.00
General Fund—Recreational Advertising	103,100.00
General Fund—State Parks	150,000.00
TOTAL FISH, GAME AND PARKS	$ 6,138,194.69
FORESTRY	
Fire Suppression—Tax Levy	$ 1,740.79
Camp Site Fees	22,936.05
Rents and Rentals	6,916.11
Employee Rents and Accommodation Services	19,222.97
Fire Suppression and Pest Control	19,956.31
Activity Services	14,208.22
Convenience Services	585.20
State Forest Roads	10,738.18
Sale of Resources	5,159.68
Sale of Produced or Processed Items	398,163.64
Sale of Buildings and Structures	401.60
Sale of Equipment	1,935.54
Sale of Salvage and Scrap	636.16
4/5 Severance Tax	169,187.73
Withdrawal F. C. L.	2,535.87
2/10 Forestry Mill Tax	3,244,714.42
Lanham Act	5.44
Other Revenue	2,390.69
TOTAL FORESTRY	$ 3,921,434.60
PUBLIC HUNTING AND FISHING GROUNDS	
Sportsmen Licenses	$ 119,728.00
Other Revenue	140.64
TOTAL PUBLIC HUNTING AND FISHING GROUNDS	$ 119,868.64
FEDERAL AID	
Clarke-McNary	
Cooperative Fire Control	$ 369,851.61
Cooperative Forest Planting	40,000.00
Cooperative Forest Management	77,156.99
Cooperative Pest Control	17,319.34
TOTAL FEDERAL AID—Clarke-McNary	$ 504,327.94
FEDERAL AID	
Soil Bank	
Conservation Reserve	$ 124,296.00
Technical Assistance	6,101.50
Nursery Development	382.79
Nursery Operation	184,421.00
TOTAL FEDERAL AID—SOIL BANK	$ 315,201.29

CONSERVATION FUND

Revenue

	Net Revenue 1957–1958
FEDERAL AID	
Pittman-Robertson	
Co-ordination	$ 19,982.58
Farm Game and Range Research	25,843.23
Forest Game and Range Research	41,040.12
Game and Range Survey Research	11,635.59
Pathology Research	7,026.59
Wetland Game and Range Research	22,552.67
Regional Development—N.W. Area	3,510.71
Regional Development—N.E. Area	5,329.36
Regional Development—W.C. Area	531.67
Regional Development—E.C. Area	7,262.41
Regional Development—S. Area	17,087.50
Forest Habitat Development—N.W. Area	13,546.24
Forest Habitat Development—N.E. Area	24,757.88
Forest Habitat Development—W.C. Area	5,429.26
Horicon Marsh Maintenance	4,484.02
Keizer Lake Maintenance	20.17
Land Acquisition	147,818.69
Ackley Development	32.27
Crex Meadows Development	9,161.79
C.W.C.A.—M.V. Development	5,528.46
Horicon Marsh Development	3,023.22
French Creek Development	14.62
Mazomanie Development	1,452.56
Prairie Chicken Development	1,981.84
Totogatic Development	151.81
Yellowstone Development	3,683.84
Washington Creek Development	2,283.57
TOTAL FEDERAL AID—P. R.	$ 385,172.67
FEDERAL AID	
Dingell-Johnson	
Co-ordination	$ 6,660.85
University of Wisconsin Research	5,683.01
Habitat Management—N.W. Area	22,920.06
Habitat Management—N.E. Area	26,733.24
Habitat Management—W.C. Area	20,608.97
Habitat Management—E.C. Area	25,364.35
Habitat Management—S. Area	37,492.95
Habitat Evaluation	18,035.87
Land Acquisition	17,840.14
N.W. Area Biology Research	18,120.72
S. Area Biology Research	17,787.11
TOTAL FEDERAL AID—D. J.	$ 217,247.27
GIFTS AND DONATIONS	
P. R. Projects	$ 2,777.00
P. R. Reimbursements	2,496.94
Devil's Lake	10,000.00
Rib Mountain Shelter Building	27,410.00
Eau Galle—R. F.	300.00
Polk County Pickerel Lake Acquisition	250.00
High Cliff Forest Park	10,119.40
Kettle Moraine Forest	1,036.39
Miscellaneous Gifts	70.00
TOTAL GIFTS AND DONATIONS	$ 54,459.73
CANCELLED DRAFTS	
Cancelled Drafts	$ 457.40
TOTAL CANCELLED DRAFTS	$ 457.40
INSURANCE LOSS	
Insurance Loss	$ 3,775.19
TOTAL INSURANCE LOSS	$ 3,775.19
GRAND TOTAL CONSERVATION FUND	$11,660,139.42

CONSERVATION FUND

Revenue

	Net Revenue 1957–1958
REVENUE RECAPITULATION	
Fishing Licenses	$ 2,419,560.46
Game Licenses	2,694,501.39
Other Licenses	13,824.59
Miscellaneous	461,503.79
Meadow Valley Receipts	12,604.84
State Park Receipts	133,099.62
Transfers from Other Funds	403,100.00
Forestry	3,921,434.60
Public Hunting and Fishing Licenses	119,868.64
Federal Aid—Clarke–McNary	504,327.94
Federal Aid—Soil Bank	315,201.29
Federal Aid—Pittman–Robertson	385,172.67
Federal Aid—Dingell–Johnson	217,247.27
Gifts and Donations	54,459.73
Cancelled Drafts	457.40
Insurance Loss	3,775.19
GRAND TOTAL CONSERVATION FUND	$11,660,139.42

GENERAL FUND

Revenue

FOREST CROP	
Forest Crop Taxes	
1/5 Severance Taxes—County	$ 42,349.33
100% Severance Taxes—Private	20,684.62
Withdrawal F. C. L.—Private	1,423.52
TOTAL FOREST CROP	$ 64,457.47

CONSERVATION WARDEN PENSION FUND

Revenue

WARDEN PENSION	
Employee Contributions	$ 15,305.66
Municipal Contributions	67,000.00
Investment Income	13,050.42
TOTAL WARDEN PENSION	$ 95,356.08

REFORESTATION FUND

Revenue

REFORESTATION	
Rent and Rentals	$ 8,199.40
Sale of Resources	127,768.75
Sale of Equipment	2,305.00
Federal Aid P. R.	13,517.65
Investment Income	3,866.60
Other Revenue	26.13
TOTAL REFORESTATION	$ 155,683.53

CONSERVATION DEPARTMENT DISBURSEMENTS

Conservation Fund

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
FISH AND GAME OPERATIONS					
General Administration Transfers	$ 50,938.00—	$ 8,806.00—	$ 8,090.00—	$ 1,095.00—	$ 68,929.00—
	50,938.00—*	8,806.00—*	8,090.00—*	1,095.00—*	68,929.00—*
Finance Transfers	47,295.00—	1,904.00—	34,018.00—	907.00—	84,124.00—
	47,295.00—*	1,904.00—*	34,018.00—*	907.00—*	84,124.00—*
Clerical Transfers	99,070.00	506.00	30,609.00	3,519.00	133,704.00
	99,070.00 *	506.00 *	30,609.00 *	3,519.00 *	133,704.00 *
Information and Education Transfers	36,122.00	11,107.00	58,008.00	3,163.00	108,400.00
	36,122.00 *	11,107.00 *	58,008.00 *	3,163.00 *	108,400.00 *
General Administration					
Commission Services	$ 5,676.30	$ 1,955.17	$ 235.76	$	$ 7,867.23
Personnel	29,383.02	1,395.82	1,153.41		31,932.25
Administration	82,381.03	6,868.11	16,017.40	1,110.55	106,377.09
	$ 117,440.35 *	$ 10,219.10 *	$ 17,406.57 *	$ 1,110.55 *	$ 146,176.57 *
Finance					
WCA Business Management	$ 5,996.00	$ 197.06	$ 3,563.88	$ 1,247.15	$ 11,004.09
ECA Business Management	12,211.47	170.01	2,865.19	2,176.46	17,423.13
SA Business Management	21,258.20	66.71	3,290.58	197.61	24,813.10
Accounting	71,534.81	1,145.27	22,614.05	1,513.04	96,807.17
Cashier	4,896.00		535.91	18.50	5,450.41
License Sales	40,800.00	1,030.71	83,274.07	9.50	125,114.28
Purchasing and Property	11,112.00	752.79	545.46		12,410.25
Office Rent			48,401.32		48,401.32
Administration	17,292.00	1,110.53	2,345.97—		16,056.56
	$ 185,100.48 *	$ 4,473.08 *	$ 162,744.49 *	$ 5,162.26 *	$ 357,480.31 *
Engineering					
Engineering	$ 88,256.94	$ 9,148.82	$ 61,459.29—	$ 2,435.28	$ 38,381.75
Rivers Survey		2,332.22	20.25	290.90	2,643.37
	$ 88,256.94 *	$ 11,481.04 *	$ 61,439.04—*	$ 2,726.18 *	$ 41,025.12 *

CONSERVATION FUND DISBURSEMENTS–(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
Fish Management					
NWA	$ 115,262.00	$ 8,952.00	$ 14,850.49	$ 20,465.59	$ 159,530.08
Bayfield	15,984.00	186.00	10,602.99	152.15	26,925.14
Brule	11,039.03	165.60	6,736.82	3,916.99	21,858.44
Hayward	10,753.30	72.90	4,937.44	560.41	16,324.05
Osceola	26,827.60	269.28	17,687.84	686.37	45,471.09
St. Croix Falls	21,600.00	168.70	15,790.90	20,711.61	58,271.21
NWA Habitat Management	28,458.03	3,049.08	4,859.47	946.34	37,312.92
NEA	121,140.99	10,716.78	19,349.92	11,404.94	162,612.63
Crystal Springs	11,682.00	181.21	7,230.95	479.36	19,573.52
Lakewood	10,408.00	268.06	4,033.91	502.48	15,212.45
Langlade	10,510.49	173.44	4,037.39	346.25	15,067.57
Thunder River	9,492.48	107.06	4,124.48	467.20	14,191.22
NEA Habitat Management	27,631.69	2,694.55	7,766.02	553.18	38,645.44
WCA	67,144.92	8,075.75	14,460.65	10,240.17	99,921.49
Mississippi River Survey	8,692.00	988.60	1,742.55	787.20	12,210.35
WCA Habitat Management	22,272.54	2,752.79	5,761.82	704.30	31,491.45
ECA	79,972.17	6,890.21	23,006.36	8,461.25	118,329.99
Calumet Harbor	40,003.28	1,467.76	11,481.85	7,029.94	59,982.83
Great Lakes Commercial Fishing	11,773.34	1,968.43	628.38		14,370.15
Horicon	36,818.97	2,254.49	9,584.92	2,363.31	51,021.69
Westfield	10,784.82	95.07	7,141.62	315.57	18,337.08
Wild Rose	33,808.00	422.97	25,980.54	1,188.02	61,399.53
ECA Habitat Management	28,284.03	4,309.16	5,920.52	2,737.78	41,251.49
SA	93,884.49	7,390.34	16,930.43	14,484.80	132,690.06
McFarland	41,078.83	2,137.76	10,125.92	1,188.23	54,530.74
Nevin	20,234.00	195.24	13,156.27	222.91	33,808.42
Newville	36,811.98	1,805.79	8,531.11	6,185.31	53,334.19
SA Habitat Management	36,519.73	4,914.16	11,155.43	931.81	53,521.13
University of Wisconsin Research			56,453.19		56,453.19
Pathology and Nutrition	8,438.00	2,284.26	457.37	657.00	11,836.63
NWA Biology Research	22,349.80	1,930.16	1,270.36	1,109.91	26,660.23
NEA Biology Research	16,088.15	906.78	1,658.95	1,008.31	19,662.19
WCA Biology Research	11,497.48	616.79	1,143.90	1,481.42	14,739.59
ECA Biology Research	13,342.89	1,169.46	2,038.73	1,548.08	18,099.16
SA Biology Research	17,532.09	1,254.69	1,995.83	521.02	21,303.63
Habitat Evaluation	11,802.42	2,044.89	6,127.02	378.30	20,352.63
D–J Coordination	12,664.00	707.16	124.86		13,496.02
D–J Land Acquisition				4,532.21	4,532.21
Land Acquisition			416.17	8,910.37	9,326.54
Administration	46,746.65	6,529.37	7,702.99	822.33	61,801.34
	$1,149,334.19 *	$ 90,116.74 *	$ 367,006.36 *	$ 139,002.42 *	$ 1,745,459.71 *

CONSERVATION FUND DISBURSEMENTS–(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
Game Management					
NWA	$ 57,391.21	$ 9,959.62	$ 10,157.96	$ 11,065.13	$ 88,573.92
NEA	66,667.16	13,729.96	12,935.27	21,166.04	114,498.43
WCA	96,239.89	13,441.86	13,879.77	11,973.31	135,534.83
ECA	88,469.96	16,871.21	18,613.21	15,898.56	139,852.94
SA	84,540.15	19,975.36	11,012.46	6,219.19	121,747.16
P–R Regional Development—NWA	375.78	147.81	12.60		536.19
P–R Regional Development—NEA	3,047.51	855.72	830.29	430.65	5,164.17
P–R Regional Development—ECA	5,543.60	1,029.94	264.58	500.00	7,338.12
P–R Regional Development—SA	13,388.17	1,713.31	5,444.31	115.40	20,661.19
P–R Crex Meadows Development	18,165.90	1,704.76	4,782.95	3,160.45	27,814.06
P–R CWCA Meadow Valley Development	5,965.85	352.86	2,335.93	2,976.28	11,630.92
P–R Forest Habitat Development—NWA	14,565.72	1,619.71	4,830.12		21,015.55
P–R Forest Habitat Development—NEA	18,243.51	4,759.03	7,902.75	1,510.63	32,415.92
P–R Forest Habitat Development—WCA	6,702.58	459.57	4,737.38	3,671.56	15,571.09
P–R Horicon Marsh Development	14,350.16	564.41	3,892.78	335.15	19,142.50
P–R Mazomanie Development	56.37		1,202.55		1,258.92
P–R Powell Marsh Development	11,205.41	2,156.46	2,599.38	11,177.56	27,138.81
P–R Yellowstone Development	4,968.78	210.34	845.63	20.00	6,044.75
P–R Farm Game and Range Research	22,353.52	3,010.56	7,290.15		32,654.23
P–R Forest Game and Range Research	38,336.14	8,783.07	8,506.19	507.54	56,132.94
P–R Game and Range Survey	14,377.86	1,665.31	1,405.84	26.78	17,475.79
P–R Pathology Research	7,176.00	1,469.01	883.48	187.30	9,715.79
P–R Wetland Game and Range Research	25,727.86	3,848.30	3,158.16	606.12	33,340.44
P–R Coordination	14,479.58	1,971.27	5,419.45	1,000.10	22,870.40
Game and Fur Farm	187,404.36	2,963.87	111,167.30	2,817.77	304,353.30
P–R Land Acquisition			205.00	168,994.59	169,199.59
Administration	49,715.99	8,319.83	10,377.78	1,087.03	69,500.63
	$ 869,459.02 *	$121,583.15 *	$ 254,693.27 *	$ 265,447.14 *	$ 1,511,182.58 *
Law Enforcement					
NWA	$ 165,350.44	$ 61,649.23	$ 7,137.27	$ 3,075.85	$ 237,212.79
NEA	148,629.41	62,902.57	4,293.87	2,896.46	218,722.31
WCA	143,852.41	56,016.19	3,534.98	2,903.70	206,307.28
ECA	168,396.36	66,258.26	7,538.62	2,963.98	245,157.22
SA	132,721.56	50,160.70	5,049.49	3,059.53	190,991.28
Radio Dispatching	27,319.08		12,656.32	648.10	40,623.50
Administration	36,516.00	9,614.19	13,630.03	1,630.27	61,390.49
	$ 822,785.26 *	$306,601.14 *	$ 53,840.58 *	$ 17,177.89 *	$ 1,200,404.87 *

CONSERVATION FUND DISBURSEMENTS—(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
State Employes' Retirement Fund—Fish and Game			$ 2,656.91		$ 2,656.91
	*	*	2,656.91 *	*	2,656.91 *
Dodge County 25% of Fur			284.03		284.03
	*	*	284.03 *	*	284.03 *
Investment Expense—Fish and Game			266.27		266.27
	*	*	266.27 *	*	266.27 *
TOTAL FISH AND GAME OPERATIONS	$3,269,335.24	$545,377.25	$ 843,968.44	$ 435,306.44	$ 5,093,987.37
CONSERVING WILDLIFE			$ 9,500.00		$ 9,500.00
WATER POLLUTION			$ 17,777.73		$ 17,777.73
WATER REGULATORY BOARD			$ 6,000.00		$ 6,000.00
RETIREMENT, ETC.—FISH AND GAME					
Social Security			$ 70,645.71		$ 70,645.71
Unemployment Compensation			33,543.38		33,543.38
Wisconsin Retirement			153,255.64		153,255.64
Workmens Compensation			4,061.58		4,061.58
Conservation Wardens Pension			67,000.00		67,000.00
Group Life Insurance Board			4,178.88		4,178.88
Judgment Relief Awards			1,200.00		1,200.00
TOTAL RETIREMENT, ETC., FISH AND GAME	*	*	$ 333,885.19 *	*	$ 333,885.19 *
RECREATIONAL ADVERTISING					
Recreational Advertising	$ 21,804.00	$ 3,538.82	$ 180,576.05	$ 6,613.75	$ 212,532.62
Chicago Office	14,649.61	5,452.17	16,861.16	700.50	37,663.44
TOTAL RECREATIONAL ADVERTISING	$ 36,453.61 *	$ 8,990.99 *	$ 197,437.21 *	$ 7,314.25 *	$ 250,196.06 *
REIMBURSE, TO HWY. DEPT. AND GENERAL FUND					
Reimbursements to Hwy. Dept., 56-57			$ 2,906.34		$ 2,906.34
Reimbursements to General Fund, 56-57			1,997.62		1,997.62
TOTAL REIM. TO HWY. DEPT. AND GENERAL FUND	*	*	$ 4,903.96 *	*	$ 4,903.96 *
Reimbursements to Hwy. Dept., 55-56			9,889.97		9,889.97
Reimbursements to General Fund, 55-56			6,787.99		6,787.89
TOTAL REIM. TO HWY. DEPT. AND GENERAL FUND	*	*	$ 16,677.86 *	*	$ 16,677.86 *

CONSERVATION FUND DISBURSEMENTS—(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
BEAR AND DEER DAMAGE					
Bear Damage			$ 6,790.25		$ 6,790.25
Deer Damage			25,492.81		25,492.81
TOTAL BEAR AND DEER DAMAGE	*	*	$ 32,283.06 *	*	$ 32,283.06 *
STATE PARKS					
General Administration Transfers	$ 2,434.00	$ 666.00	$ 615.00	$ 85.00	$ 3,800.00
	2,434.00 *	666.00 *	615.00 *	85.00 *	3,800.00 *
Finance Transfers	$ 4,473.00	$ 180.00	$ 3,217.00	$ 86.00	$ 7,956.00
	4,473.00 *	180.00 *	3,217.00 *	86.00 *	7,956.00 *
Clerical Transfers	8,610.00	44.00	2,493.00	359.00	11,506.00
	8,610.00 *	44.00 *	2,493.00 *	359.00 *	11,506.00 *
State Park Operations					
Aztalan	1,173.99	11.90	665.60	44.61	1,896.10
Brunet Island	11,784.31	209.23—	2,242.07	522.73	14,339.88
Castle Mound	2,781.67	11.45	311.16	103.99	3,208.27
Copper Falls	12,848.87	80.70	3,008.44	2,018.28	17,956.29
Cushing Memorial	1,061.00	62.31	295.83		1,419.14
Devil's Lake	118,172.90	2,964.95	18,499.50	12,026.34	151,663.69
First Capitol	2,355.91		310.41	221.80	2,888.12
Interstate	24,993.52	569.62	4,360.46	800.79	30,724.39
Lost Dauphin	522.57		25.07	280.00	827.64
Lucius Woods	6,385.62	3.00	623.78	637.61	7,650.01
Nelson Dewey	7,032.00	17.16	1,459.89	1,465.36	9,974.41
Ojibwa	1,423.92	24.98	262.13	90.65	1,801.68
Pattison	16,475.38	148.04	4,199.81	1,726.92	22,550.15
Peninsula	64,528.08	630.94	15,373.23	5,871.81	86,404.06
Potawatomi	15,885.61	18.45	2,201.91	595.06	18,701.03
Rib Mountain	17,958.15	263.89	6,555.31	1,272.63	26,049.98
Terry Andrae	11,855.11	48.84	1,732.85	114.75	13,751.55
Wyalusing	25,883.85	130.76	2,853.42	581.75	29,449.78
Coop.—State Historical Society	3,666.66	458.34			4,125.00
Coop.—Aztalan Exploration	723.70	86.47	66.00	1,977.03	2,853.20
Administration	22,259.32	3,453.16	2,279.95	41.68	28,034.11
	$ 369,772.14 *	$ 8,775.73 *	$ 67,326.82 *	$ 30,393.79 *	$ 476,268.48 *
TOTAL STATE PARKS	$ 385,289.14	$ 9,665.73	$ 73,651.82	$ 30,923.79	$ 499,530.48

CONSERVATION FUND DISBURSEMENTS–(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
SCHOOL TAX ON HUNTING GROUNDS			$ 16,425.91		$ 16,425.91
GIFTS AND DONATIONS			$ 1,483.50	$ 51,965.17	$ 53,448.67
FORESTRY OPERATIONS					
General Administrative Transfers	$ 48,504.00	$ 8,140.00	$ 7,475.00	$ 1,010.00	$ 65,129.00
	48,504.00 *	8,140.00 *	7,475.00 *	1,010.00 *	65,129.00 *
Finance Transfers	42,822.00	1,724.00	30,801.00	821.00	76,168.00
	42,822.00 *	1,724.00 *	30,801.00 *	821.00 *	76,168.00 *
Clerical Transfers	107,680.00—	550.00—	33,102.00—	3,878.00—	145,210.00—
	107,680.00—*	550.00—*	33,102.00—*	3,878.00—*	145,210.00—*
Information and Education Transfers	36,122.00—	11,107.00—	58,008.00—	3,163.00—	108,400.00—
	36,122.00—*	11,107.00—*	58,008.00—*	3,163.00—*	108,400.00—*
Clerical	286,613.18	628.07	74,396.91	6,856.93	368,495.09
	286,613.18 *	628,07 *	74,396.91 *	6,856.93 *	368,495.09 *
Forest Protection					
NWA Headquarters	6,816.00	1,594.80	444.47	272.65	9,127.92
NEA Headquarters	6,816.00	1,930.75	505.95	28.90	9,281.60
WCA Headquarters	15,580.00	2,144.74	2,403.19	891.54	21,019.47
ECA Headquarters	11,856.00	675.21	869.15	426.10	13,826.46
SA Headquarters	4,544.26	2,751.33	167.67	267.60	7,730.86
District No. 1	103,396.03	1,769.73	9,134.95	879.66	115,180.37
District No. 2	95,077.08	1,410.16	10,605.26	1,805.68	108,898.18
District No. 3	80,049.61	2,015.72	10,122.50	1,276.48	93,464.31
District No. 4	94,646.33	1,953.58	10,180.10	1,954.07	108,734.08
District No. 5	97,474.57	2,396.10	9,902.44	2,077.66	111,850.77
District No. 6	90,290.48	2,121.21	11,703.81	887.45	105,002.95
District No. 7	111,872.94	2,690.40	10,268.08	2,507.93	127,339.35
District No. 8	103,259.91	1,673.09	10,584.40	2,115.95	117,633.35
District No. 9	93,550.09	1,649.90	10,939.23	2,235.19	108,374.41
District No. 10	91,113.68	1,480.53	11,734.14	1,138.34	105,466.69
District No. 11	35,407.07	1,693.61	14,081.67	1,963.66	53,146.01
District No. 12	24,891.72	1,069.05	12,000.15	2,182.63	40,143.55
Tomahawk Warehouse			3,200.28—	13.75—	3,214.03—
Tomahawk Headquarters	117,701.28	7,654.26	68,673.92	103,597.87	297,627.33
Administration	18,708.00	3,014.14	678.31		22,400.45
	$1,203,051.05 *	$ 41,688.31 *	$ 201,799.11 *	$ 126,495.61 *	$ 1,573,034.08 *

CONSERVATION FUND DISBURSEMENTS–(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
Fire Suppression					
Reportable Fires (County)	$ 10,780.39	$ 634.66	$ 10,873.22		$ 22,288.27
Non Reportable Fires (Other)	11,507.32	1,193.11	1,034.82		13,735.25
	$ 22,287.71 *	$ 1,827.77 *	$ 11,908.04 *		$ 36,023.52 *
Forest Management					
County Forests	$ 150,301.20	$ 34,666.53	$ 4,344.94	$ 3,207.80	$ 192,520.47
Pest Control	34,733.25	8,470.40	15,844.14	178.52	59,226.31
Private Forestry	189,679.39	49,487.66	14,404.67	4,775.85	258,347.57
State Forest Inventory	96,772.80	30,050.72	11,011.92	545.36	138,380.80
University of Wisconsin Research	5,103.33	559.64	124,155.10		129,818.07
Transfers to Soil Bank	25,186.70—	7,705.56—			32,892.26—
Transfers to ASCP	40,000.00—	9,296.00—			49,296.00—
Administration	45,943.26	7,049.25	5,477.82	917.81	59,388.14
	$ 457,346.53 *	$113,282.64 *	$ 175,238.59 *	$ 9,625.34 *	$ 755,493.10 *
Nurseries					
Boscobel	$ 82,982.28	$ 580.37	$ 19,285.15	$ 31,116.13	$ 133,963.93
Gordon	21,620.73	157.31	17,672.64	16,038.32	55,489.00
Griffith	131,516.17	195.04	17,312.24	18,920.63	167,944.08
Hayward	67,196.63	576.69	11,489.19	20,510.23	99,772.74
Hugo Sauer	45,757.25	138.59	13,682.50	2,830.89	62,409.23
Trout Lake	21,750.40	48.64	3,690.12	296.39	25,785.55
Blister Rust	12,908.70	2,062.31			14,971.01
Nursery Transfers to Soil Bank	100,000.00—	388.44—	85,000.24—	42,959.77—	228,348.45—
Administration	13,104.00	1,300.74	78,718.75		93,123.49
	$ 296,836.16 *	$ 4,671.25 *	$ 76,850.35 *	$ 46,752.82 *	$ 425,110.58 *
State Forests					
American Legion	$ 14,526.50	$ 570.84	$ 4,878.75	$ 4,197.06	$ 24,173.15
Black River	18,278.65	1,363.53	2,377.43	6,162.47	28,182.08
Brule River	9,663.02	52.78	4,538.05	274.24	14,528.09
Council Grounds	5,519.33	18.75	1,021.94	142.61	6,702.63
Flambeau River	36,852.30	821.05	17,260.80	6,817.99	61,752.14
Northern Highland	101,563.64	1,446.09	20,615.65	7,786.10	131,411.48
Trout Lake Administration	16,410.00	1,974.42	775.74	5.75	19,165.91
Administration	6,177.77	2,654.55	10,096.35	109.95	19,038.62
	$ 208,991.21 *	$ 8,902.01 *	$ 61,564.71 *	$ 25,496.17 *	$ 304,954.10 *

CONSERVATION FUND DISBURSEMENTS—(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
Information and Education					
Publications	$ 9,720.00	$ 158.95	64,958.30	896.58	75,733.83
Newspaper Service	7,236.00	112.15	2,255.82		9,603.97
Clubs	6,216.00	215.85			6,431.85
Conservation Congress		6,066.81	2,222.40		8,289.21
Exhibits	20,065.38	6,392.05	5,443.50	1,478.60	33,379.53
Schools	12,972.00	3,045.05	1,420.27	8.40	17,445.72
T. V.—Radio	6,396.00	648.17	4,544.64	3,129.90	14,718.71
Visual Aids	20,004.00	2,894.36	10,855.01	914.60	34,667.97
Administration	8,436.00	527.80	696.47		9,660.27
	$ 91,045.38 *	$ 20,061.19 *	$ 92,396.41 *	$ 6,428.08 *	$ 209,931.06 *
TOTAL FORESTRY OPERATIONS	$2,513,695.22	$189,268.24	$ 641,320.12	$ 216,444.95	$ 3,560,728.53
WATER POLLUTION COMMITTEE			$ 17,777.73		$ 17,777.73
SOUTHERN WISCONSIN FORESTS					
Big Foot Beach	$ 12,280.82	$ 44.13	$ 4,253.14	$ 2,248.24	$ 18,826.33
High Cliff	8,086.72		592.55	2,096.52	10,775.79
Northern Purchase Unit	67,315.50	127.92	11,350.32	19,455.63	98,249.37
Point Beach	20,481.00	22.26	4,000.84	3,236.83	27,740.93
Southern Purchase Unit	37,269.85	292.17	4,062.24	2,794.41	44,418.67
Administration	14,716.00	1,116.85	13,956.15	746.11	30,535.11
	$ 160,149.89 *	$ 1,603.33 *	$ 38,215.24 *	$ 30,577.74 *	$ 230,546.20 *
KETTLE MORAINE LAND				$ 60,324.70	$ 60,324.70
COUNTY FOREST AID			$ 217,707.13		$ 217,707.13
RETIREMENT, ETC., FORESTRY					
Social Security			$ 55,671.91		$ 55,671.91
Unemployment Compensation			82,075.49		82,075.49
Wisconsin Retirement			130,776.83		130,776.83
Workmens Compensation Awards			1,937.70		1,937.70
Group Life Insurance Board			2,886.64		2,886.64
TOTAL RETIREMENT, ETC., FORESTRY	*	*	$ 273,348.57 *	*	$ 273,348.57 *

CONSERVATION FUND DISBURSEMENTS—(Continued)

	Personal Services	*Travel Expense*	*Materials, Services and Supplies*	*Capital Outlay*	*Total 1957–1958 Disbursements*
PH AND FG—SPORTSMENS LICENSES					
NWA			$ 3,540.39		$ 3,540.39
NEA			5,342.51		5,342.51
WCA			11,403.27	$ 6,392.00	$ 17,795.27
ECA			12,474.43	2,302.38	14,776.81
SA			24,433.88	7,537.00	31,970.88
P–R Land Acquisition				174,322.12	174,322.12
D–J Land Acquisition				9,512.30	9,512.30
TOTAL PH AND FG—SPORTSMENS LICENSES	*	*	$ 57,194.48 *	$ 200,065.80 *	$ 257,260.28 *
FEDERAL AID—SOIL BANK					
Nursery Transfers from Forestry	$ 100,000.00	$ 388.44	$ 118,486.03	$ 38,597.78	$ 257,472.25
Nursery Transfers from Reforestation			2,568.83	122,689.60	125,258.43
Forest Management Transfers from Forestry	65,186.70	17,001.56			82,188.26
TOTAL FEDERAL AID—SOIL BANK	$ 165,186.70 *	$ 17,390.00 *	$ 121,054.86 *	$ 161,287.38 *	$ 464,918.94 *
DAMAGE CLAIMS			$ 984.50		$ 984.50
CANCELLED DRAFTS			$ 361.29		$ 361.29
INSURANCE LOSS			$ 2,153.26	$ 862.20	$ 3,015.46
GRAND TOTAL—CONSERVATION FUND	$6,530,109.80	$772,295.54	$2,924,111.86	$1,195,072.42	$11,421,589.62

CONSERVATION DEPARTMENT DISBURSEMENTS

General Fund

	Personal Services	*Travel Expense*	*Materials Services and Supplies*	*Capital Outlay*	*Total 1957-1958 Disbursements*
GENERAL FUND—LAPSING					
Forest Crop Severance Tax	$	$	$ 9,126.10	$	$ 9,126.10
Forest Crop Withdrawal			344.84		344.84
	*	*	$ 9,470.94*	*	$ 9,470.94*
Forest Crop Administration	4,769.74*	*	*	*	4,769.74*
Forest Crop Aid	*	*	248,903.64*	*	248,903.64*
TOTAL LAPSING FUNDS	$4,769.74		$258,374.58		$263,144.32
GENERAL FUND—NON-LAPSING					
Capital Improvements—					
State Parks					
Brunet Island			$ 13,813.95		$ 13,813.95
Devil's Lake			37,057.53		37,057.53
First Capitol			291.80		291.80
Governor Dodge			61,849.37		61,849.37
Interstate			2,970.09		2,970.09
Lucius Woods			9,274.47		9,274.47
Merrick			1,191.90		1,191.90
Pattison			7,737.20		7,737.20
Peninsula			906.02		906.02
Potawatomi			1,636.50		1,636.50
Rib Mountain			56,564.53		56,564.53
Terry Andrae			7,690.54		7,690.54
Tower Hill			340.86		340.86
Wildcat Mountain			1,127.25		1,127.25
Wyalusing			9,219.76		9,219.76
Big Foot Beach			225.83		225.83
TOTAL STATE PARKS	*	*	$211,897.60*	*	$211,897.60*
GOVERNOR DODGE STATE PARK	*	*	$ 7,331.13*	$ 2,668.87*	$ 10,000.00*
GIFTS AND DONATIONS	*	*	*	1,850.00*	1,850.00*
TOTAL NON-LAPSING FUNDS			$219,228.73	$ 4,518.87	$223,747.60
TOTAL GENERAL FUND	$4,769.74		$477,603.31	$ 4,518.87	$486,891.92

CONSERVATION DEPARTMENT DISBURSEMENTS

Reforestation Fund

	Personal Services	*Travel Expense*	*Materials Services and Supplies*	*Capital Outlay*	*Total 1957-1958 Disbursements*
FORESTRY ACTIVITIES—REFORESTATION					
Land Acquisition			$ 3.60	$38,920.65	$ 38,924.25
State Aid			31,342.19		31,342.19
Investment Expense			9.24		9.24
Nursery Transfers from Forestry			94.49	4,361.99	4,456.48
Nursery Transfers from Soil Bank				382.79	382.79
Toumey Nursery			14,965.20		14,965.20
TOTAL REFORESTATION	*	*	$ 46,414.72*	$43,665.43*	$ 90,080.15*

CONSERVATION DEPARTMENT DISBURSEMENTS

Warden Pension Fund

	Personal Services	*Travel Expense*	*Materials Services and Supplies*	*Capital Outlay*	*Total 1957-1958 Disbursements*
WARDEN PENSION FUND			$ 58,864.48		$ 58,864.48
	*	*	$ 58,864.48*	*	$ 58,864.48*