

impact of the banon creek  
– silver creek–solly creek  
alternatives on recreational  
use of **silver lake**

COASTAL SECTION  
PLANNING DIVISION  
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VICTORIA, BRITISH COLUMBIA

PLANNING REPORT #48

IMPACT OF THE BANON CREEK - SILVER LAKE - SOLLY CREEK  
ALTERNATIVES ON RECREATIONAL USE OF SILVER LAKE

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## BACKGROUND

The Water Resources Service of the Department of Lands, Forests, and Water Resources submitted a proposal to the Environment and Land Use Committee to undertake a three-stage study for determining the quantity and quality of water supply available from alternate sources for the North Cowichan Municipality. The proposal was approved by the Committee who requested that Water Resources with the assistance of the Fish and Wildlife Branch, the Parks Branch, and the Department of Municipal Affairs, implement the studies.

Stage I of the proposal concerned the Banon Creek - Silver Lake - Solly Creek Alternatives. Essentially, these consist of increasing the storage capacity of the existing reservoir on Holyoak Lake and subsequently constructing a storage dam on Silver Lake. Water from Silver Lake would then be diverted to the south fork of Banon Creek where it would join the existing flow from the Holyoak Lake Reservoir; or alternatively, the Silver Lake water would be utilized in controlled releases to supplement low flows in the Chemainus River via Silver Creek and Solly Creek.

As part of feasibility studies concerned with the environmental aspects of this alternative, the Parks Branch has been requested by Water Resources to evaluate the potential impact on the recreational use of Silver Lake and adjacent land. The ensuing report consists of a discussion of past recreational use, the current situation regarding recreational use, and an evaluation of the potential impact on recreational use due to an implementation of the Banon Creek - Silver Lake - Solly Creek Alternatives.

### HISTORICAL RECREATIONAL USE

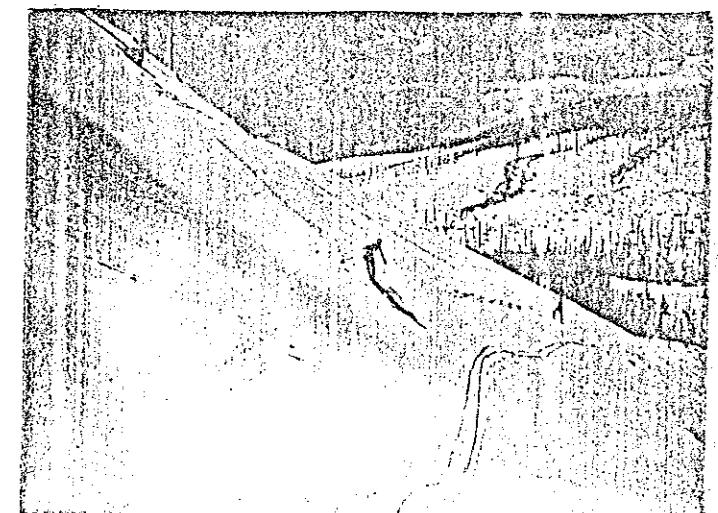
Recreational use of Silver Lake and adjacent lands goes back for a considerable period of time, dating mainly from the point when access roads of logging operations put the area within hiking distance for local residents and other individuals with knowledge of the area.

Principal activities appear to have been hiking, fishing, and hunting. A small log cabin on Silver Lake was constructed by fishermen in the early 1930's. Holyoak, Silver and the Brenton Lakes were stocked in 1938 and again, approximately 20 years later. In the late 1940's, the western and northern slopes of Mount Brenton were sought out for their ski potential.

As a result of their trips into the area southeast of Ladysmith, in 1949 the Outdoor Club of Victoria urged the then Parks Division of the Department of Lands and Forests to investigate the Mount Brenton Area (including Silver, Holyoak, and the Brenton Lakes) "with a view to establishing a Provincial Park there for summer and winter recreation". The resolution was followed by a 1950 brief to the Provincial Government advocating the immediate establishment of a park. Additional briefs, in 1954 by the Amalgamated Lower Vancouver Island Sportsmen's Association (a consortium of eight outdoor clubs representing hiking, fishing, skiing, and hunting interests) and in 1955 by the Victoria Snow-Birds Ski Club, supported the park proposal.



*Hikers at Silver Lake, 1950's*

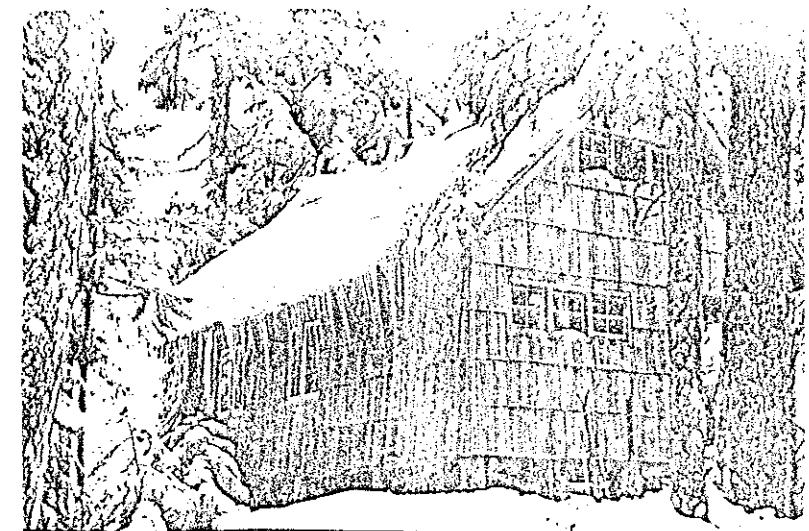


*Skiers on Mt. Brenton, 1950's*

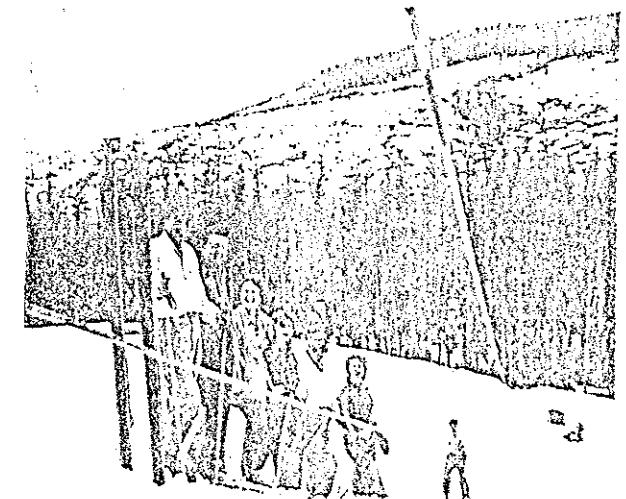
In response to the initial expressions of public support for a park, the Parks Division looked into the feasibility of the proposal. As the lands and timber involved were privately owned, acquisition costs were significant. Coupled with those expenditures anticipated for development and maintenance, financial aspects of the proposed park were considered to be too great, particularly when these were considered in the context of ski conditions which were often less than ideal.

However, park or not, the area continued to receive year round recreational use. The small cabin on Silver Lake functioned as an overnight facility. In 1954 it was significantly complemented when the Victoria Snow Birds Ski Club constructed a small Lodge at the mouth of Silver Lake. The Club also erected two small ski rope tows on the adjacent logged portion of Mount Brenton. Thus, the Mount Brenton Area had a weekend ski operation that operated on a day use and overnight basis, with the overnight accommodation being available to hikers, fishermen, and hunters in the off-season.

About 1960, the development of the Green Mountain Ski Area commenced and the superiority of conditions were such that the rope tows were removed from Mount Brenton for the initial development of Green. However, the lodge was left intact at Silver Lake so the Mount Brenton Area retained its overnight accommodation facilities. These continued to be used on a first come basis by the hikers, fishermen, hunters, and other outdoor groups.



*Ski Lodge - Mt. Brenton*



*Rope Tow - Mt. Brenton*

### CURRENT RECREATIONAL USE

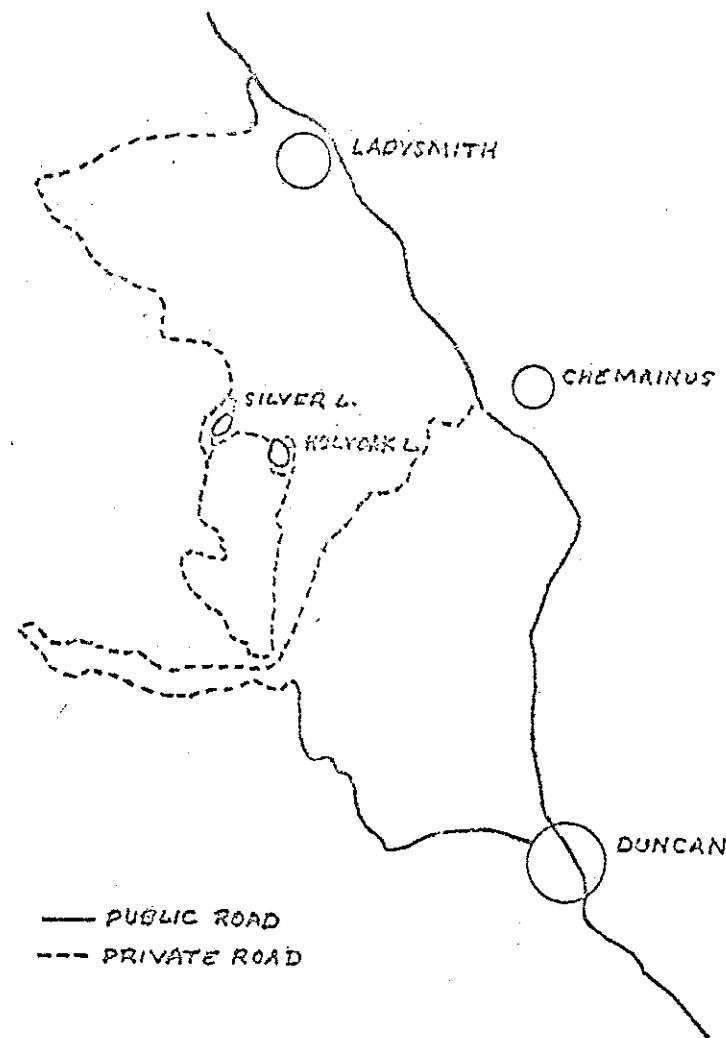
Current recreational usage of Silver Lake and adjacent area appears to be similar to that of the past, with the exception of downhill skiing for which facilities no longer exist. The amount of use has probably increased as a result of greater populations in the area between Nanaimo and Duncan and the general increased interest in outdoor recreation that has taken place during recent times.

Although it was not possible to monitor recreational activity in the area on a regular basis, an assessment of the situation has been developed from the irregular visits by individuals concerned with various aspects of the Banon Creek - Silver Lake - Solly Creek Alternatives, visual evidence of recreational use in the area, and information from representatives of organized groups in surrounding communities.

### ACCESS

The Silver Lake and Mount Brenton Area is accessed via logging road from Ladysmith or Chemainus. As these routes are private industrial roads, public use restrictions are in effect. The three logging companies concerned, for safety reasons, prohibit the public from the roads during operating hours; thereby confining public use to weekends and weekdays after operations have ceased. One firm, Crown Zellerbach Ltd., has experienced problems with certain members of the public ignoring their road access restrictions and vandalizing road gates.

At this time, only 4-wheel drive vehicles can actually get to lakeside at Silver or Holyoak via the Ladysmith Route. Dependent upon weather conditions, conventional vehicles can get within a quarter mile of Silver Lake's northeastern end. The route from Chemainus to Holyoak Lake is passable to conventional vehicles, except the last mile where washouts have in past made it a 4-wheel drive situation. Thus, condition of the access roads may result in situations where those with conventional vehicles have to travel the last portion on foot--a deterrent strong enough to discourage many people.



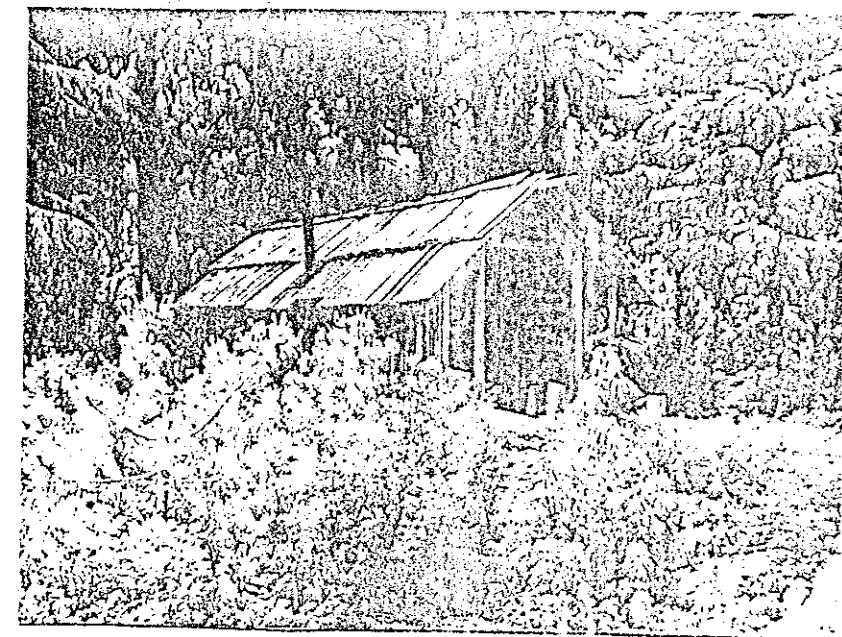
## NATURE AND AMOUNT OF USE

Most use occurs on weekends during the time the area is snow-free, usually late May to early October. There is some winter use on the part of organized groups but it represents a small fraction of the total. Page 1 of the Appendix contains a record of use observed at Silver and Holyoak Lakes in the period June through August by persons concerned with the Banon Creek - Silver Lake - Solly Creek Alternatives. This shows regular use of Silver Lake by small numbers of people. As observations were taken mainly during the normal workweek, there is a bias towards the lower numbers of users found on weekdays.

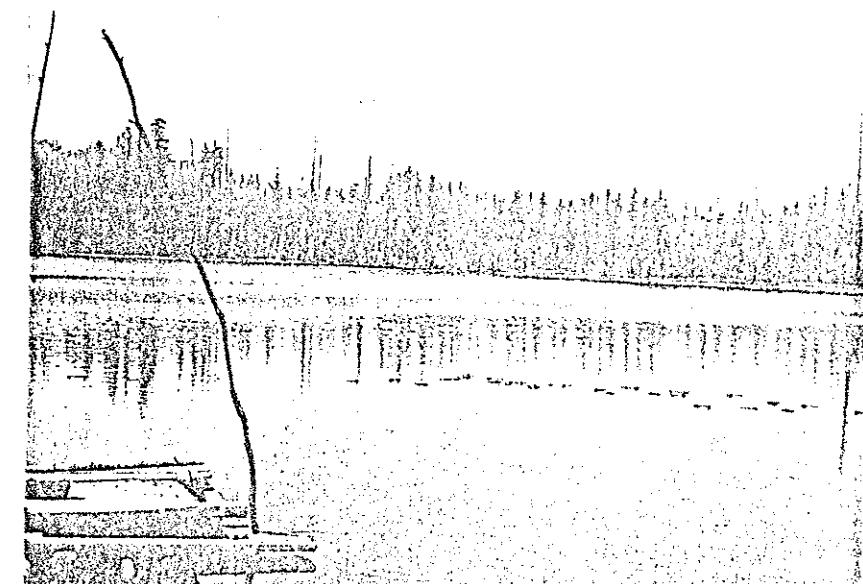
### Fishing

The most frequent users appear to be individual parties who fish Silver and Holyoak Lakes, sometimes staying overnight in the small cabin or the lodge. From the number of fish observed in Silver Lake and fish remains in the vicinity of the buildings, fishing must be quite successful--the quantity of the catch compensating for the small size of fish. Fishing activity on Holyoak Lake indicates a similar situation, with the use level being somewhat higher because of the easier access from the Chemainus side. Indications are that fish are of greater size, possibly because of the larger water volume.

The inability of those with conventional vehicles to drive right to Silver Lake has restricted the use of boats on the Lake. Only the lightest of cartops or inflatables are used and many fishermen use rafts which were constructed on site. Recent logging activity at its eastern end has resulted in another access point to the Lake and the subsequent construction of a rudimentary wharf and additional rafts.



*Fishermen's Cabin - Silver Lake, 1975*



### Hiking

While the Mount Brenton Area is similar to that of surrounding mountains, the presence of the lakes, overnight accommodation facilities, the logging road access, and the scenic vistas available from the Brenton, plus the relatively low number of users, combine to attract a certain number of hikers on a day use and overnight basis.

### Hunting

Like most other parts of the Island during the fall, this Area is used extensively by hunters. The presence of overnight facilities in an area that supports a deer population enhanced by adjacent logging activity plus the attractions of the lakes makes the area appealing for hunters.

### Skiing

With the removal of the rope tow and the development of Green Mountain, downhill skiing activity ceased. However, recently the Area has been used by cross-country skiers for ski touring. A Nanaimo based club has used the lodge during the past year.

### Organized Groups

The existence of a lodge facility allows larger parties to use the Area on an overnight basis. Scouting groups from the Chemainus-Saltaire-Duncan Community have used this building on an irregular basis. School District No. 65 (Cowichan) has been using the Area for outdoor education purposes during the past two years. Two schools are concerned, Chemainus Secondary School and Mount Prevost School in Duncan. The program of the former school is usually of four to five days duration involving 30 to 40 students plus adults supervisors. It is held in May or June depending upon the snow melt and emphasizes outdoor skills, resource management, and ecology. Indications are that a fall program would be carried out if the area was not being used by hunters at that time. The program for the latter school is of similar duration and usually involves about 25 to 30 students. The time of use is in winter, December and March, and the emphasis is more towards outdoor skills. Page 2 of the Appendix contains correspondence relating to these school programs.

## IMPACT ON RECREATIONAL USE

Implementation of the Banon Creek - Silver Lake - Solly Creek Alternatives will affect recreational use of the Area in three basic ways. Access to Silver and Holyoak Lakes will be much improved; the physical characteristics of the Lakes, particularly those of Silver, will be altered; and the possibility exists that the Municipality may want to restrict recreational use for water quality reasons.

### I. IMPROVED ACCESS

Construction activities associated with raising the existing dam on Holyoak Lake and building the storage dam on Silver Lake will necessitate improved road access to both Lakes. After completion of these works it will be difficult to restrict the public from driving conventional vehicles right to the Lakes. This will likely result in an increase in recreational use with its attendant impacts of increased fishing pressure, additional boats using the Lakes, increased maintenance requirements, and the possibility of some user conflicts.

### II. PHYSICAL ALTERATIONS

While improved road access to the Lakes will bring an increase in users, the alterations in the Lakes' physical characteristics will likely result some changes in the type recreational use. This may not be that noticeable at Holyoak Lake, since the Lake level has already been raised and logging activity has resulted in the removal of the forest cover right to the shoreline.

However it will certainly be evident at Silver Lake, where the water level will be raised 10 feet and be subject to a similar amount in drawdown.

#### Change in Character (Visitor Perception)

From a recreational viewpoint, Silver Lake is presently providing a semblance of a wilderness lake experience. It is able to do this mainly by virtue of its restricted access, irregular shaped shoreline which prevents users from viewing the entire lake from any single vantage point, and the intact forest cover that encircles it. This wilderness type experience will be lost when the improved access allows conventional vehicles to drive to the lake--resulting in more users, and when the higher water level results in a regular shaped shoreline--allowing entire vistas of the lake from almost any shoreline vantage point. The presence of a dam at one end of the lake and the probable loss of the fringe of tree cover that separates the lake from the logging at the opposite end will complete the removal of this wilderness character.

The effect of this alteration in the lake's character will be such that those who came to Silver Lake for its wilderness values will no longer be present. In terms of the future amount of use, their absence will not likely be noticed amongst the increased numbers resulting from easier access. However, the question should be raised regarding the availability of an alternative for those displaced.

#### Loss of Natural Shoreline

The loss of this feature in addition to altering the lake's character certainly reduces its suitability for the ecological oriented portions of the school outdoor education programs. How much of the marshy area below the dam that remains in a state useful to the schools is open to question? If Silver Lake water is diverted to Banon Creek, it would seem that there will be little marsh left at either the lake or creek. Should the lake water remain flowing to Silver Creek, under conditions of controlled release, it would seem that the portion of marsh below that dam that is undisturbed by construction activities will still be in a state useful for the schools.

With respect to the new shoreline that will be created, efforts should be made to make it appear naturalistic. Trees and larger shrubs which will be inundated should be removed prior to the raising of the water level. Selective removal of trees along certain portions might be considered to reduce the abruptness of the new shoreline, since many of these may die anyway because of the change in water table. Debris from these activities would be part of the clean up program after completion of construction activities.

#### Loss of Cabin and Lodge

Unless these structures can be moved to high ground or replacements constructed, the overnight accommodations will be lost. This would effectively give the Area more of a day use orientation and would mean the elimination of most winter recreational use. It is doubtful whether the school programs could continue without the presence of a lodge structure. The numbers of hunters using Silver Lake as a base camp would be considerably reduced and there would also be a reduction in the numbers of fishermen and hikers staying overnight in the Area.

### Possible Change in Fishing Productivity

The raising of the lake would provide additional water area for fish and may be beneficial in the sense that a larger population could be sustained, with perhaps an increase in average fish size. This may enable the lake to withstand the heavier fishing pressure resulting from easier access. However, the anticipated increase in productivity is predicated upon the fish being able to spawn in the lake, since access to Silver Creek will be lost to them.

### Fluctuating Lake Level

The level of the lake will vary approximately 10 feet in depth, depending upon the amount of drawdown. The time of year indicated as July through October is during the period of high recreational use. The exposure of the drowned shoreline will likely be quite evident, being modified only by the extent of efforts to remove vegetation prior to the initial raising of the lake level.

### III. WATER QUALITY RESTRICTIONS

Holyoak Lake presently forms part of the water supply for the Municipality of North Cowichan. The current level of recreational use of the Lake does not appear to be a factor in the quality of the Municipal water supply. Whether the anticipated increase in recreational use of both Holyoak and Silver Lakes will result in a Department of Health position of actively discouraging recreational use is not definite at this time.

Before expenditures are made to accommodate recreational activity at the Lakes, the position of the Municipality and its Medical Health Officer should be formally obtained. Information to date has indicated that recreational use of reservoirs is discouraged. However, Health Authorities are limited in their ability to actively discourage recreational use. It appears that action might only be taken at the point when drinking water analyses disclose a hazard to health.

## CONCLUSIONS

Silver Lake and adjacent area is used on a regular basis by a comparatively small number of recreationists, principally from the Ladysmith-Chemainus-Duncan Communities. While the level of use is a reflection of the constraints on access and the size of the Lakes, it appears to be in balance with the Area's ability to sustain recreational activity on an unorganized basis. Any increases in this level will require some form of organized maintenance as there is already some evidence of site deterioration.

Implementation of the Banon Creek-Silver Lake-Solly Creek Alternatives will result in improved access to the Lakes and physical alterations to Silver Lake that change its recreational character. This will facilitate additional recreational use, however, the nature of the experience obtained at Silver Lake will be different from that presently available, with the result that some current users will be displaced.

Considering the impacts of these Alternatives in a recreational context, it would seem that the Silver Lake-Silver Creek Proposal is preferable to the Banon Creek-Silver Lake Diversion, since the former will result in a lesser degree of disturbance to the marsh areas. While not having access to studies done in connection with the Chemainus Dam Proposal, it would seem that losses in recreation values associated with the sports fishery on the Chemainus River would outweigh any losses in recreational values associated with the Banon Creek-Silver Lake-Silver Creek Alternatives.

## RECOMMENDATIONS

The volume of water that the Alternatives will actually contribute to the Municipal water supply should be evaluated in light of the current recreational use of the Lakes. Particular attention might be paid to the proportion of water that the Silver Lake reservoir contributes to the total Municipal supply in relation to the type of recreational experience currently available at the lake.

Before actual implementation, an investigation of the capability of adjacent lakes to provide the semblance of wilderness lake experience presently being obtained at Silver Lake should be carried out.

If either Alternative is to be implemented, provisions should be made for recreational facilities and their maintenance. This is necessary since the level of use after implementation will likely be such that planned facilities and organized maintenance will be required to prevent site deterioration.

Prior to any expenditures for recreation at the Lake, the position of the Forest Products Companies toward recreational use should be formally obtained, as they are the actual land owners and are in control of the access roads. Also, the position of Health Authorities towards recreational use should be obtained in a similar manner.

OBSERVED RECREATIONAL USE  
SUMMER, 1975

Silver Lake

Holy Oak Lake

JUNE

Monday, 16	Nil	---
Tuesday, 17	Nil	---
Wednesday, 18	Nil	---

JULY

Monday, 7	2 Teenagers fishing	stayed overnight at cabin (2 nights)	---
Tuesday, 8		--	2 Teenagers & 1 Adult fishing
Wednesday, 9		2 Teenagers & 1 Adult	---
Friday, 11		3 Trailbikers	---
Friday, 18		2 Hikers	---
Sunday, 20		2 Hikers	---
Tuesday, 22		3 Boats (5 people)	---
Wednesday, 23		1 Boat (2 people)	---
Sunday, 27		3 Boats	---

AUGUST

Monday, 11	Nil	---
Tuesday, 12	5 Teenagers (stayed in cabin)	5 Adults (2 in boat)
Wednesday, 13	5 Teenagers 1 Adult (north end of Lake) 2 Adults camped in R.V.	3 On shore
Saturday, 10	Nil (rain)	---
Monday, 18	5 People	---
Friday, 29	2 Fishermen 3 Adults 2 Fishermen	2 Fishermen

--No observations made