

Rock Creek

Devils Lake

June 29, 1955

I Location and Accessibility:

- A. Rock Creek is the major Devils Lake tributary and is located along the east side of the lake, and has its mouth located about .6 mile east of the 101 highway at the southern end of the lake.
- B. The lower area of the stream is accessible by turning east from highway 101 at the north side of the Swan Outdoor Theater located at the southern city limits of Delake. This Lincoln County road runs along the S. E. shore and crosses Rock Creek near its mouth.

The middle portion of Rock Creek is undoubtedly accessible from side roads only one of which is scouted. This road leads to an aluminum enclosed reservoir at the summit of the hill.

II Interviews:

- A. A man (Mr. Holter?) living on the first farm above the first bridge across Rock Creek, said that he blasted and dug a channel for the stream on his property about 3 years ago at a cost of \$1200. Prior to this channelization, the stream used to spread out into a shallow swamp. His son said that small salmon and trout fry were stranded (and killed) by the "million" when this new channel was completed.

These men also said that Caulkin's Boat Co. have been putting in a small dam at the outlet of Devils Lake to facilitate motor boat races and a swimming pool for the past 2 years. He thought this dam blocked the downstream migrating adult steelhead from going back out to sea.

He also stated that no dog or chinook salmon have come into Devils Lake system that he knows of, just silver sides and steelhead, and these fish have been seen in good numbers, years ago, in the vicinity of "Osterman" Creek.

He was also of the opinion that the upper part of the stream had been messed up with logging debris about 5 years ago; the land owner's name was Andrews (now in Portland) and one of the loggers was Roberts Brothers (possibly in Wecoma Beach at present).

- B. A Mr. McMillen, a dairy farmer living in the second house above the first bridge over Rock Creek, said that in the past salmon had spawned from his place on upstream. He noted that, as usual, the numbers of fish spawning had decreased within the past few years. When asked about the length of time that the dam and water wheel

on his place had been in operation he replied "about 12 years". Saying that the water wheel pumped water for domestic uses. When Mr. McMillen was asked about how far up Rock Creek spawning salmon were present, he answered that he did not know. He also stated that his board and earthen dam frequently collapsed and washed out during freshets of high water.

### III Survey

- A. Distance: Rock Creek was surveyed by foot for 5 1/2 miles from the first county road bridge crossing Rock Creek upstream to the 4th tributary entering from the right side. In addition 150 feet of left tributary located 200 yards above falls C-4 was also surveyed.
- B. Temperature and Flow Data: 6/29/55 - 1145 - cloudy - taken at Oceanlake City Water Pump and intake 3 1/2 miles upstream from county road bridge and 4 miles upstream from mouth. Temperature - air 56°F - water 50°F - flow 6. c.f.s. - visibility #1.
- 6/29/55 - 11-30 - cloudy - taken on tributary 200 yards above falls 1/8 c.f.s. - air temperature 54°F - water 50°F - visibility #1 overcast.
- 6/29/55 - 1045 - cloudy - taken at end of survey in right hand tributary - 1/8 c.f.s. - air temperature 55°F - water 48°F - visibility #1 overcast.

### IV Description of Basin and Stream:

#### A. Basin:

1. The Basin of Rock Creek for the first mile upstream from the county road bridge to the end of the pasture land, is entirely meadow.
2. For the next 1 3/4 miles is of logged off timber-land. This distance extends from the upper end of the pasture land upstream 1 3/4 miles to an old logging road bridge.
3. For the remaining 2 3/4 miles which were surveyed is covered by standing timber consistend of spruce, hemlock and douglas fir except for small logged off area in vicinity of falls C-4. The stream is well shaded with green trees in the upper part.

#### B. Stream:

The lower 1 1/4 miles of this stream from the county road bridge upstream to the upper end of the pasture has gravel which is for the most part only fair in quality and probably is not used for spawning to any great extent. The stream area from the upper end of the pasture to the Oceanlake water intake a distance of 2 1/4 miles has some excellent spawning gravel available. Rock Creek has a moderate gradient for the entire distance surveyed. Except for falls C-4.

### V Bottom Description:

- A. From the beginning of the survey (at the county road bridge) upstream for a distance of 1/3 mile to the water wheel on the McMillen dairy

farm (C-1) the bottom was composed of 50% pea to marble gravel and 50% sand and silt. About 20% of this area is spawnable. However, there are several very good riffles present for spawning immediately below the water wheel.

- B. From the water wheel upstream to the upper end of the pasture land a distance of about a mile. The bottom is composed of 50% pea to marble gravel, 25% marble to walnut sized gravel and 25% silt and sand. This area has 30% spawnable gravel.
- C. From the upper end of the pasture land to an old logging road bridge a distance of 1 3/4 miles. This logging road closely parallels the stream or tributary which enters from the right. The stream in this area has a bottom composed of 50% walnut to egg sized gravel, 40% marble to walnut sized gravel, with 10% smaller gravel i.e., 5% pea to marble and 5% silt and sand. This area contains 50% spawnable gravel.
- D. From the tributary and the logging road bridge to the Oceanlake water dam, C-3, a distance of 1/2 of a mile the bottom is composed of 25% pea-marble gravel, 50% marble-egg gravel (25% marble to walnut and 25% walnut to egg) 10% larger than egg, 5% bedrock and 10% silt and sand. As in area C this area contains 50% spawnable gravel.
- E. From the Oceanlake water supply dam C-3 upstream 1/2 mile to 7' falls C-4: 20% bedrock, 10% grapefruit, 25% baseball, 25% egg walnut, 20% pea sand. 30% spawning area.
- F. From Falls C-4 upstream about 1 1/4 mile to dam C-5: 5% football, 10% grapefruit, 30% baseball, 30% egg-walnut, 25% pea marble sand. Approximately 50% spawning area.
- G. From C-5 dam upstream 1/8 mile excellent egg-walnut gravel with 70% spawning area.
- H. Next 1/8 mile to small right tributary and end of survey mostly bedrock and negligible spawning area.

#### VI Obstructions:

C-1 The first obstruction of note upon this stream is the log, board, and earth dam about 8' high which is located at the McMillen Farm about 1/3 of a mile upstream from the county road bridge.

This dam is used to impound water to run an 8' water wheel pumping water from a well for domestic and stock water on the McMillen farm.

This dam is about 10' wide 8' high and about 4' thick.

The water wheel has, according to Mr. McMillen, been in operation for 12 years and is fed by an unscreened diversion flume. The regular normal overflow system is a three step fish ladder of sorts, ending in a board apron at its lower end. Due to the board apron at the base of the normal spillway the ladder at this water stage is impassable and appears to be a serious barrier during the winter to adults.

Even though McMillen says that this dam washes out frequently some better fish passage should be provided for fish passage at low water stages. Passage of downstream migrants is passable at any water stage, although some may get whopped by the water wheel. (See sketch)

- C-2 The logged off timber-land which extends from the upper end of the pasture land to the old logging road bridge, a distance of  $1 \frac{3}{4}$  miles is in a messy condition but does not prevent or slow down fish passage at this time.
- C-3 The third obstruction on this stream is a small 2 foot high by 10 feet wide by 1 foot thick rock and board dam used in conjunction with the Oceanlake Municipal Water Supply pump which is located  $3 \frac{1}{2}$  miles upstream from the county road bridge over Rock Creek. At present this does not appear to prevent fish passage. The pumping area is separated by a  $\frac{1}{2}$  inch mesh screen and undoubtedly the bottom of the suction bell has a finer mesh screen although it couldn't be seen.
- C-4 7' falls over bedrock at a  $30^\circ$  angle from vertical. It is approximately 15' wide and has some naturally eroded steps that prevent this falls from being a complete barrier to upstream migrants. This falls is located approximately  $\frac{1}{2}$  mile above the dam C-3. It is probably impassable at some water stages, though. Silver fry numerous above this falls.
- C-5 Small dam (original water supply for Oceanlake) 3' high in two parts separated by a horizontal wooden platform 8' wide and 7' long. At present there is 1" of water flowing over the platform and at higher winter flows it appears to be a serious barrier that is passable at only high water flows. Three or four silver fry were seen above this dam so it is not totally impassable. Located about  $1 \frac{1}{4}$  miles above falls C-4. (See sketch).

USFS

A six inch water supply line is screened as follows:  $\frac{1}{2}$ " mesh separating the reservoir from the intake area which is in good shape; a separator with 3 layers of  $\frac{3}{8}$ " screen which was badly clogged and in rather poor shape; a grating with 1" horizontal openings in the intake box. The 3 layers of  $\frac{3}{8}$ " screen was a few inches from reaching the bottom and a 4" trout was seen down there and 3 silver salmon fry were seen around the intake box behind all of the screens.

#### VIII. Observations of Fish:

- A. Good numbers of silver salmon fingerlings were observed throughout the area from the upper end of the pasture land to the upper dam C-5. Silver and trout fry were present but in very small numbers above C-5.
- B. Numerous small trout were also observed in the same area extending upstream from the McMillen farm to the dam C-5.

VIII Roads and Trails

- A. Rock Creek from the county road bridge to the last house on the road is accessible from the county road this is a distance of  $3/4$  of a mile.
- B. The upper survey area is accessible by means of a gravel road leading east from "Phelp's Place" to the Oceanlake water reservoir. From the reservoir and water works a trail closely follows Rock Creek and a pipeline upstream to the upper-most dam C-5.

IX Hatchery and Planting Sites

- A. Hatchery Sites: Lack of water precludes the establishment of a hatchery.
- B. Planting Sites: Rock Creek could be planted from the county road bridge across Rock Creek. There are also three private bridges over Rock Creek which could be used as planting sites. That is each of the three farms on lower Rock Creek has a bridge across the stream.

X Maps: See attached maps and sketches.

XI Recommendations:

It is recommended that plans for an adequate fish ladder to ensure fish passage over dam C-1 be furnished Mr. McMillen by the Fish Commission engineers. It is also recommended that the Oceanlake water department be given plans for a ladder on Dam C-5 and at the same time be advised how to successfully screen out small salmonoids.

XII Remarks:

A small dam of a couple logs and dirt has been placed at the outlet of D-Lake shown as A-1, and causes a 2' difference in the height of the water. This water level during the summer is probably quite important to the D-Lake residents.

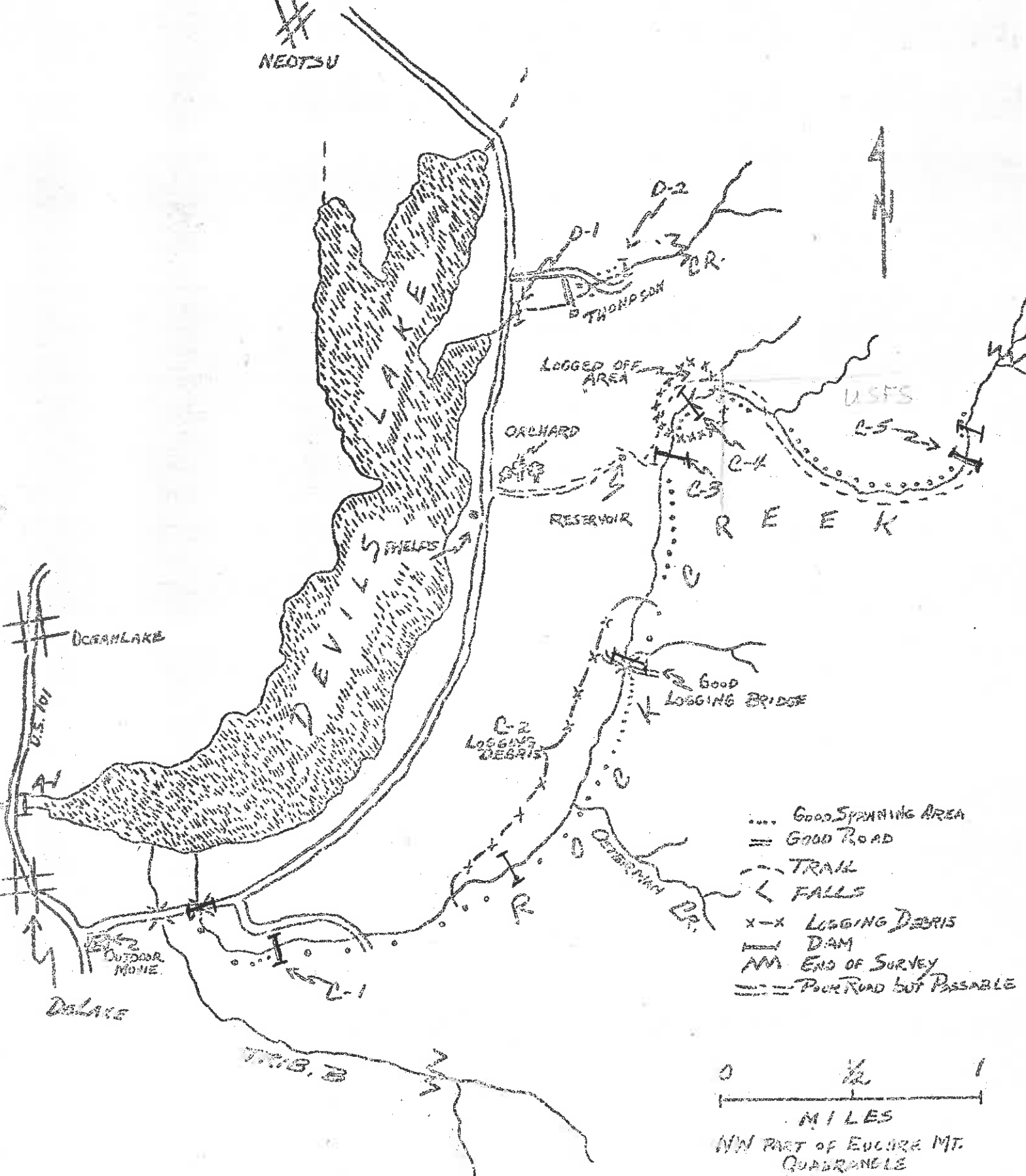
If a counting weir were established here a means of preventing logs from washing in would have to be made as 2' of tail water from surf was noted under bridge.

Raymond A. Willis  
William B. Nibler  
Aquatic Biologist

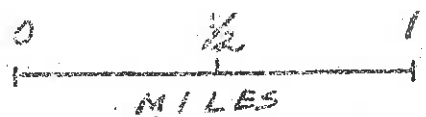
ROCK CREEK & OTHER TRIBS.

DEVIL'S LAKE  
JUNE 28-29, 1955

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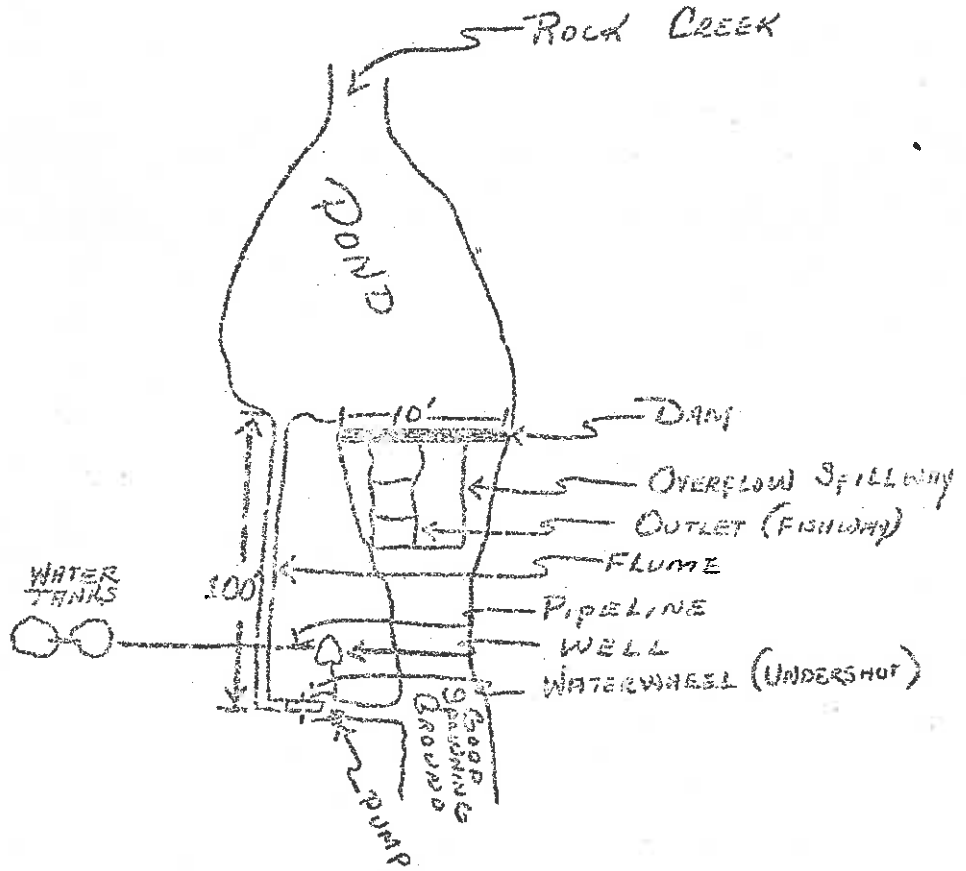


- ..... Good Spawning Area
- Good Road
- ..... TRAIL
- L FALLS
- x-x LOGGING DEBRIS
- DAM
- END OF SURVEY
- POOR ROAD BUT PASSABLE



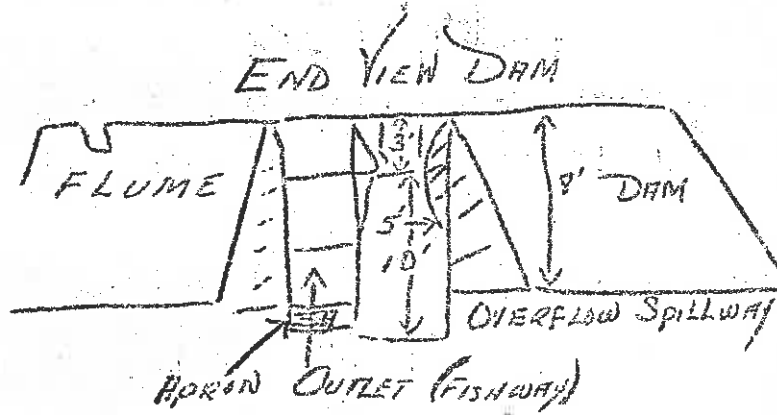
NW PART OF EUGENE MT. QUADRANGLE

DEVILS LAKE  
McMILLEN DAM  
OBSTRUCTION C-1  
JUNE 28, 29, 1955

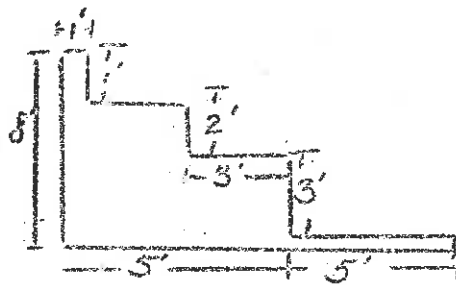


PLAN VIEW DAM

DEVILS LAKE  
McMILLEN DAM  
OBSTRUCTION Q-1

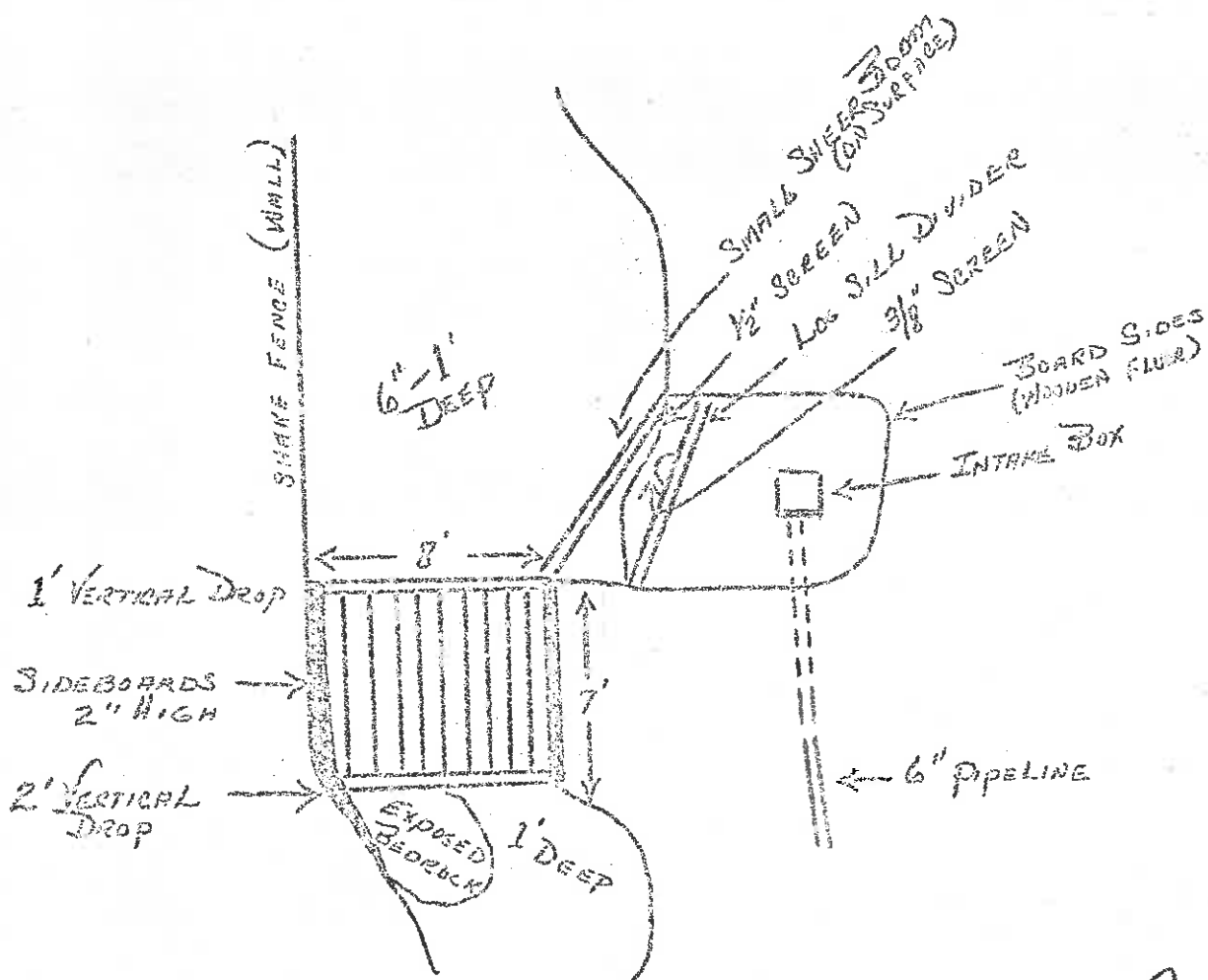


SIDE VIEW DAM





DEVIL'S LAKE  
 McWILLEN DAM  
 OBSTRUCTION Q-1  
 JUNE 28, 29, 1955



PLAN VIEW  
 OF OBERLAKE  
 DAM Q-5