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AREA

SPORTSMAN'S GUIDE

QUABBIN

GOVERNMENT DOCUMENTS
COLLECTION

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METROPOLITAN DISTRICT COMMISSION

MASSACHUSETTS DIVISION
OF FISHERIES AND WILDLIFE

QUABBIN AREA
SPORTSMAN'S GUIDE
(2nd Edition)

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and Wildlife
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Directions to Winsor Dam and Quabbin Administration Building
and Picnic Areas

Take the Massachusetts Turnpike to Palmer exit, proceed north on Route 32 for about 8 miles to the intersection of Route 9 in the town of Ware; turn left and proceed west on Route 9 towards Belchertown for about 4 miles, take the M.D.C. road on the right leading to the Administration building.

Alternate Route - South of Quabbin

Take Route 9 west through Worcester, Brookfield, and Ware to the M.D.C. road about 4 miles west of the intersection of Routes 9 and 32 in Ware. Turn right to the Administration building.

Alternate Route - North of Quabbin

Take Route 2 to 202 south (towards Belchertown), continue for about 21 miles to the intersection with Route 9; proceed east on Route 9 towards Ware about 3 miles to the M.D.C. road on the left leading to the Administration building.

Quabbin Recreation and Camping Sites

Boat mooring areas have facilities for launching private boats and ample parking areas. All boats must be properly registered in compliance with the state laws.

The boat mooring areas are open on the following approximate schedule: 6 A.M. to 9 P.M. seven days a week, from the third Saturday in April through the third Sunday in October. There are boats and motors available to rent at each area, but none are reserved; therefore, if you are planning to rent a boat, it would be advisable to arrive as early as possible in the morning, especially during the first part of the season. (See sheet on boat rentals)

The reservoir has a fish population which includes lake trout, brown trout, rainbow trout, landlocked salmon, largemouth bass, smallmouth bass, pickerel, perch, and bullheads.

Boat Mooring Area 1, Gate 8, Pelham is considered a prime area for coldwater fish such as trout and salmon.

Boat Mooring Area 2, Gate 31, New Salem, provides a great variety of warm water fish in addition to trout and salmon.

Boat Mooring Area 3, Gate 43, Hardwick, is a prime area for bass, trout, and salmon.

Pottapaug Pond, Gate 43, on the north side of the horseshoe dam has chain pickerel, largemouth bass, and a variety of warm water fish.

Boat Moorings and Rentals

Boat mooring areas are open from 6 A.M. to 9 P.M. seven days a week from the third Saturday in April through the third Sunday in October. Each area offers boat and motor rentals, launching facilities for private boats and adequate space. All boats must be properly registered and be in compliance with state boating regulations. At least one person in each boat must hold a valid Massachusetts fishing permit. All boating must be in conjunction with fishing - the 1946 statute specifically prohibits boating for other purposes. Rental equipment cannot be reserved. If you wish to rent a boat, it is advisable to arrive early especially during the early part of the fishing season.

Skiffs are available at \$5.00/day or \$.85/hour. Motors are available at \$5.00/day or \$1.00/hour, combinations at \$10.00/day or \$1.85/hour. Gasoline is furnished with each motor rented. A parking fee of \$1.00 per day per car is charged those using shore facilities.

Private craft may be launched at any of the official launching sites. All such boats must be approved as seaworthy by the attending officer and all motors used must be 10 Hp. or less. Canoes are not available for rental at any site but may be launched at the Pottapaug area, Gate 43.

Access

For those not intending to launch boats, access to the reservation is available at all gates noted as legal entry points on the map. Such access must be on foot only and is legal at any time of the year although fishing is legal only during the season specified in the Abstract of Fish and Wildlife regulations and only in those areas indicated for shore fishing. In most cases, parking is available as cars may be pulled off to the side of the road near the gate. In no case may a vehicle impede entry to the gate.

All roads and access points are closed during "Deer Week," the first full week of December.

NOTE: NO FIRES ALLOWED AND ALL ALCOHOLIC BEVERAGES PROHIBITED

MDC Police Station located on second floor of Administration Building.
Rest rooms located at Quabbin Hill, near tower, and across the road from the Administration Building.

BAIT: It is permissible to use live bait.
Smelt bait is illegal from March 15 - May 15. At all other times it is legal.

Accommodations

Overnight accommodations and restaurants are available in the following areas:

Near Boat Mooring Area 1, Gate 8, University Motor Lodge, Amherst
Howard Johnson Motel, Hadley, Country Bell Motor Lodge, Hadley, plus
numerous other motels located in the Amherst area.

Near Boat Mooring Area 2, Gate 31, Quabbin Gateway Motel, Route 202,
Orange.

Near Boat Mooring Area 3, Gate 43, Ware Valley Motel, Route 9, Ware.

Camping and Picnicking

State parks in the area providing picnicking facilities include:

Skinner State Park	Route 47 in South Hadley
Chicopee State Park	Near Massachusetts Turnpike exit 6 (swimming & hunting)
Ludlow State Park	Ludlow via Plumbly Street and Tower Road
Petersham State Forest	Route 32, Petersham (fishing)
Lake Dennison State Park	Route 202, Winchendon (50 campsites \$3/day — boating, fishing, hunting, swimming)
Otter River State Forest	Route 202, Winchendon (118 campsites \$3/day — fishing, hunting, swimming)
Federation of Womens Clubs State Forest	Route 122, Petersham (fishing)
Erving State Forest	Route 2, Erving (28 camp sites \$2/day — fishing, boating, swimming, hunting)
Wendell State Forest	Wendell Road, Wendell (swimming, fishing, boating, hunting)

Private Camp Areas

The Ranch Campground, East River Street, Orange

Sunny Knoll Farm Campgrounds, Gilbertville/New Braintree Road, New Braintree

Lake Wyola Park, Star Route, Montague

A number of picnic sites are available at the south end of Quabbin.
Park at the Administration building or at other marked locations.

Primitive camping on a limited basis — permits issued at Massachusetts
Division of Fisheries and Wildlife Swift River Management Area by reservation
only.

History of Quabbin

Long before April 26, 1927, when the State Legislature approved an act to take the Swift River Valley and create the Quabbin Reservoir, there were rumblings of massive changes to come in the valley. By 1895 rumors were rife in the area and by 1921 the first survey was made to provide information which would serve in construction of the reservoir.

In connection with the construction, four towns, Enfield, Dana, Greenwich and Prescott, were wiped out of existence; thirty-six miles of state highway were relocated, and sixteen miles of the Boston and Albany Railroad tracks were abandoned. About 2,500 persons living in 650 houses in the area were required to find new homes. A cemetery, known as Quabbin Park Cemetery, was built in the Town of Ware and 7,561 bodies previously buried in 34 cemeteries in the area taken for the reservoir, were moved to the new cemetery which is fully maintained by the M.D.C. The simplicity and beauty of the cemetery befits the New England dignity of these former towns.

At the Metropolitan District Commission headquarters at Quabbin, records of the old towns are carefully kept on file. The Superintendent of Quabbin serves as town clerk for the four eradicated villages and still issues birth, death and marriage certificates, maintains roads, and serves as local police and fire department.

The Town of Enfield (population 1855 - 1936, 1935 - 495)

The former town of Enfield was located about one hundred miles west of Boston. Originally including Greenwich, it was at one time called "Quabbin", a name derived from the language of the Nipmucks and meaning "Many Waters".

Great Quabbin Mountain, rising five hundred feet above the floor of the valley and one thousand feet above sea level, was the principal elevation. Two branches of the river flowed through the village and supplied excellent water power for the mills. The soil was good, and most of the cleared area was arable producing better than average crops. The town was located between Greenwich and Belchertown, and was originally part of Narragansett Township Number Four.

The community was separated from Greenwich by statute in 1787, when the citizens found it too inconvenient to transact business and attend religious meetings in Greenwich. In 1816 the parish was incorporated as a separate township, deriving its name, Enfield, from Robert Field, one of the early settlers.

Little is known about the period before the town's first white settlers arrived. It was evidently a principal site of Nipmuck settlement. A dam was erected some time before 1770 by Ephraim Woodward, who later built a saw-mill at the site. In 1773, a grist mill was set up and the first clothing shop opened. A blacksmith shop and an oil mill were built soon afterward along with a fulling mill and cloth-dressing plant. Nails were made by hand after cutting the metal from iron plates by machine and in 1804 a carding machine, the first of its kind in this part of the country was built.

There was one hotel in Enfield called the "Swift River Hotel". This was used by travelers on the stagecoach to and from Boston. During the reservoir operations the hotel was used to serve meals to numerous state dignitaries who visited the Quabbin project. These were the last days that the hostelry was in use. Soon after the building was razed and the lumber sold.

While there were numerous small industries in Enfield there were two main concerns, the Swift River Company and the Minot Manufacturing Company.

The Swift River Company manufactured cotton goods; satinetts as well as cotton warps. Improvements made ten years later resulted in a change to fancy cassimeres. The company continued to make such goods until it was dissolved.

The Minot Manufacturing Company, established in 1825, also manufactured satinetts and carded wool.

The Town of Greenwich (population 1910 - 452, 1935 - 49)

Greenwich once comprised a huge area but part of it was taken in 1801 to form a section of Dana and fifteen years later another section was taken to establish Enfield. One hundred and ninety-nine years later, Greenwich lost the remainder of its land when the territory was taken by the State for construction of the Quabbin Reservoir.

The area had long, level tracts of fertile soil, which produced excellent cereals, but strangely enough no satisfactory wheat crop or grass. The streams provided ideal spots for summer camps, and hundreds of cottages dotted the surrounding territory in the latter years of the town. Most of the manufacturing in Greenwich took place in the village where excellent water power was provided for textile, grist and other mills. The first church in the Swift River Valley was erected on the Greenwich Plains in 1749.

The Athol Branch railroad passed through the town with a station at the Plains, and provided transportation for the town's industries. While the principal industry in the town was agriculture, many small plants existed during the nearly two centuries of the community's existence. Most were located in Greenwich Village where water power was abundant.

Among the earliest industries recorded was a saw and grist mill built in 1837 by a man named Holmes. In 1873 the braiding of hats became an active industry. This work was done principally in homes by women and children. Perhaps the major occupation was ice harvesting, as more than 100,000 tons of ice were shipped to Springfield, New Haven and New York each year. Greenwich also had a cranberry business; although supply was light, the owners made a sizable profit. In the latter years of the town, its biggest business during the summer months came from the hundreds of cottages and camps which dotted the many lakes, ponds and rivers in the area.

The Town of Dana

Dana lay at the junction of three counties. Located in Worcester County, it was bounded by Hampshire as well as Franklin County. Its business was

primarily with Worcester; its social life with residents who in great part lived in Hampshire County, while much of its education was received through Franklin County, principally from New Salem and its famous Academy.

A mill was erected about 1815 for the manufacture of pocketbooks. Some time later a tanning business was added to the plant. Some time after that palm-leaf hats were made in Dana. For the next half century this proved to be a most successful business, one which enabled the women of the village to take home quantities of the raw product, there to weave the hats by hand and return them to the plant for finishing operations. During the height of the palm leaf hat business, the sales spread throughout much of the world, especially to tropical countries where lightweight hats proved a special boon.

Another industry of consequence was the Swift River Box Company, established in 1890, which is now located in Athol. This company made lock-corner boxes used by the spice trade and also boxes for hardware and soap. Beverage boxes, as well as packing cases were added in 1931. Apple boxes constituted a large part of the business and good apple years might bring manufacturers in excess of \$200,000 annually.

During the final days of Dana, in 1938, the vally sang to the sounds of wreckers and razers. Wreckers were engaged in ripping down properties for salvage, while razers took buildings apart to rebuild them in new locations.

The final service held in North Dana Methodist Church took place on Easter Sunday, 1938. This marked the end of a century of service maintained by the Dana Methodists. Shortly after the service the church was razed and pulpit and pews were installed in a synagogue in Westfield, Mass.

The Town of Prescott (population 1910 - 320, 1935 - 18)

Prescott comprised a total of 12,700 acres; six miles in length and four and one-half miles in width. Today more than 500 acres of Prescott are covered by the waters of Quabbin Reservoir. One would have to travel a long way through the depths of Quabbin's waters to locate a specific landmark in the area where the inhabitants of Prescott once lived.

The soil was rocky, but yielded cereals and fruit as a result of the hard work of local farmers. The principal occupation of the Prescott residents was farming, however there were several grist mills. Saw mills turned out thousands of feet of lumber annually and there were a number of stores. Townspeople agreed early that it would be a waste of time and energy to wage what they knew would be a losing battle. They moved out leaving only a handful of voters to attend the final town meeting in 1927.

Creation of Quabbin Reservoir

Quabbin Reservoir was created in the Swift River Valley by erecting two large earth dams with concrete cut-off walls: the Winsor Dam and the Quabbin Dike. The Winsor Dam, named in memory of Frank E. Winsor, is 2,640 feet long, rises 170 feet above the bed of the river, and contains 4,000,000 cubic yards of earth fill. The Quabbin Dike, situated approximately three miles east of Winsor Dam, is 2,140 feet long, rises 135 feet above the bed of Old Beaver Brook and contains 2,500,000 cubic yards of fill.

Quabbin Reservoir impounds the run-off from 186 square miles of the Swift River watershed and from 98 square miles of the Ware River watershed. It has a capacity of 412 billion gallons. The reservoir is approximately 18 miles long with a water surface area of 38.6 square miles and a shore line of approximately 118 miles, not including the shore line of some 60 islands. The maximum depth of water in front of the dam is 150 feet and the average depth eight miles above the dam is approximately 90 feet. It is believed that this is one of the largest, if not the largest, reservoirs in the world constructed entirely for domestic water supply purposes.

The filling of Quabbin Reservoir was begun in August, 1939, and it was filled for the first time in June, 1946.

Water from the Quabbin Reservoir and aqueduct system flows by gravity or is pumped through MDC's distribution system to the water mains of the thirty-one municipalities which are members of the Metropolitan Water District.

Arlington	Marblehead	Revere
Belmont	Medford	Saugus
Boston	Melrose	Somerville
Brookline	Milton	Stoneham
Cambridge	Nahant	Swampscott
Chelsea	Needham	Wakefield
Everett	Newton	Waltham
Lexington	Norwood	Watertown
Lynnfield Water District	Peabody	Weston
Malden	Quincy	Winchester
		Winthrop

The City of Chicopee, South Hadley Fire District No. 1 and the Town of Wilbraham obtain all of their water supplies and the Towns of Clinton, Lancaster, Northborough, Southborough and Framingham and the City of Marlborough obtain a portion of their water supplies from the reservoirs and aqueducts of the Metropolitan District Commission. The City of Worcester maintains pumping facilities on the shore of the Wachusett Reservoir in West Boylston so that the City may purchase an emergency supply of water from the Commission when the City's water supply sources are inadequate to meet its demands.

Boston's Need for Water

During the years from 1870 to 1890, the situation relative to water supply to communities other than Boston became increasingly complex. Chelsea, Somerville, Everett, and Charlestown grew, and Boston annexed Roxbury, Dorchester and other adjacent communities. The progress of industrial and economic expansion which started in the 1840's resulted in busy mills and factories turning out innumerable articles, while an ever increasing flow of products from the Middle West created a busier Boston. From Boston harbor "Yankee Clippers" set sail and returned laden with silk, tea from China, spices from the Orient and goods from all other parts of the world.

Large numbers of immigrants arrived at Boston Port, some to establish new homes and to seek wealth in the fertile lands of the new territories opened by the railroads. Others remained to help in the mills, factories, and foundries, whose demand for labor seemed never to end.

By the end of this period of growth, the City of Boston was surrounded

by polluted rivers, filled with industrial wastes and the outlets from the main sewers in the city, as well as the wastes from other cities and towns bordering the streams.

To address this and related problems the Metropolitan District Commission was created in 1919 and asked for a report on how to increase the supply of clean water available to Boston, Worcester and surrounding communities. Thus, the stage was set for creation of what is now known as "Quabbin Reservoir".

Water Purification

Due to the high quality of the water impounded in the various reservoirs, and a strict enforcement of sanitary rules and regulations on the watersheds, it is unnecessary to maintain and operate expensive water-purification works. Water supplied to consumers in the Metropolitan Water District is treated with small amounts of chlorine and ammonia as it enters the distribution system. The Water Division of the Metropolitan District Commission maintains three laboratories — one at Quabbin Reservoir another in Framingham, and a third in Boston, where sanitary engineers and bacteriologists continually analyze samples of water taken from various watershed streams, reservoirs, aqueducts and water mains, in order that we may be assured that the water furnished consumers complies with U. S. Public Health standards.

Quabbin Valley Forest Resources

The forest resources of the Quabbin Valley yield between three and four million board feet of timber a year cut from the 119,000 acre watershed. Areas are cut only in accordance with the strictest conservation principles. Proceeds of the sales are used for management of the reservoir.

In addition to timber sales, the reservoir issues permits to occasional pulp wood operations and to a firm which manufactures guard rail posts.

The Quabbin Fishery

Fishing in Quabbin generally falls into two broad categories, coldwater and warmwater which characterizes roughly the requirements of different groups of fish. The salmonids such as lake trout, rainbow and brown trout, and landlocked salmon as well as their principle forage, smelt, are all examples of coldwater species. On the other hand the basses, pickerel, white and yellow perch, and bullheads are considered warmwater fish. The difference in groups relates not only to the best time of year to catch a particular species but also the type of habitat that fish prefer. A depth contour map of Quabbin readily shows that the majority of deep water in the open fishing zone occurs on Quabbin's West Branch side available to fishermen from Gate 8 (Fishing Area I) off Route 202 in Pelham. Because the water is shallower in Quabbin's Middle (Gate 31 - Area II) and East Branch (Gate 43 - Area III) sides, these areas are best for warmwater fishing. Gate 31 is accessible from Route 122 in New Salem, Gate 43 can be reached from 32A in Hardwick.

The trout species (including salmon) are caught readily from any gate, prior to Memorial Day weekend. At first the fish are concentrated around the mouths of brooks then, as surface waters warm, they work their way into deeper water. Rainbow trout are taken right at the surface through May and into the early part of June. Lake trout prefer cooler water temperatures and so tend to congregate near the bottom whether in 8 or 80 feet of water. During the summer and early fall, all trout are found in deep, cold waters. This requires a change in angling methods. Fishermen who change their style, successfully land trout throughout the fishing season.

By the middle of May the fishing for bass, white perch, and bullheads picks up especially on the Middle and East Branch side and fishing for these species as well as pickerel, yellow perch and largemouth bass continues through summer.

While serious trout fishermen continue to work the deep water available out of Gate 8 through the summer, others revert to warmwater fishing working the extensive shallows and islands on the East and Middle Branch areas (Gates 31 and 43) after largemouth bass, bullheads, and pickerel. Others concentrate on somewhat deeper water (15-30 feet) looking for white perch, generally near bottom, yellow perch, and if rocks and logs are present, smallmouth bass.

With the arrival of cooler surface waters by late September, the coldwater species, especially rainbow trout, become more active and are available again in shallow waters. Their catch generally shows an upswing during this latter part of the season. Although few people fish for bass at this time of year, serious fishermen often do quite well especially when fishing for largemouth.

History of Fish Management at Quabbin

At first, fish in the new reservoir found a seemingly endless and bountiful environment, enjoying the best of two worlds — plenty of food with no competition and little predation. Twelve to fourteen-inch yellow and white perch as well as three-pound pickerel and bass were common during the first years of fishing. However, it did not take long for reproduction and environmental change to create increased competition. The result was a radical change in the abundance of certain species.

The chain pickerel is the best example of how the stabilization of the water level affected the fishery. While the Quabbin was flooding over farmlands, the grasses and brush afforded pickerel excellent spawning habitat while the rich, inundated soils produced an abundance of food for the rapidly expanding population. In 1946, this water level stabilized, grasses vanished and suitable spawning habitat was restricted to a few shallow coves. For a few years afterward pickerel, hatched prior to stabilization, continued to provide excellent fishing but the great pickerel boom was over.

Yet, as is often the case within natural populations, one species' loss was another's gain. Once the abandoned fields and shallows were reduced to rock and rubble, the bronzeback was provided with vastly increased habitat. Today, more smallmouths are harvested than all other game species combined.

By the early '50s the large pickerel and perch that were abundant only a few years earlier were scarce and fishermen began to apply pressure for the extension of the shore fishing area and permission to use boats. During 1951 the Division of Fisheries and Wildlife, MDC, and the Department of Public Health conducted a survey on the recreational potential of the reservoir. A report was filed and in 1952 the reservoir was formally opened to boat fishing. The fishing extensions on Quabbin Reservoir provided Massachusetts anglers with a 66 percent increase in waters open to public fishing.

With this increase and the knowledge that the populations of native warmwater fish would neither utilize the reservoir to its full potential (approximately 70 percent of its volume is coldwater habitat) nor satisfy the demand of anglers, the Massachusetts Division of Fisheries and Wildlife initiated a fish management program.

It was decided to introduce two noncompetitive species that would use both the cold and warmwater habitat. The species chosen were walleye pike and lake trout. Once established, these fish would be able to sustain themselves naturally.

The first walleyes were introduced in 1953, and stocking continued through 1960. Results were disappointing. The walleyes did not enter the harvest until 1960, and since then only insignificant numbers have been creeled. The failure of the species to establish itself is attributed to competition by other warmwater fish, and the limiting effect of the slightly acid water.

In order to establish a lake trout fishery it was necessary to introduce smelt, which would inhabit the same waters and provide forage for the lakers throughout the year. Since their establishment in Quabbin, smelt have played a critical role in the success and failures of trout and salmon management.

In 1953 and 1954, 45,000 smelt were released. These fish thrived, and like the warmwater fish when the reservoir was filling, experienced a population boom in an under-utilized coldwater habitat with little predation. By 1958 many tributaries and shoal areas were supporting sizable smelt runs. Reproductive success was so great and predation by relatively few lake trout so low that young smelt clogged water-intake screens and flow meters. To solve this problem the MDC initiated a chemical smelt-control program in 1959. Spawning adults were seined and copper sulphate was applied to the deposited eggs. The smelt-control program was continued on a yearly basis.

In the absence of suitable forage, the trout fishery rapidly deteriorated, and angling pressure dropped sharply after 1966. Due to the many complaints voiced by fishermen and a desire to use the full potential of Quabbin, MDC advanced a proposal of smelt reintroduction, provided the Division agreed to study screen installation at intake structures and if necessary conduct a control program for the interim period.

In 1968, 100,000 adult smelt were released. In addition, 215 trays of fertile smelt eggs were placed in tributaries. By opening day, adult smelt were appearing in salmon and lake trout stomachs. During 1968, smelt comprised better than 55 percent of the salmon and lake trout diet. Growth rates increased and fish were attaining legal size one year earlier than they had when there were no smelt. During 1969 an additional 50,000 adult smelts and 146 trays were planted, with similar results. Since then no smelt have been released.

The first smelt runs occurred in four tributaries during 1970. By 1971 fish were spawning in 15 tributaries. It became necessary to control smelt in nine of those streams for fear that old problems would arise. Subsequent checks showed that further control was unnecessary, and rotating, self-cleaning screens at MDC intakes, have enabled the Division to dispense with future smelt control, allowing the small population to seek its natural level.

Lake Trout

Lakers were first stocked in 1952 with the release of 10,000 fingerlings. By 1957, 260,000 fingerlings, 18,000 yearlings, and 2,115 two-year-olds had been planted.

Lakers first appeared in the catch in 1956 when an estimated 200 sublegal fish averaging about a pound apiece were taken. Although they were availing themselves of the rapidly expanding smelt population, there was no evidence of successful reproduction.

To determine if any lake trout were reproducing, fingerlings were not planted between 1958 and 1962. Even though mature fish were present in the fall over suitable spawning habitat, the harvest of lakers decreased dramatically in the absence of fingerling plants. By 1962 it was believed the continued harvest of the species would depend upon maintenance stocking.

During 1963, 95,600 fingerlings were caught and released. These plants proved unnecessary because 1,007 sublegal lake trout were caught and released during 1963 compared to only 29 and 35 during 1961 and 1962 respectively. Scale analysis showed these fish to be two years old, thus indicating that natural reproduction had occurred during 1961. These fish entered the legal harvest during 1964 and contributed to a five-fold increase in the number of lake trout harvested in 1965.

It is indeed unfortunate that, just as the lake trout were becoming firmly established, the smelt control program was eliminating their food supply. Trout growth rates declined rapidly, and where it had taken four years for a laker to reach legal length, it now took five. Stomach analysis indicated that lake trout had begun feeding on yellow perch and fallfish in the absence of smelt.

In addition to the smelt losses, the reservoir itself was put under severe strain because of drought conditions. By 1965 spawning areas used by lakers in 1964 were ten feet above the water level! And sites chosen by early spawners that year were out of water by late November. The drought continued and the effect on subsequent reproduction was evident. It was hoped that the re-introduction of smelt in 1968 and the stocking of 22,800 fingerling lake trout in May of 1969 would bolster the fishery. By 1969 increased growth rates were attributed to the presence of smelt although the harvest was still declining due to the lack of sufficient recruitment in the mid '60s. During 1970-71, 166,500 fingerlings were stocked, and by May 1972 an additional 50,000 fingerlings of a deep-water-spawning strain from New York's Seneca and Cayuga Lakes were released. The 1973 catch approximately equalled that of 1972 while the number of sub-legals increased.

Early in 1973 the water level in the reservoir rose substantially. Former habitat was reflooded. The number of lake trout in the harvest rose significantly.

Brown and Rainbow Trout

In 1957, it looked as though the hatcheries would have to compensate for the lack of natural lake trout production, so an experiment testing the capabilities of brook, brown and rainbow trout was conducted. One thousand two-year-olds of each species were stocked. Returns from these releases were: 66.2 percent brookies, 22.6 percent browns and 36.1 percent rainbows. The second year these fish returned: 0 percent brookies, 10.2 percent browns, and 14.4 percent rainbows.

From 1957 through 1964, 87,500 rainbows and 209,500 browns were stocked. Marked lots indicated that two-year-old brown trout provided the most to the harvest, while yearling rainbows contributed more than yearling browns. Since hatchery production was necessary to maintain brown and rainbow trout populations, and landlocked salmon were being sustained in New Hampshire and Maine through stockings of spring yearlings, a study was initiated to evaluate Quabbin's suitability for salmon. To minimize competition for limited forage, rainbow and brown trout stockings were terminated in 1965.

With the reintroduction of smelt in 1968, and the potential for improved fishing, the Massachusetts Division of Fisheries and Wildlife decided to stock two-year-old rainbows which would not be as competitive with the yearling salmon as brown trout.

Since 1969, rainbows have been stocked and after 1974 browns too were restocked.

Landlocked Salmon

During the late '50s and early '60s New Hampshire and Maine experimented with landlocked salmon and reported that plants of yearlings at two fish per surface acre were sufficient to maintain a notable salmon fishery in selected large lakes.

The Quabbin salmon program began with an initial stocking of 14,420 spring yearlings. The allotment fell far short of the 30,000 to 50,000 recommended for the reservoir, but there were no other fish available. These fish averaged 7.5 inches when they were released. Sample catches of sublegal fish throughout the summer indicated excellent growth and salmon caught incidentally with lake trout during fall nettings were averaging a foot.

To date, over 130,000 yearling salmon have been planted. Their return rate is similar to that reported from northern New England salmon lakes. Creel census and scale analysis show that a great majority of the legal salmon taken are two-year fish averaging a shade under two pounds.

Under the present circumstances, one might well ask, what is the future of salmon in Quabbin? The picture is really not as bleak as it may appear. Salmon, unlike walleyes, thrive and grow rapidly.

With new techniques in salmon culture it should not be too much longer before Massachusetts' Division of Fisheries and Wildlife is able to release yearling salmon that are approximately the size of yearling trout. These fish should provide excellent returns -- the type of salmon fishing that is often dreamed of but is out of reach for the majority of Massachusetts anglers.

Wildlife in the Quabbin

In many ways the Quabbin Reservation is ideal for wildlife. It's vast size and relative freedom from human disturbance make it a refuge unequalled by any other in the Commonwealth. Although visitors may walk most of the abandoned roads and trails, motorized vehicles are limited to a few roads at the southern end of the reservoir. The Prescott Peninsula is closed to visitors. Entry for research is only by special permit. An additional feature, attractive to wildlife, is the great variety of habitat within the reservation. Here there are open fields, shrubby areas, moist seeps, wet meadows and woodlands, and all types of forest. And the area is constantly changing. Beaver are the prime engineers of change and there are many on the reservation. In building their dams, the beaver create ponds — many of them in woodlands. The flooded trees die attracting insects which in turn attract woodpeckers, and which serve as food for many birds, fish, and amphibians. The woodpeckers create cavities which subsequently become nesting places for wood ducks and hooded mergansers, owls, squirrels, and raccoons. The pond itself becomes a habitat for insects and micro-organisms that require water, and for the animals that feed on those tiny plants and animals. Fish, frogs, salamanders, turtles, and snakes are drawn to the area and they, in turn, attract wading birds. In time, the decaying trees fall and the pond gradually changes into a marshy area with open and emergent vegetation. Muskrats move into the area and associated with them, mink that prey on muskrats. Over thousands of years the marsh fills in and eventually the area becomes an open meadow — used by deer, rabbits, fieldmice and their associated predators — bobcats, foxes, and birds of prey.

Elsewhere windstorms or infestations of insects may open pockets within the forest. Fallen trees provide escape cover; standing ones provide nest and den holes. Sunlight reaching the ground encourages growth of small plants and shrubs at a level animals can reach. When food is plentiful, animals are drawn to that area. Natural succession continues and vegetation grows from field to forest and is set back time and again all over the reservation.

In addition to beaver, muskrat, and mink, visitors may come across otters along the banks of ponds and at the edges of the reservoir. In dry upland areas there are chipmunks, red and gray squirrels, snowshoe hare and both eastern and New England cottontails. The woods and old stone walls afford protection to a variety of weasels as they stalk their prey. The forest is home to an abundance of raccoons and to tree-gnawing porcupines. Occasionally a visitor may come across a red or grey fox or even an eastern coyote. There are fisher too, their numbers increasing as the forest matures — and for the extremely silent and sharp-eyed there is the hope of catching sight of one of the Quabbin's secretive bobcats.

The reservoir itself attracts a wide variety of waterfowl, many nesting, others in migratory passage. Wood ducks, and black ducks are common and even the rarely seen hooded merganser is relatively abundant. Green-winged teal and common mergansers, while not common also nest in the area. Few Canada geese nest on the reservation but they are plentiful

during migration when large flocks of passing birds settle on the reservoir en route to southern wintering areas. Other common migrants include scaup, goldeneye, ring-necked ducks, and snow geese. Loons are rare at the Quabbin but during the last few years there have been successful nestings. They are sensitive to disturbance and may increase in the Quabbin reservation because of the availability of secluded areas. Other birds that seek out Quabbin because of the seclusion it affords include bald and golden eagles.

Bald eagles traditionally nest along the Maine coast and in southern Canada but in recent years a number of birds have been observed wintering at Quabbin. The eagles are easily disturbed and abandon an area readily if they are bothered or approached too closely. The magnificent birds soar over the reservoir where they feed on fish. When the reservoir is frozen they depend heavily on other animals for food but return to fish as soon as open water re-appears. Occasionally observers may see the eagles in flight from the Enfield lookout tower. Visitors are cautioned, however, not to try to approach the birds as this may cause them to leave the area.

Golden eagles are comparative newcomers to Quabbin. To date there have been few documented sightings but it is known that two golden eagles were present at Quabbin during the last few winters. Like bald eagles, golden eagles may be watched from lookout points but should not be approached.

Other raptors (birds of prey) also find Quabbin to their liking. During the day visitors may observe red-tailed and red-shouldered hawks, broad-winged and rough legged hawks, goshawks, marsh hawks, ospreys, and gliding turkey vultures. At night their hunting grounds are taken over by owls; great-horned owls, barred owls, saw-whet and screech owls.

Peregrine falcons, once common in Massachusetts but now endangered, pass through Quabbin on their migratory passage and the Commonwealth's only other resident falcon, the kestrel, is found there in abundance.

Quabbin has also been the focus of Division efforts to re-introduce the wild turkey to its erstwhile home. In 1960 Division biologists re-introduced turkeys to the Prescott Peninsula -- the most secluded section of Quabbin. Since that time the birds have multiplied and spread to other parts of the reservation where they are occasionally seen by visitors. Other upland game birds sharing the area with the turkey are woodcock and ruffed grouse.

Most visitors come to Quabbin to watch the smaller species. Because of Quabbin's vegetational variety there is something for everybody and almost all of the common species of Massachusetts have been recorded here at sometime or other. In addition to the most common species, sharp-eyed birders may find red-headed and pileated woodpeckers, Canada jays, black-billed cuckoos, northern shrikes, and eastern bluebirds. Some 16 types of tiny colorful warbler have been recorded on the area. Birds requiring specialized habitat, such as the blue-gray gnatcatcher which nests in dense mature oak woods, or the pine warbler which nests only in large white pines, find suitable habitat on the reservation. The areas change in plant composition and maturity but as one passes beyond usefulness, another is growing into it. At any time the wildlife can find some area that provides suitable food and cover. Most important there is plenty of space and freedom from human disturbance. For wildlife this is the major attraction of Quabbin.

Foot Trails Around the Quabbin Reservoir Park Area

Summit Trail

This trail starts at Quabbin Hill Lookout, south of Quabbin Tower and ends at Winsor Memorial. The trail is gentle and provides some fine views. The last 1500 feet, however, are steep. A side trail branches off the Summit trail about 1500 feet from the trail-head. A left turn off Martindale Trail (called Cove Trail) leads through an old "borrow" pit — and old gravel pit. To return from the memorial to the lookout start at the east side of the parking lot. Go right to an open field, following a beaten road through the field and watching for yellow marks on trees or signs pointing to Martindale Trail. Follow to Summit Trail and return to the point of departure. Distance 1.9 miles.

Powers Trail

Starts at east side of parking lot and ends at a dirt road. To get back to summit go right 2250' to open field on right. Follow road through field a short distance and watch for yellow marks on trees, or sign to Martindale Trail. Follow this trail to Summit Trail. Distance 1.9 miles.

Cove Trail

Begin at Winsor Memorial turn right at the road. Continue along the road 1/4 mile and turn left. From here the trail passes through the borrow pit, through a plantation of red pines established in the early 40's by work crews from MDC. A little over 1/4 mile from the borrow pit an old road veers to the right. Follow the road 50-75 feet. Look for yellow blazes on trees. Return through the borrow pit continue about 1/4 mile and bear left to the Summit Trail, continue left to return to Winsor Memorial. Distance 1.3 miles.

Martindale Trail

Starts at the old Martindale Farm off Webster Road. Follow yellow blazes on trees until trail intersects with the Summit Trail. Go right to Summit, left to Winsor Memorial. One can return to the farm via Cove Trail (marked) by following the road that crosses the power line. Distance approximately 1 mile.

Woods Trail

Begins on east side of parking lot, and goes through the Scout camp. The trail continues along a straight dirt road until it reaches a hardtopped road. Turn left to return to the parking lot. Distance 1.3 miles.

Hanks Place Trail

Begins at Enfield Lookout. The trail follows a dirt road to the shore. From there, turn right and follow yellow marks on the trees crossing the hardtopped road and passing through the barway. Continue a little over 1/2 mile along an old dirt road to Powers Trail. Distance 1.8 miles.

Bald Mountain Trail

This 1000 foot trail begins just south of the rotary on the road to Quabbin tower. Reaching to the summit of Bald Mountain it provides an excellent view of the reservoir and the administrations buildings.

Beaver Pond Road

Start at barway on right of Quabbin Dike Power Road. The trail skirts a beaver pond and leads to a dam. Distance 3000 feet.

Pepper Mill Loop Trail

Begins at barway on right 500 feet north of Route 9. This trail skirts a pond and crosses the brook at a beaver dam, terminating at Route 9 below the pond. Distance 1.1 miles.

Metropolitan District Commission Quabbin Reservoir Park

Massachusetts Division of Fisheries and Wildlife Areas

The Charles L. McLaughlin Trout Hatchery owned and operated by the Massachusetts Division of Fisheries and Wildlife is situated less than two miles from Quabbin's main gate on Route 9. The hatchery is open to visitors from 9-4 seven days a week. Trout are highly prized by most anglers but while Massachusetts has many streams and ponds, few are suitable for rearing trout. Most are too warm, too muddy, or too heavily populated with other fish. A few streams and ponds have suitable habitat but lack the proper sort of spawning or nursery grounds. The Division's hatcheries help to remedy this lack by providing a supply of young trout for fishing and to supplement the natural population. There are five hatcheries in the state. McLaughlin is the newest and most modern. Built in 1968, the hatchery can raise up to 200,000 lbs. of trout each year -- about 450,000 fish.

These fish begin as the offspring of brood stock fish selected for their rapid growth, resistance to disease and attractive appearance. Eggs from the female fish and sperm from the male are mixed in pans and laid, one layer deep, in sterilized trays. At first they are placed in fiberglass troughs. When they outgrow the troughs they are transferred into one of the 22 concrete nursery tanks within the hatchery building. Water for these nursery operations comes from three deep gravel-packed wells that put out 500, 100 and 600 gallons per minute. The water emerges at 48° F year round. At the intake point the temperature is adjusted to suit the needs of the fry. In time the fry become fingerlings and are transferred to outside facilities which consist of 200 8x50 foot concrete raceways. As the trout grow their diet is changed from a dry fish mash to fish pellets. Feeding schedules are determined by the size of the fish and the rate at which they use their food. In addition, visitors may feed trout with pellets which they can obtain from an on-site vending machine. Water for these fish comes from the wells but is mixed with water from the nearby Swift River.

Rainbow, brown, and brook trout are raised here. All three are stocked throughout the state -- each in the type of habitat best suited to it. The area between the raceways is fully paved enabling trucks to drive along the beds. These trucks provide mechanized feeding. Later on, when the fish are deemed ready for release, specially equipped trucks are stationed at the head of each bed and the fish are deposited in a tank of specially aerated water in which they are transported to the release sites. The Division stocks more than 700 streams and ponds with yearling and two-year old fish in spring and many are restocked during the fall. This ensures excellent fishing throughout the entire fishing year. At the time of release the fish are about 9" long and weigh $1\frac{1}{3}$ - $1\frac{1}{2}$ lb. Once in open waters the fish may grow to as much as 5 lbs.

During 1976-77 the Division experimented with a novel way to extend the hatchery and relieve the pressure on the facility. Young rainbow trout were stocked directly into the Quabbin in a large net which was supported by flotation devices. These fish were fed by a dispenser which released food at predetermined intervals. As they approached $7\frac{1}{2}$ - 9" the fish were

released into the reservoir to become part of the regular fish population. The experiment proved successful in reducing the amount of handling to which stocked fish are subject and provided much needed "extra" hatchery space raising the possibility that it may be repeated as seems appropriate to the MDC and the hatchery staff.

A display tank at the entrance to the hatchery contains a number of full-sized fish for the benefit of visitors. Visit the hatchery and spend some pleasant hours watching more fish than you'll see anywhere else in the Eastern United States.

The Swift River Wildlife Management Area lies adjacent to the McLaughlin Fish Hatchery on Route 9. This area consists of 1400 acres of public lands in the townships of Belchertown and Ware. Here, at the southern end of the Quabbin Reservoir, water from the reservoir's 60 ft. depths are drawn off into a channel and the Swift River, interrupted by Quabbin, continues its flow. The cold water allows excellent trout fishing all year round and a small boat access site at Cold Spring Street plus numerous other access points along the river, make the area a fisherman's delight. The portion of the area between the Quabbin dam and Swift River outlet Route 9 is reserved for fly-fishing only.

The bulk of the Swift River Wildlife Management area, to the west of East Street, consists of rolling fields and woodlands laced with trails. A high point in the "upper field" includes a scenic lookout which, on a clear day, provides an overview of many miles of surrounding country. To be appreciated fully this view should be seen at all four seasons as it provides an excellent study in the changes and contrasts in the New England landscape.

This area is prime wildlife habitat. Numerous natural beaver flowages create conditions that favor many other wildlife species. Experimental aspen cuttings have been tried to improve the habitat for ruffed grouse. Because of the abundance and diversity of wildlife, the University of Massachusetts uses the area for studies and field trips as does the Massachusetts Junior Conservation Camp whose groups use the areas woodlands as an extended classroom. Hunters, fishermen, and trappers use the area heavily and at designated times the grounds are used by groups involved with bird dog, retriever trials and coon dog training. Individuals use the area for cross country skiing, birding, hiking, or just wandering and enjoying a day afield.

The headquarters building and grounds are open from 8-4 Monday through Friday.

QUABBIN RESERVOIR

Scale of miles

○ Road gate ---Dirt road
— FISHING AREA
--- ROAD

THE COMMONWEALTH OF MASSACHUSETTS

METROPOLITAN DISTRICT COMMISSION

Rules and Regulations for the Government and Use of Reservoirs, Roadways, Driveways, Bridges, Dams, and Land Within Watershed Reservations Under Care and Control of the Metropolitan District Commission (Promulgated Under General Laws, Chapter 92, Section 10 - 19)

1. Entrance on and exit from Watershed Reservations shall be made over designated areas only.
2. No person is allowed within any Watershed Reservation, except during specified hours, unless authorized by a written permit from the Commission.
3. All acts which pollute the water supply are prohibited. No litter or refuse of any sort may be thrown or left in or on any land or water within any Watershed Reservation. All persons within said Reservations shall use the sanitary facilities provided for public use.
4. All acts which injure the property of the Commonwealth are prohibited. No person shall injure, deface, destroy, remove or carry off any property, real or personal under the care and control of the M.D.C.
5. Cooking is prohibited and picnicking, except in designated areas, is prohibited within Watershed Reservations. Smoking is prohibited except in areas where it has been specifically authorized by the Commission.
6. No person shall wade or swim within any Reservoir. No person shall wade or swim in any reservation unless authorized by a posted sign or written permit by the Commission. Ball-playing and other sporting activities shall be allowed only at such times and in such areas as are designated therefor.
7. Persons sixteen years of age or over, who possess state fishing or sporting licenses and who possess a valid permit issued by the Commission, will be allowed to fish from shore at designated areas of Wachusett Reservoir, Sudbury Reservoir, and certain posted areas within Watershed Reservations. Fishermen shall not fish from boats, nor shall they enter the water wearing hip boots or waders.

SPECIAL REGULATIONS FOR QUABBIN RESERVOIR (RULE 8 THROUGH RULE 13)

8. Persons sixteen years of age or over, who possess state fishing or sporting licenses, will be allowed to fish from shore and from boats at Quabbin Reservoir, in areas (listed in the guide). Reasonable fees for the use of boats, for rental or outboard motors for fishing purposes, or use of Commission facilities including parking, may be charged by the Commission.
9. Persons permitted to fish from boats shall, at all times, be responsible for the sanitary conditions of the boats. Persons under sixteen years of age may not boat upon the Reservoir unless accompanied by a licensed adult.
10. Only clean rowboats of a minimum length of twelve feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motor boats, collapsible boats, or other similar craft, will be permitted in the water and no rowboats will be permitted in the water except in areas currently designated for boating by the Commission. Outboard motors shall have a rating of not more

than ten (10) horsepower. Boats less than 14 feet 6 inches in length will be limited to three occupants, and boats of that length and in excess thereof may be licensed to carry four occupants. No boat shall carry more than four occupants. All boats must carry an approved life preserver for each occupant. All boats using outboard motors must be equipped with an approved fire extinguisher and a set of oars and oar lock in satisfactory condition.

11. No person shall operate a motor boat at a speed other than reasonable and proper or in such a manner as to annoy or endanger the occupants of other boats.
 12. Boats shall not be placed in the water, except at designated mooring areas, and not until the fishing season is officially opened, or when the ice leaves the Reservoir, whichever is the later. All privately-owned boats, motors and other equipment must be removed from the property of the Commission each day.
 13. Boats shall not leave the mooring areas before dawn, and must return at a time posted at each mooring area. The beaching of boats at any point, except at the designated mooring areas is strictly prohibited, except in the case of extreme emergency.
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14. Any violation of Rules Seven through Thirteen will be deemed sufficient cause for revocation of fishing privileges for a period of time not to exceed the current fishing season. The M.D.C. and its employees are not responsible for any damage to or loss of property sustained by fishermen, or for any injury or loss of life which may be incurred in connection with the public use of Reservoirs.
 15. Drunkenness, breach of the peace, profanity or other disorderly conduct offensive to the general public is strictly forbidden. Possession of, or drinking of alcoholic beverages is forbidden, except when authority has been granted by the Metropolitan District Commission in writing.
 16. No one shall drive a motor vehicle within any Watershed Reservation except upon roads authorized for such use. Motor vehicles shall be parked only in areas designated therefor. Operators of motor vehicles shall obey all regulatory signs unless otherwise directed by a Police Officer or person in charge. No person shall willfully obstruct the free passage of vehicles or persons within any Watershed Reservation. Authorized vehicles of the Commission, State or local authorities shall be allowed in Watershed Reservations.
 17. No person shall bring any animal within any Watershed Reservation, unless authorized by M.D.C. personnel in charge.
 18. The use of bicycles, snowmobiles, and other means of transportation shall be permitted only in areas set aside or authorized for such use.
 19. No person, except in an emergency, shall bring, land or cause to descend within any Watershed Reservation any airplane, except by written permit from the Commission.
 20. Parades, games, fairs, carnivals, bazaars, gifts or solicitations for raising or collecting funds shall not be permitted without written Commission approval.

21. Lotteries, raffles, gambling and games of chance are prohibited; and no person shall have possession of machinery, instruments or equipment of any kind for use in same Watershed Reservations.
22. Public assemblies of more than twenty-five (25) persons shall not be allowed without a written permit from the Commission.
23. No person shall engage in any business, sale or display of goods or wares without written permit from the Commission.
24. Commercial signs and advertising are prohibited in Watershed Reservations; other signs, notices, advertisements or leaflets of any kind may be temporarily displayed, but shall not be distributed or affixed without a written permit from the Commission.
25. No person, unless authorized by law or having a valid hunting permit, shall have possession of or discharge any weapon, firearm, firework, or other explosive.
26. No one may hunt, shoot or trap animals or birds within any Watershed Reservation, except with a written permit from the Commission.
27. All persons within Watershed Reservations shall obey the lawful directions of regulatory signs, Police Officers of persons in charge, or of Federal, State, or local wardens, rangers or enforcement officers.

ANY VIOLATION OF THESE RULES SHALL BE PUNISHABLE BY A FINE OF NOT MORE THAN FIVE HUNDRED DOLLARS (\$500.00) OR BY IMPRISONMENT NOT EXCEEDING ONE YEAR IN THE HOUSE OF CORRECTION, OR BOTH. (G.L. CHAPTER 92, SECTION 22)

January 1, 1972