

THE HISTORY OF THE ORGANIZATION

Landmark Dates for the Department of Natural Resources
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1837 Michigan statehood. Establishment of the Office of Geological Survey.

1859 Michigan law closes season on deer, turkey, woodcock and partridge during breeding periods. The fine for violation was \$5.00. A series of laws extending protection to other animals and fish followed over the next several years.

1873 State Board of Fish Commissioners is established.

1887 Michigan becomes first State to appoint a paid State Game Warden, William Alden Smith. By 1922 there would be 180 full-time game wardens working for the State.

1895 The State acquires Mackinac Island from the Federal Government, and creates the first State Park.

1895 Michigan requires the purchase of a license (\$0.50) to hunt deer with a firearm.

1899 Creation of the Forestry Commission, with goals to preserve, protect, and restore Michigan's forests.

1909 Public Domain Commission is established, absorbing the State Land Office and the Forestry Commission.

1913 The Game Fund is established by the Legislature (P.A. 108).

1915 The Anglers Fund is created (P.A. 263), revenue is from non-resident fees collected from non-residents.

1921 Department of Conservation is established (P.A. 17), uniting all duties related to conservation and protection of natural resources in one organization. In the same Public Act, the Conservation Commission was created to oversee the Department.

The organizational structure of the Department originally consisted of nine Divisions: Forest Fire Control, Game Protection and Propagation, Fish Cultural Operations, Predatory Animal Control, Public Lands, State Parks, and Education. John Baird was the Department's first Director.

1923 Forest Fire Law is enacted.

1923 Game Fund and Anglers Fund are merged (P.A. 110), creating the Game and Fish Fund.

1925 Pollution Control Division is added to Department.

1925 Commercial Forest Act is enacted, requiring a permit to cut forest products.

1928 Game Wardens are renamed "Conservation Officers", and get uniforms.

1929 In response to public demand for less political influence, Public Act 23 is enacted, staggering the appointment of Conservation Commissioners. The law also requires that two of the seven Commissioners be from the Upper Peninsula.

1929 Enactment of Water Resources Act.

1929 Residents are required to purchase license for trout fishing by the Michigan Sport Fishing Law (P.A. 165).

1929 Game Law is passed (P.A. 286) regulating a number of activities related to collection and possession of wild animals.

1933 General Rod License Bill requires residents to purchase licenses for sport fishing of any and all species.

1933 Federal Government establishes Civilian Conservation Corps (CCC). Under the supervision of the Department of Conservation, CCC workers construct or improve 1,400 acres of State Park land, reforest 134,000 acres, installed thousands of waterwells for forest fighting, and assisted the Department in many other program areas.

1937 Pittman-Robertson Wildlife Restoration Act is enacted by Congress. Revenue is generated by fees on ammunition, and granted to states (as a 75 percent matching fund) for game restoration programs.

1939 Supervisor of Wells Act enacted (P.A. 61), to regulate and issue permits for oil and gas drilling activities.

1942-45 Impact of war is felt by Department.

Annual State Park attendance, as well as purchase of hunting and fishing licenses, drop by 25 percent. Conversely, copper and iron mining, oil and gas drilling, and harvesting of timber all increased dramatically as the products of these industries were needed for the war effort.

1945-48 Responding to various Departmental problems, Director P. J. Hoffmaster has the organization studied by Professor Floyd Reeves of the University of Chicago. Controversy over the recommendations, as well as the preferences of the Director and the various Commissions, continued for three years. Finally, in 1948, the reorganization took place. Supervision of Field staff was decentralized and the Regional Offices, which had included Law and Forest Fire Protection staff since the 1930's, were expanded to include staff from Fish, Game, Forestry, State Parks, and

Recreation Divisions. Regional Managers were appointed.

1948 Federal Water Pollution Control Act enacted.

1955 Federal Clean Air Act enacted.

1960 In response to rapid increases in public demands for parks, Legislature approves a \$10.0 million revenue Bond program to improve and expand the State Park system. The bonds were to be paid by income from annual and daily park user fees.

1963-64 A citizen's committee, appointed by Governor Romney, conducts a study of the Department and presents recommendations for change. The Department was again reorganized in 1964. Authority was further decentralized to Field staff, and the Regional Offices were consolidated into a single, separate branch of the organization, with its own Deputy Director. The "Staff-Line Matrix" style of management was adopted.

1965 The Executive Reorganization Act (P.A. 380) transfers five commissions to the Department of Conservation: State Waterways Commission, Water Resources Commission, Michigan Tourist Council, Mackinac Island State Park Commission, and the Boating Control Commission.

1968 The enactment of P.A. 353 creates the Department of Natural Resources and transfers all duties from the Department of Conservation.

1969 Enactment of Federal National Environmental Policy Act.

1970 The first "Earth Day" is held; the event acts as a catalyst to bring many factions together into the new "Environmental Movement." Public awareness increases followed by demands for government actions.

1970 Enactment of the Environmental Protection Act (P.A. 127).

1971 Federal Environmental Protection Agency organized. Over the next several years, Congress passes numerous acts and amendments to acts related to environmental concerns. Many of these laws increased both funding and responsibilities for states.

1973 Governor Milliken issues Executive Orders 1973-2 and 2a, transferring all environmental programs in the Department of Public Health to the Department of Natural Resources, including sewage system maintenance and certification, solid waste disposal, and licensing of septic tank cleaners. Watershed management and drain code were transferred from the Department of Agriculture.

The Water Resources Commission and the Air Pollution Control Commission were changed from Type I to Type II transfers, making both subordinate to the Natural Resources Commission.

Lastly, the Executive Order divided the Department into two branches; natural resources and environmental protection, each with its own Deputy and its own funding.

1974 Resource Recovery Act enacted (P.A. 366).

1975 Director Howard Tanner, with the Natural Resources Commission approval, appoints a committee of 12 Department employees to study the organization and make recommendations for change.

1976 Executive Order 1976-8 implements reorganization. As recommended by the committee, the two branch system is eliminated. Several Bureaus are created to manage the Divisions and Offices. Contrary to the committee's recommendations, Regional Offices were limited in authority, and the Department returned to a "straight line" management style.

1976 Enactment of the Kammer Recreational Land Trust Fund Act (P.A. 204).

1978 Enactment of Solid Waste Management Act (P.A. 641).

1979 Enactment of Hazardous Waste Management Act (P.A. 64).

1979 Enactment of Goemaere-Anderson Wetland Protection Act (P.A. 203).

1980 Enactment of the Federal Comprehensive Environmental Response Compensation and Liability Act (Superfund).

1981 Budget cuts result in the elimination of 750 positions.

1982 Enactment of Environmental Response Act (P.A. 307).

1985 Enactment of the Michigan Natural Resources Trust Fund Act (P.A. 101).

1987 Enactment of Waste Minimization Act (P.A. 245).

1988 Quality of Life Bonds approved by the voters to provide money for environmental protection and recreation projects (P.A. 326, 327, 328, 329).

1990 Enactment of Disposal of Batteries Act (P.A. 20).

1990 Enactment of Scrap Tire Regulatory Act (P.A. 133).

1990 Enactment of "Polluters Pay" legislation (P.A. 233, 234).

1993 Enactment of Clean Air Act Amendments (P.A. 6).

1993 Executive Order 1991-31 reorganized and created a new Department of Natural Resources; unanimously adopted by the Michigan Supreme Court on September 2, 1993.

1994 Creation of State Parks Endowment Fund (P.A. 79).

1994 75th Anniversary of the Michigan State Parks System.

1994 Centennial of Michigan's first established firearm deer hunting season (safest season on record).

1994 Creation of the Michigan Civilian Conservation Corps Endowment Fund (P.A. 394)

1994 Creation of the Orphan Well Fund (P.A. 308)

1994 Enactment of the Natural Resources and Environmental Protection Act (P.A. 451)

1995 Mackinac Island State Park Centennial

1995 Swamp Tax Payments Reduced From \$2.50 Per Acre to \$2.00 Per Acre (P.A. 43)

1995 Governor Engler issued Executive Order 1995-18 creating the Department of Environmental Quality (splitting the Department of Natural Resources)

1996 75th Anniversary of the Department

1996 20th Anniversary of the Michigan Natural Resources Trust Fund

1997 Statewide early retirement legislation results in 212.0 Department employees retiring during the spring of 1997.

1997 Enactment of P.A. 585 of 1996 restructuring the fishing and hunting license fees.

1997 Establishment of the Office of Information and Education as a result of the Hunting and Fishing Heritage Task Force Recommendations report.

1998 Construction of "Pocket Park" at State Fair grounds.

Historical Narrative

The Early Years

Before Michigan was organized as a territory in 1805, it was a wilderness with a multitude of wildlife, vast waterways, and abundant forests. When early settlers came here to carve out their homesteads, the notion of "inexhaustible supply" of resources was common in the minds of those wielding the ax, bagging the fish and game, and taking, in general, all that the land had to offer.

Realization of the need for conservation of natural resources came slowly in this land of plenty. The first conservation step was taken in 1837 when Michigan became the nation's 26th state. The 15th law on the statute books was one providing for a complete geological, topographical, botanical and zoological survey. Creation of the Geological Survey was the first attempt to catalog the state's natural resources to find out just what their status was.

The first Fish Commission was appointed in 1873, and the first state hatchery was built at Crystal Springs near Pokagon the same year. Because little was known about the habits of fish and the methods of artificial propagation in these pioneer days of fish culture, early attempts at fish planting were trial and error.

In 1887, the first salaried game warden in the United States was appointed in Michigan. Game wardens at this time were primarily woods policemen and believed that the tougher they were in making arrests the further they would get in making the public conscious of early conservation laws.

Awareness of the need for conserving timber came much later, and it was not until 1899 that the first Forestry Commission was created. Before the earliest attempts at commercial cutting began in the 1830s, it was estimated Michigan forests had enough lumber for 500 years of logging. Inside of 60 short years, the vast forests of white pine had been leveled.

An attempt was made to coordinate these scattered activities when the Public Domain Commission was formed in 1909. This commission was given power and jurisdiction over and management and disposition of all public lands, forest reserves and forestry interests, all interests of the state in connection with stream protection and control and forest fire protection.

In the early days of the Public Domain Commission there was some discussion of developing forest reserves for use as state parks but the idea was tabled. It was not until 1919 that the parks system was inaugurated by Public Act 218.

Then early in 1921, as part of a general reorganization of state government, the Michigan Legislature enacted, and Governor Alexander J. Groesbeck signed into law, Public Act 17 which combined all these separate commissions into a single Department of Conservation. There was no fanfare in the he press and little public notice. Quite simply, the name was changed over the door of the old Public Domain Commission offices and the new commissioners went to work.

The Land Nobody Wanted

Not long after the last logger had departed Michigan came ever hopeful farmers to plow the once forested land in order to develop it into productive cropland.

Honest – and some dishonest – promoters convinced thousands of pioneers into buying or homesteading these lands. Many who had worked in the logging camps settled down among the stumps and tried to grow a living as farmers.

But the northern sandy soils that supported forest growth would not support row-crop farming. Some farms on better soils did survive, but most failed. When we entered the 1930s, northern Michigan was a land of stump vistas and empty farmsteads—the land of broken dreams. As the Great Depression of the 1930s deepened across the nation, fewer and fewer of those who had lived on the land were able to pay their taxes, and as they moved away the state had to take back the "worthless lands."

Fortunately, some far-sighted state leaders had set up plans for reforestation of those lands long before most reverted to state ownership. Although Michigan had created its first state forest reserves in 1903, opened the Higgins Lake State Nursery in 1904 and began hand-planting little trees by the millions, for every acre reforested in this way, many more acres "came back." Therefore, acreage of abandoned, deforested and idle land continued to increase year after year.

It was finally understood that much of the land could not be made permanently productive in private ownership, but could be made useful as wild land if kept in public ownership and developed properly. Out of these lands, the Conservation Department established game refuges and public hunting grounds, improved trout streams and sought to develop these lands into recreational centers. The lands nobody wanted are now the lands everybody can use.

The CCC

In 1933, President Franklin D. Roosevelt conceived and created what would become the single most productive conservation effort in our history—the Civilian Conservation Corps. Spurred by unemployment brought on by the Depression, the Emergency Conservation Work Program was established in March 1933, and the CCC was born.

The Department of Labor estimated there were four million unemployed men and women in the nation in the 15-25 age group. Further, in the 17-23 year group—ages that would make the core of the CCC program—a study showed that more than 50 percent had less than two months' actual work experience.

The purpose of the program was to employ young men to serve in the "construction, maintenance and carrying out of works of a public nature relating to forestation of land, prevention of forest fires, floods and soil erosion, and maintenance or repair of paths, trails and fire lanes." In its later years, the CCC undertook more sophisticated projects such as making land boundaries and performing some of the first lake and stream improvements in the state, and many public campgrounds regularly used these days might never have been constructed had it not been for the CCC.

The Michigan CCC was formed on October 22, 1933, at Higgins Lake. Before the CCC ended its work, more than 504 bridges were built, 221 buildings erected, 33 landing strips built, 5,600 miles of roads constructed, 140,000 man-days spent fighting fires, 1,481 acres of public campgrounds developed and 134,000 acres of trees planted.

Forty-two camps or "tent cities" were set up in Michigan, scattered throughout the Upper and Northern Lower Peninsulas. Each camp was about 200 men in size and governed by Army Reserve officers. The men worked five days, 40 hours per week. On weekends, "enrollees" generally were free of duties and most headed for nearby towns.

The trouble was, nobody had much money. Pay was \$26 a month, but \$20 or \$22 of that typically went home to the enrollee's family. By and large, though, there were enough pastimes. Baseball and football leagues were started, each camp had a small library and visitors from the outside were welcome most of the time.

Building projects completed by the CCC included a fire experimentation state near Roscommon, the Pigeon River Country State Forest Headquarters and the Ralph A. MacMullan Conference Center at Higgins Lake. They also built some big bridges, two in particular, spanning the Muskegon and the Manistique rivers. They built Reedsburg Dam, and these, remember, were

mostly men with little skill or experience in such work.

Law Enforcement in the Early Years

Perhaps more than any other employee, it is the conservation officer who best personifies the Department of Natural Resources. Many persons who know nothing of DNR's other functions are familiar with the friendly man or woman in the green uniform who can respond to inquiries that run the gamut of Department programs.

The early game wardens gave no thought to public relations. They were only "woods cops" whose job was to catch somebody breaking the law – and the public resented them. Changing the title to conservation officer in 1925 was a big step forward. A new era of emphasis on education began in 1927; and when the officers began to wear uniforms in 1928, they gained in prestige.

The first conservation officer training school was held at the Pigeon River forest headquarters in 1935.

Patrol Boat No. 1 - 1929

For 30 years, Cap. Allers and his boat, Patrol Boat No. 1, were symbols of the law of conservation on the Great Lakes. In 1928, the multi-million dollar commercial fishing industry needed controls. Nearly six million pounds of lake trout and five million pounds of whitefish were being taken annually from Michigan's Great Lakes waters.

Allers designed the boat, even helped pick the keel sticks out of the woods near Caro. Built in Bay City, she was a heavy-weather tug, 75 feet long, 80 gross tons, with special gear for hauling in fish-laden nets.

In August 1929, Patrol Boat No. 1 made her maiden trip to Isle Royale with Allers at the wheel. Over the next 30 years, the man and the boat sailed more than 500,000 miles, and in the course of their work, confiscated enough illegal gill nets to reach from the Straits of Mackinac to Chicago, and back.

Birth of a State Park

"Sometime in 1943 or 1944 an axe will bite into the snowy sapwood of a giant maple. Then the giant will lean, groan and crash to the earth: the last tree of the last virgin hardwood forest of any size in the Lake States."

Conservationist Aldo Leopold penned this epitaph for the primeval forests of the Porcupine Mountains in June 1942. Certain the midwest's last hardwood wilderness would be sacrificed for the war effort, Leopold had joined a citizen's movement that wanted to preserve this last sample of the "Great Uncut," without jeopardizing wartime priorities.

The Save-the-Porcupine Mountains Association had been started two years earlier by Raymond Dick, and Ironwood produce dealer, and Ed Johnson, editor of the Ironwood Globe, helped by their longtime friend Ben East who was outdoor editor for the Booth Newspapers.

For years, Dick had dreamed of preserving the virgin wilderness of those mountains. Johnson and East persuaded Dick to send out 1,000 letters to individuals and conservation groups from coast to coast. All but knocked off his feet by the country-wide financial response, Dick gathered his forces and drove ahead.

He took P.J. Hoffmaster, Director of Conservation, to the mouth of the Carp River to see for himself. If had been Hoffmaster's belief that one of his department's foremost obligations was to provide the people of Michigan with an adequate system of outdoor playgrounds. The Porcupines fit into that idea in a special way, and Ray Dick won a powerful ally. Then with the backing of the Conservation Commission, Hoffmaster sent Gov. Harry Kelly a report recommending that 46,000 acres be purchased as a roadless park and forest museum, "in order that what happened to Michigan's pine may not also happen to the last of our hardwood."

About that time Ray Dick invited Gov. Kelly to take a look. Kelly, a handicapped veteran of World War I, went only as far as the mouth of the Presque Isle River. But that was enough to convince him. "This has to be kept," he told Dick.

The Governor called a special session of the legislature and asked for an appropriation of \$1 million to make the purchase. The bill passed.

P.J. Hoffmaster died in 1951, Ray Dick in 1953. Years later, Ben East wrote that a small bronze table should be put up on a granite boulder at the mouth of the Carp River. The inscription, he wrote, ought to read about like this:

"This plaque is placed here by friends of Raymond Dick and P.J. Hoffmaster, to honor the memory of two men who loved these mountains and saw in them an opportunity to preserve an unspoiled fragment of the wild America that had disappeared so rapidly in their lifetimes."

Fifty-one years after its 1945 dedication, the 60,000 acre Porcupine Mountains Wilderness State Park is the largest in Michigan's State Park system. Noted for its hiking trails, scenic vistas and striking geologic formations, the outstanding feature remains the 35,000 acres of old-growth hardwood forest it was originally dedicated to preserve.

On a September afternoon in 1994, park rangers set down a bronze marker near the mouth of the Carp, not far from the spot suggested by Ben East a quarter-century ago.

Forest Fire

Few states suffered more from forest fires than did Michigan in the late 1800s. These devastating fires turned millions of acres to ashes, wiped out entire towns and villages, leaving thousands homeless, and claimed hundreds of lives. In 1871, two million acres were destroyed by fire. In 1908, more than two million acres were again scorched by fire.

As recently as the 1930s, Michigan was still losing an average of 125,000 acres of forest per year to fire. Our methods were modern (for those days), but we had few machines and depended mostly on the sweat and courage of huge crews of men armed with shovels and back-pack water units.

All that began to change with the nation's first forest fire experiment station built at Roscommon in 1929, and Michigan has been the leader in forest fire equipment development ever since. Not only has the number of fires been reduced dramatically, there also has been an even greater decline in the average number of acres burned by fire. In recent years, that average has been below 10 acres per fire.

Forest fire fighting is a science, a science to which men of the Conservation Department have made unique contributions. Portable well-drilling units allowed fire fighters quick access to water. The first time an airplane was used for forest fire control was in 1933. The pilot dropped written notes in a weighted bag to fire crews on the ground. Radios in planes came along about 1940. One plow and tractor unit could clear as much fire line as 100 men using shovels and axes.

Forest Management

A new forest has virtually replaced the millions of barren acres that sprawled out to Michigan's horizons after the big timber was cut. Today, a healthy, growing forest of more than 19.3 million acres provides wildlife habitat, beauty, recreation and a forest products industry that contributes more than \$12 billion to Michigan's economy each year. The supply of growing stock is the highest in the nation with 2.6 trees planted to every one harvested.

Education

At a time when motion pictures were still new as an ordinary means of education, a film loan service was instituted by the Department's Education Division in 1929 with five silent, black and white films. Two reels of sound film were produced in 1937, and beginning in 1941 all new pictures were filmed in color. By 1943, the Department's film list had increased to 31 titles.

The Sportsman's Guide, a weekly radio broadcast featuring Mort Neff, made its debut in 1942. Sixteen stations across the state carried the 15-minute program. Neff is shown interviewing a conservation officer and sportsman in August 1949.

Thoroughly acquainted with the meaning and intent of all conservation laws, rules and regulations, conservation officers frequently were asked to do radio interviews.

On January 16, 1954, Michigan Conservation premiered on WKAR-TV, the Michigan State College Station, in East Lansing. The 15-minute television program, which showed the opening of the ice fishing season that year, was seen only by viewers of the single station. A year-and-a-half later, the program, produced by Chuck Floyd, was aired on 14 stations in Michigan, Ohio, Wisconsin

and Ontario, and was seen by a million viewers each week.

1952 Deer Season

The amazing thing about the Michigan deer herd is its enormous resiliency, fertility and capacity for growth. We have hunted this herd steadily and fairly hard throughout this century, yet it keeps coming back stronger than ever.

Such facts were perhaps no more in question than in 1952 when, following 20 years of controversy, Michigan liberalized its deer hunting regulations. For the first time in modern state history, hunters were allowed to take any deer they saw in the northern Lower Peninsula during the last three days of the season. Until then, they had been restricted to taking only antlered bucks; any thought of shooting "those beautiful spotted fawns and the big brown-eyed does" was frowned upon. In fact, it simply was not done.

But that fall a total of 162,000 bucks, does and fawns (including 95,810 antlerless deer) were taken—nearly three times the normal fall total. That was such a shocking total it was clear to nearly everyone that our herd had been wiped out. Absolutely wiped out.

It touched off one of the loudest, longest, hottest controversies in the history of hunting in our state. An avalanche of angry letters poured into the Conservation Department, some with bricks attached, some literally signed in blood. Newspaper editorials statewide added to the prevailing mood of public outrage.

Despite the accusations and abuse sounded against them, the Conservation Commission and the department stood their ground; convinced that management of a deer herd or any other natural resource cannot be based on anything but the best scientific research available, no matter how deep the sentiment or how heated the emotion of opposing forces.

Then somewhere in Michigan in the fall of 1962, a hunter pulled a trigger or a bow string to drop the one-millionth whitetail taken since the opening of the 1952 deer season. That animal, with or without antlers, symbolized a decade in game management the like of which may never be experienced again. It was at once a refutation of the argument of those who 10 years earlier said

the last days of Michigan deer hunting faced a most difficult test.

Today, of course, we know that our deer herd is healthy, and that it lives on a much better managed range. As a result, Michigan continues to lead the nation in the number of days of deer hunting recreation.

The rapid growth of the deer herd resulted in a diminishing amount of available winter food per deer, which caused widespread starvation.

Deeryards became death traps. Lowered fawn production and small antler size demonstrated the need for an increased annual harvest.

Protection for Hawks and Owls

Michigan, through a law that went into effect August 13, 1954, became the second state in the nation to give all hawks and owls complete closed-season protection. The law was sponsored by the Michigan Audubon Society, which had urged protection of hawks and owls since 1935. Previously, only bald eagles and ospreys had been given full protection.

Although the Conservation Department did not actively support the measure, game biologist Donald W. Douglass frequently was asked why should an agency charged with keeping game populations at a high level see any good in a law to protect predatory birds. After all, didn't these predators eat rabbits and other small game animals?

The answer, Douglass wrote, "is not to be found in an account book where dollars and cents or pounds of game are the tally units. In Nature's ledger, we must believe, all living things are listed on the credit side. Until we have learned to understand Nature's method of accounting, we had best refrain from messing up her bookkeeping with our own inadequate system."

Bounties: A Flagrant Waste

For many years, sportsmen's license money was used to pay bounties on bobcats taken in the Upper Peninsula and on all foxes and coyotes taken statewide, because people thought it would cut down the number of these predators. Fewer predators, in turn, would mean more pheasants,

rabbits, snowshoe hares, grouse and deer for hunters.

Between 1935 and 1963, Michigan had paid out nearly \$3.5 million in bounties. Conservation Director Gerald E. Eddy called it a flagrant waste and said this money, which could have been put to a much better use, had been poured down a rathole.

And despite the mounting evidence from study after study that bounties were a plain waste of money, another 1.5 million of hunting license dollars would go down that rathole before the bounty on coyotes was finally repealed in 1980.

Sea Lamprey

When the sea lamprey entered the Great Lakes through the Welland Canal in about 1921, conditions were ideal for its explosive increase. Lake trout were in abundance and their habits matched those of sea lamprey admirably. During the 1930s and early 1940s, the lamprey spread throughout Lake Huron and Michigan, and this parasite virtually wiped out the lake trout, whitefish and other species by sucking their blood from wounds made by rasping teeth. This single catastrophe nearly collapsed most commercial fishing operations on the Great Lakes, and by the mid-'50s, it was clear that all lake trout fishing even in Lake Superior would collapse within a short time.

The 15-year fight by Canada and the United States to control the sea lamprey was a saga of heroic proportions. It began at an abandoned Coast Guard station on Hammond Bay east of Cheboygan. In 1951, the U.S. Fish and Wildlife Service had turned the station into a field laboratory, and Dr. Vernon C. Applegate, who had studied the lamprey at length during the 1940s, went to work in search of a chemical that would selectively kill the lamprey without harming other fish.

Applegate and his assistant, John H. Howell, worked for six years and screened 6,000 chemicals before locating one which would do the job.

After initial tests of the chemical which would kill lamprey larvae in streams proved highly successful, the Fish and Wildlife Service and Canadian fisheries officials mounted a full-scale attack on lampreys in Lake Superior in the spring

of 1958. Within eight years lamprey numbers in Lake Superior had dropped by 80 percent, and similar results appeared certain on Lake Michigan. The battle to control the sea lamprey had been won.

Alewives

After the sea lamprey had become established in the upper Great Lakes, an opportunist appeared to take advantage of the lack of predator control that the lake trout and burbot and provided. This was the alewife, a small non-predatory fish that following 1955 exploded into a situation of super-abundance.

By 1966 the alewife made up about 90 percent of all fish, by weight, in Lakes Michigan and Huron. It had become so numerous that it posed a serious threat to the survival of all species spawning within the Great Lakes. Subject to periodic dieoffs, anyone who visited our Great Lakes shorelines in the 1960s will remember seeing hundreds of these fish lying dead along the shore. The smell was nearly overwhelming.

The dieoff of 1967 littered Great Lakes beaches with an estimated 200 million pounds of tiny rotting fish and resulted in an estimated \$55 million loss to the Michigan tourist industry.

The solution was to put all possible harvest pressure on the alewife. Although the commercial alewife fishery in Lake Michigan was harvesting nearly 30 million pounds of alewives each year, fisheries managers believed a better solution was to promote sport fish that would eat the alewives. And they believed the best chance for success would be through the introduction of so-called anadromous predators, such as the coho salmon.

Urban Sprawl

The urban revolution that had spread like wildfire across the United States in the 1960s, finally ignited here in Michigan in the summer of 1967. As government leaders struggled to find solutions to the seemingly insurmountable problems facing the major cities of America, the Department of Conservation entered the arena of urban recreation for the first time.

Previously, the bulk of Michigan's recreation developments had been largely oriented toward needs of people reared in and geared to country life. Now, the emphasis shifted toward satisfying

the growing public demand for more city parks, more green acres, more recreation facilities and more hiking and riding trails for city-bound people. The first of several recreation bond proposals, approved by voters in 1968, would help us learn to play again.

Gone fishing

In the mid-1950s Michigan sold more fishing licenses than any other state. The number peaked in 1954, when close to 1.2 million were sold. But over the next 10 years, 300,000 fishermen switched to other sports.

The main reason was a decline in the quality of fishing in our inland lakes and streams. Fishermen also found they had to compete with speed boats and water skiers. Many waters suffered from pollution as well. On the Great Lakes, the sea lamprey had done its dirty work. Lake trout were all but gone, and shore and pier fishing for perch was declining rapidly. For sportsfishermen, there wasn't much worth catching in those 38,000 square miles of open water.

That began to change in 1965, when two men set along to revive Great Lakes sportfishing in this state. Dr. Wayne A. Tody, then chief of the fisheries division, and Dr. Howard A. Tanner, a fisheries biologist who later became DNR director, believed the Great Lakes represented the greatest undeveloped opportunity anywhere to develop a premier sport fishery where none existed.

In the fall of 1965, the Department obtained one million salmon eggs from the west coast. The young cohos were raised in Michigan hatcheries and planted as four-to-six-inch fingerlings in the spring of 1966. Within three months, several of the fish measuring more than 15 inches and weighing up to two pounds had been caught in nets in Lake Michigan. Their growth rate was almost unbelievable.

Under natural conditions, the Pacific coho migrates downstream to the ocean, grows to maturity and returns to the stream of his birth to spawn and die, completing a three-year life cycle. The majority of the first cohos planted in Michigan streams would either be caught in the Great Lakes during the summer of 1967, or return later that fall as three-year-old adults.

Throughout the summer of 1967, no one knew what to expect if the coho salmon started to return,

as it was rumored they might. The Lake Michigan salmon fishery happened dramatically on Labor Day weekend, September 1-3, 1967.

Coho salmon were suddenly begin caught in sizes and numbers that had Michigan fishermen shaking their heads in disbelief. Motels, restaurants, gas stations, tackle shops and other related businesses in western Michigan were caught unprepared. The fall fishery from Manistee to Empire in Lake Michigan was compared to a gold rush.

Picture the weary gas station owner filling gas tanks in cars and boats almost around the clock, who reports business is up 600 percent. Picture bait shops out of bait and tackle bins empty. Picture one angler paying another angler \$10 for one much-used, silver-colored fishing plug, simply because it or anything like it was unavailable anywhere within 50 miles.

Picture a man driving up to a launching ramp near Frankfort with a 12-foot bluegill boat fastened to the top of his car. After a long look at the surf and waves out in Lake Michigan, he hops back in his car and drives off. An hour later he'd back, this time towing a spanking new 18-foot boat on a trailer, with a 40-horse outboard attached, all right off the showroom floor at a total cost of around \$2,500.

Restaurants opened earlier and closed later. Bars were jammed. Additional launching ramps and parking lots were hurriedly bulldozed into use. A charter boat industry popped into existence, almost overnight.

One town got mad at another town for claiming the title "Coho Capital." Motels in the area, normally dull stuff after Labor Day, kept "No Vacancy" signs blazing. Coho salmon had spawned the world's greatest fishin' hole. It was an angler's paradise.

Boating

By the end of the 1950s, Michigan was suffering from a severe case of boating happiness. The number of outboard motors in use across the nation had nearly doubled from 3.2 million in 1952 to 6.3 million, and more than half a million boats and two million boaters were using Michigan waters each year.

But the number of boaters and motors does not tell the whole story. In the early '50s, the average outboard motor was nine horsepower. By 1963, the average had increased to more than 30 horsepower, and 20 percent of all motors sold were 45 horsepower or larger. And the boats themselves were getting bigger. Twenty percent of all registered boats were now more than 16 feet in length.

Our inland lakes and waterways were getting pretty crowded, and the fact that many towns and townships had local motorboat regulations added to the problem. It was not until the Federal Boating Law of 1958 came about that things began to move in Michigan. Extensive hearings and investigations were held, and finally, in 1962, a state law was passed that provided for uniform registration of boats, methods of reporting accidents and other aspects of safety and operation controls.

83 Snug Harbors

We need only to look at a map of Michigan to see how we are bountifully blessed with water resources. It was in recognition of the inherent magnetism these waters have for boaters that the Conservation Department established a progressive program of land-buying, dock and ramp building and general improvements, just so boaters could have fun.

Although most of the Department's early efforts were concentrated on creating fishing sites on streams and inland lakes, a sister agency was concentrating on providing boating facilities on the Great Lakes.

In 1947, the legislature created the Michigan Waterways Commission and granted it authority and supporting funds to work with the federal government in creating a marine highway along the 3,000 miles of Great Lakes shoreline. This marine highway was to take the form of harbors of refuge located at approximately 30 mile intervals from one end of the state to the other, enabling thousands of boaters to encircle Michigan using safe harbors to encircle Michigan using safe harbors and overnight hospitality.

From 1947 to 1964 the Waterways Commission helped plan and provided funds for 83 harbors of refuge. These publicly owned facilities can accommodate 4,723 boats at any given time.

In 1966, when the new state constitution went into effect, the Commission became part of the Department of Conservation.

Parks

"Too many people, not enough parks" was familiar refrain in the 1960s as higher wages and shorter work weeks created large amounts of free time for a growing number of leisure-seeking citizens. In 1964, state park staff issued 240,224 permits to camp and turned away for lack of space another 50,000 camping families, each of which averaged about four persons per family.

During the 1970s, attendance continued to increase, but the number of campers decreased by about 10 percent. Boat rental concessions and interpretive services were expanded to meet the needs of the growing number of day-use visitors.

Until the mid-1960s, public support for control of air and water pollution was not very strong. But several new laws soon carried Michigan to the forefront of environmental progress, culminating in 1973, when all environmental protection programs were transferred to the DNR.

DDT

Beginning in the fall of 1967, the Department of Natural Resources, under the leadership of Director Ralph MacMullan, began presentation of a series of department of policy positions which became known informally as "The Michigan Plan" for environmental survival.

The first effort was against the continued uncontrolled use of certain hard pesticides, principally DDT. Public support for this position was strong; following an 18-month campaign, on April 17, 1969, Michigan imposed a ban against most uses of DDT, becoming the first state in the nation to do so. Osprey populations are rebounding from historical lows in the 1960s. DDT was suspected as the cause.

Conservation on the Wing

Following World War II, the Department of Conservation established a "pocket-sized" airforce of three planes purchased solely for conservation activities. One pilot, a conservation officer, was assigned to each plane. Able to cover a vast area

in a short time, the planes proved valuable in law enforcement work and continued to play an important role in forest fire control. In addition, the planes were used for aerial surveys and mapping, photos for information and education programs and transporting department personnel.

By the early 1970s, the Department recognized the emerging conflict between personal rights and public values. With sufficient laws and technical know-how to implement sound approaches to deal with air and water pollution, many saw land use as the most urgent environmental issue of the day. Rapid population growth and uncontrolled development clearly had demonstrated the need for tougher laws to stop land and water abuses.

The Flood Plain Control Act (1968), the Natural Rivers Act and the Shorelands Protection Act (1970), the Inland Lakes and Streams Act (1972), the Farmland and Open Space Protection Act (1974), the Sand Dune Protection Act (1976) and the Wetland Protection Act (1979) formed a comprehensive land-use plan for Michigan.

Beyond these laws, the question of conflicting recreational uses prompted new statewide zoning laws that were needed to save our outdoors from public "overkill."

Michigan's 70-ton Steelhead, launched in 1968, was designed to be floating fisheries laboratory for studying the fish life of our Great Lakes. First used in 1942 for conducting population studies, electro-fishing is now one of several methods used for gathering eggs for stocking purposes. New technology in transporting fish has greatly improved planting success. A pump loads the fish onto the truck, which has special controls to maintain water temperature and add oxygen to the water.

Michigan's six fish hatcheries are an integral part of what is undoubtedly one of the nation's best-run sports fisheries. The Thompson hatchery in the Upper Peninsula was built in 1919. A modern \$3 million hatchery was brought on line there in 1978.