Georgetown Lake Management Plan

March 6, 1970

Construction History and Description of Georgetown Lake

In 1894 the Bi-Metallic Mining Company of Philipsburg built a small dam on Flint Creek approximately 18 miles west of Anaconda, Montana. In 1900 or 1901 the Anaconda Copper Mining Company purchased this dam for winter water needs at their copper smelter in Anaconda. A powerhouse was constructed below the dam in 1901 to supplement the available power in the area. The impoundment was enlarged in 1919 by adding five feet to the dam and in the 1940's the dam was strengthened so the water level could be raised another three feet.

The above activities created an impoundment containing 30,570 acre-feet of water at 6,429.5 feet elevation with a surface area of 2,768 acres. Based on our latest measurements, the maximum depth is 38 feet. Only 10 percent of the lake is over 25 feet deep and the average depth is 11 feet. The shallowness of the lake results in excellent fish production. However, the shallowness and extensive aquatic weed beds coupled with the prolonged period of ice cover at this elevation leads to the possibility of oxygen depletion under the ice and, in turn, winterkill of fish.

A Brief History of Fish Stocking and Fishing

The Washoe Park Trout Hatchery (formerly called Anaconda Fish Hatchery) was completed in 1909. It planted grayling in Georgetown Lake in 1912 and cutthroat in 1913. Prior to this, the fishery consisted of native cutthroat trout from Flint Creek. Fish traps for collecting spawn were installed in Stewart Mill Creek and Flint Creek in 1919 and operated continually until the mid-1950's.

Various species of fish such as arctic grayling, lake whitefish, rainbow trout including steelhead variety, brook trout, several varieties of cutthroat trout, and possibly chinook and coho (silver) salmon were planted prior to 1937. In 1937 the lake was drawn below normal and winterkill greatly reduced the trout population. Prior to this, Georgetown Lake fishing was renowned, particularly for large cutthroat and moderate size grayling. Cutthroat four pounds and over were common.

Following the disasterous winter of 1937, sucker and redside shiner populations increased greatly and control measures were attempted and then abandoned. Heavy plantings of cutthroat fry and fingerlings were made during the next six years with unsatisfactory results. Then a program of planting larger fingerling trout was undertaken. Good fishing was reestablished. Apparently the larger trout fingerlings were needed to overcome competition and predation by nongame species. By the late 1940's fishing was again spectacular. Rainbow trout and coho salmon predominated the catch. Fish up to 12 pounds were creeled - the average was 4-5 pounds. (Coho salmon were probably planted in the lake in the 1920's. They were planted during the period 1946 through 1955 and more recently in 1967 and 1968.)

In the early 1950's the size of fish creeled became smaller apparently due to increased fishing pressure and harvest. Recalling the days of "lunker" cutthroat trout fishing, sportsmen insisted on a return to cutthroat plants. In 1955 and 1956 cutthroat were the only trout species planted. Because the cutthroat do not fight as spectacularly as the rainbow, both cutthroat and rainbow trout were planted from 1957 through 1961. A decline in interest in cutthroat by local sportsmen prompted us to abandon cutthroat stocking in the lake in 1962, and no cutthroat have been planted since. Kokanee probably reached the lake in 1954 either from Silver Lake or due to an unauthorized plant.

The present stocking program calls for 350,000 4- to 6-inch rainbow trout to be planted annually. These are planted promptly after the ice goes off the lake in spring to allow the fish to feed on the blooms of zooplankton (tiny weakly swimming animals) which occur at this time. The fish grow to catchable size by late fall.

The Present Fishery

According to our mail fishing pressure survey, Georgetown Lake sustains about 81,000 fishermen days per year. This is just under four percent of the total fishing pressure for the state and makes Georgetown the most heavily fished lake in Montana. At the same time, the winter catch rate is phenomenally high for lake or reservoir fishing. The catch rate this winter was 1.5 fish per hour. Over the past 10 years, the summer catch rate has varied from 0.4 to 0.8 fish per hour - still excellent for lake fishing. This winter 83 percent of the fish caught were rainbow trout and 14 percent were salmon (mostly kokanee). The balance were cutthroat trout, brook trout and grayling. Since there is very little, if any, rainbow trout reproduction in the lake, the fishery is largely based on hatchery plants. Data from creel censuses over the years are presented in Table 1.

Harvest Regulations - Past and Present

The first regulations on Georgetown provided for a limit of 25 fish or 25 pounds and one fish per fisherman. The limit was reduced to 15 fish or 10 pounds and one fish in 1930. Later it was reduced to 10 fish not to exceed 10 pounds and one fish, and in 1953 the commission ruled that 5 fish or 10 pounds and one fish would be the daily limit during the winter season. Limits then became less restrictive as more precise information of their effectiveness became available.

At present, the general statewide limits are in effect on Georgetown Lake. They theoretically permit a daily catch of 10 rainbow trout, cutthroat trout and grayling combined, plus 10 salmon and 10 pounds of brook trout. However, the average daily catch this winter was 6 gamefish, and only 12 percent of the fishermen (considering a person as a new fisherman each time contacted) creeled more than 10 gamefish. The limit for the 1970-71 winter season has been set at 10 pounds of all game fish combined plus one fish not to exceed 10 fish.

Other restrictions have been established to regulate the fishery. Several fish concentrating areas are closed to all fishing and fishing hours are in effect on both the summer and winter fishery.

BLE 1. Summary of Georgetown Lake creel census a

Year of study	Estimated number of fisherman days	Estimated hours fished	Estimated numbers of game fish harvested	Estimated weight of catch(pounds)	Percent of harvest by species[1] Rb	Ct	Eb	Gr	Salmon	Catch per hour	Ave. wt. (lbs) of predominant species[1]
Summer 1958	24,654	94,824	40,401	40,249	2.9	88.0	5.7	3.4		0.43	0.80 (Ct)
Winter 1958-1959 Sat., Sun., Legal holidays	17,974	83,369	70,252	42,125	5.0	89.6	5.4			0.84	0.59 (Ct)
Winter 1960-1961 Sat., Sun., Legal holidays	15,605	68,900	49,175	No est.	36.7	43.3	3.3	0.2	16.5	0.71	0.63 (Ct) 0.85 (Rb)
Summer 1961	30,390	108,916	50,353	No est.	60.5	34.3	3.7	0.7	0.8	0.4	- (Rb)
Summer 1962	44,500	174,500	83,000	No est.	69.9	24.0	4.7	0.1	1.3	0.48	- (Rb)
Winter 1962-1963	11,774	46,432	34,969	No est.	71.8	15.5	6.1	Tr.	6.7	0.75	0.77 (Rb)
Winter 1963-1964	10,041	41,206	22,560	20,839	80.9	6.2	6.9		8.7	0.55	1.01 (Rb)
Winter 1966-1967	12,329	42,420	58,675	No est.	89.4	<0.1	3.6	0	7.0	1.38	.68 (Rb)
Summer 1967(3 days in July)	129	519	406	No est.	90.4	1.2	3.9	0	4.4	.78	-
Winter 1967-1968 (partial)	No est.	No est.	No est.	No est.	87.4	<0.1	2.1	1.5	8.9	1.54	.68 (Rb)
Winter 1969-1970 Opening day only	1,047	4,315	7,929	No est.	80.0	Tr	1	1	18.0	1.84	- (Rb)

[1]Abbreviations: Rb=rainbow; Ct=cutthroat; Eb=brook trout; Gr=grayling; Salmon=kokanee and/or coho

Objectives - Past and Present

The Washoe Park Hatchery was created to manage Georgetown Lake for the production of trout eggs for the state hatchery system and provide recreational fishing. Spawn-taking operations were terminated in the 1950's and since that time all mamagement activities have been aimed at providing a sport fishery.

As indicated in the section entitled The Present Fishery, today's fishing in Georgetown Lake is excellent. Our management objective is to maintain this excellent fishing.

Management Plans

The three important elements of the Georgetown Lake fishery are species, rate of catch, and size of fish caught. Rainbow trout are the "bread and butter" species in this fishery. They are a favorite with anglers, grow well in the lake and are readily raised in hatcheries to the 4- to 6-inch planting size required for Georgetown Lake.

Rate of catch and size of fish caught are both related to how many trout are planted or, in other words, density of fish in the lake. The size of fish creeled is also determined by how long they stay in the lake before being caught. This depends on fishing pressure. The 11-inch, half-pound trout currently being caught is believed the minimum size the public would be satisfied with from so productive a lake.

Therefore, the management problem is to regulate the fishery to allow the maximum number to be caught, maintain a good rate of catch, and still maintain the 11-inch, half-pound size. Fishing pressure is increasing on Georgetown Lake as evidenced by several large Forest Service Campgrounds built on its shores in recent years. Ideally, fish planting should be heavy enough to maintain good catch rates in the face of heavy fishing pressure, but not so heavy as to seriously retard fish growth in the lake.

The present planting rate is considered optimal - i.e., the maximum number that can be planted consistent with good growth. With this at least tentatively established, additional management of the fishery must be based on regulating the harvest. Management measures should be founded on a knowledge of rate of return, size of fish being caught, and numbers taken in various seasons.

A creel census on the 1969-70 winter fishing season has just been completed and another is scheduled for this coming summer. Creel censuses intensive enough to allow estimates of total pressure and harvest should be conducted at least every six years. Creel surveys for determination of catch return, species composition of the catch and size of fish caught should be conducted summer and winter in alternate years.

Every five years sufficient netting, trapping, seining, etc., should be undertaken to determine trends in nongame fish populations. Also at this interval, limited water quality and habitat studies should be undertaken and recommendations made, if pertinent, on measures that would extend the lake's life as a trout producer.

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