Province of
British Columbia

Ministry of
Environment

1259 Dalhousie Drive
Kamloops
British Columbia
V2C 5Z5
Telephone: (604) 374-9717

YOUR FILE .....
OUR FILE 55.50

April 7, 1988

⊠

Dear Sir/Madam:

RE: Robbins Creek

There is every reason to believe that 1988 will be a water short year and that water use from Robbins Creek will require regulation. As the flows in Robbins Creek diminish late priority water rights will be required to discontinue the use of water in favour of earlier priority water rights.

It appears that there will be insufficient runoff to fill the storage reservoirs on Robbins Creek and irrigation licences that are backed by storage will also require regulation.

Mr. Harold Sample is the appointed water bailiff and has the authority to regulate and control the diversion and use of water on Robbins Creek and tributaries, subject to the supervision of the Engineer, under Section 33 of the Water Act. Your full cooperation with Mr. Sample is requested.

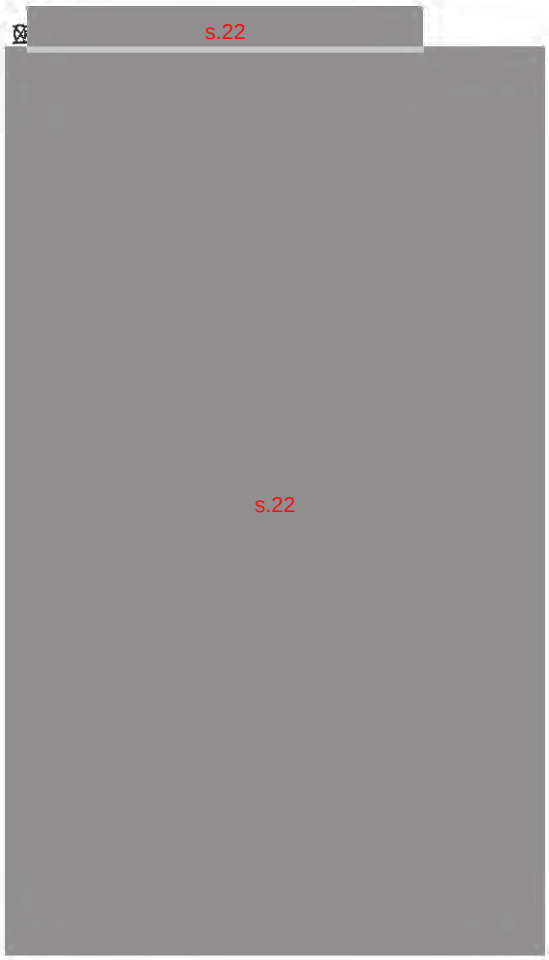
Yours truly,

Ron B. Smith, P.Eng.,
Water Allocation Section Head
Southern Interior Region

ME:lb

s.22

s.22


s.22
s.22

Province of British Columbia

Ministry of Environment and Parks

MEMORANDUM

To: Memo to File

April 6, 1988

File: 55.50

Re: Robbins Creek Regulation 1988

On April 5, 1988 Mr. Harold Sample was in the office and gave me the following information and requests:

- there is very little snow in the upper watershed of Robbins Creek and he does not believe that the reservoirs will fill (Disdero and Little Disdero Lakes)

- he is already experiencing some regulation problems with the holders of CL's 33574 and 33575 (0281383), a s.22 s.22

- he would like a letter sent out to all licensees informing them of the water shortage and that he is the water bailiff

- he would like 3 weirs installed on Robbins Creek.

I said I would draft a letter and suggested that he write a letter requesting the weirs.

M. Edwards

M. Edwards
Engineering Technician

ME:lb

Some sample sol'n to standard problem on Robbins Creek.

1. How much water should be let past Dividers Lk. diversion prior to 1 Jun. (end of storage)

Add up all diversions prior to 1912 d/s of Dividers Lk. div. (earliest storage is 1909) not backed up by storage. AF/day ≈ 0.5 cfs

FL 42955	0.25 cfs
CL 50217	.16
CL 50219	.13
FL 15303	.12
CL 41456	.015
CL 41454	.015
FL 42954	.24

0.93 cfs + 50% stream bed loss d/s of Dividers to s.22 = 1.40 cfs

74 AF of storage allowed in L. Dividers in 1909 (CL 50217 & CL 50219)
If that much storage in Dividers Lk.
Then allow add'l flow d/s of the div. to satisfy 1912 div.

CL 33573	0.04 cfs
CL 40457	.11
CL 40459/36749	.07
CL 33569	.06
CL 33574	.015

0.30 cfs + 0.15 (stream bed loss) = 0.45 cfs

Total to allow past Dividers Lk. div.
(if 74 AF of storage in it)

1.40 + 0.45 = 1.85 cfs

2. How much water should be diverted to Bear Creek?

Add up daily demand of two licenses on this div. & subtract amount of flow in Bear Creek. (Lic's supply to Bear Creek)

FL 42949	0.25 cfs
FL 42950	0.85
	1.10 cfs

Maximum – may or may not allow any ditch loss depending on critical shortage in Robbins Creek is.
– cannot divert any water until demand prior to '99 is met

FL 42955	0.25
CL 50217	0.33
CL 50219	0.26

0.84 cfs + 50% loss.

s.22

May 2 1980.

plus s.22

045-R

District Water Rights Engineers
Water Rights Branch
Government Blgds
Columbia St.
Kamloops, B.C.

Dear Sir:

I s.22 of Robbins creek. s.22 Water Licence entitles s.22 to water which at this time there is none, due to the following people above s.22 who are sprinkling from the creek.

s.22 Ok, Licence allows.
s.22 -6 sprinklers.
s.22 -12-20 sprinklers.
s.22 -20 to 30 sprinklers, plus storing in their lake
s.22 -6 sprinklers.
s.22 -sprinklers.(6)
s.22 Ok, Licence allows.

s.22 and s.22 taking full ditch of water which is flooding Cowan Meadows s.22 property) instead of going down their ditch to the Hidden Vale dam.

Please note that s.22 and s.22 could have been taking water for their storage in March and April but didn't start until April 22 1980. After all the main water had gone by.

I would like some action from your Department or a directive on how to recifty my problem

Yours truly:

Province of British Columbia
Ministry of Environment

MEMORANDUM

To: MEMO TO FILE

Date: May 1, 1980

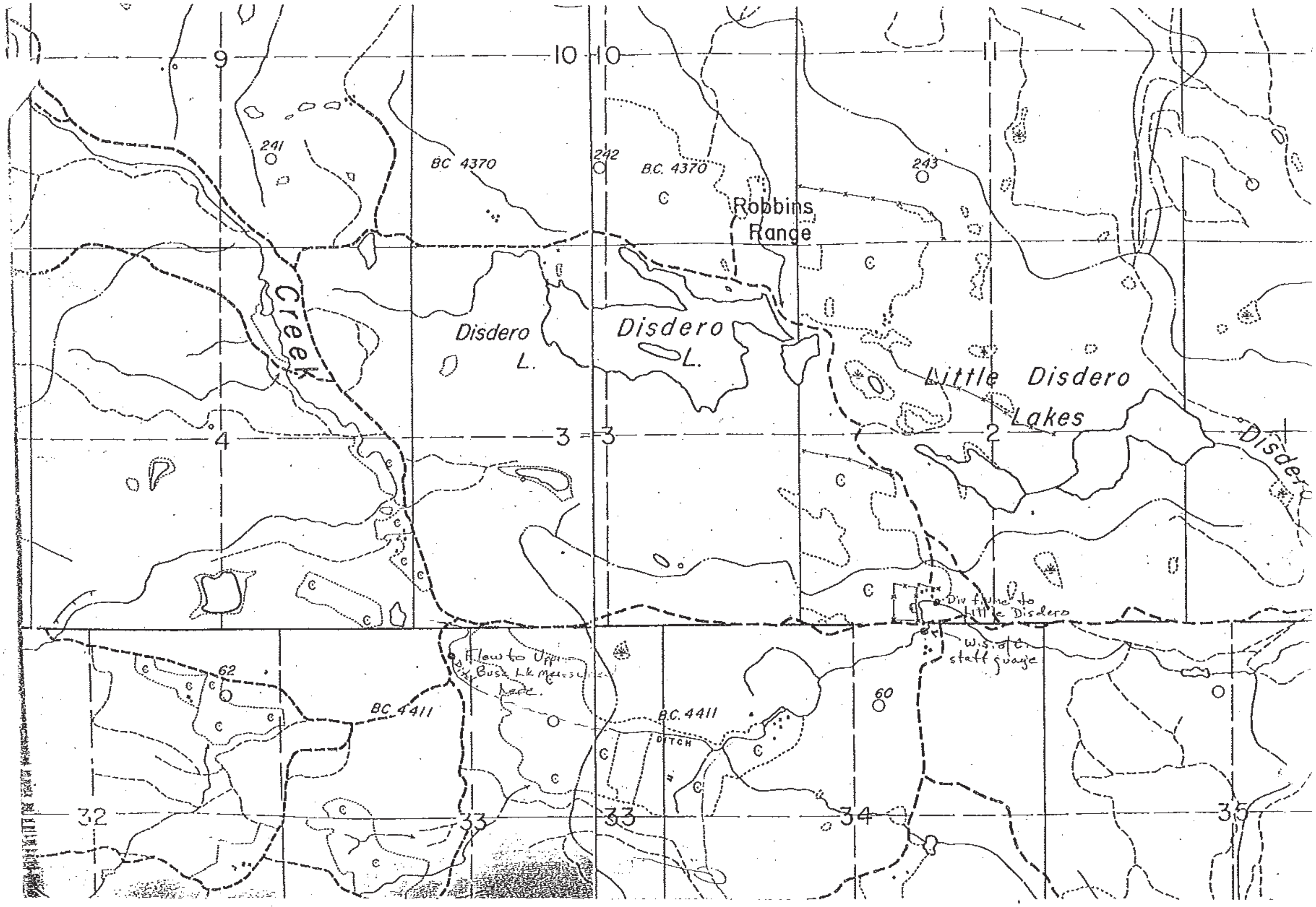
File: 045-R ~~0322550~~

Robbins Creek, measured @ Robbins Range Road, @ 11:43 hrs. of this date = 5.8 cfs (Water Surveys of Canada station). Of this flow approx. 1/2 cfs was being returned to the creek after the Little Disdero Lake diversion. The remainder, except for miner leakage, went into storage, no diversion out of Little Disdero at this time.

Diversion from Robbins Creek to Upper Buse Lake via ditch was measured in the ditch approx. 500' from the Robbins Range Road crossing, Q = 0.139 cfs.

Ed Shaw

Ed Shaw


9
10
10
11
241
BC 4370
242
B.C. 4370
243
Robbins Range
Creek
Disdero L.
Disdero L.
Little Disdero Lakes
Disdero
4
3
3
2
Div flume to Little Disdero
W.S. of staff guage
62
BC 4411
B.C. 4411
DITCH
60
32
33
33
34
35

FILE NO. 645-R

DATE 1 May 80

TIME

TELEPHONE/OFFICE INQUIRY

CALLING PARTY [redacted] PHONE NO. [redacted]

SUBJECT Water Shortage on Rollins Creek

They both wanted to know who has what rights. Both are familiar w/ the area & [redacted] I gave Sample a copy of the stream register & rough calculations on how to determine # of sprinklers for the size of the license & an earlier copy of the priority rights & amounts of the first 8 priority licenses. Sample indicated that he may have some success in getting all the ranchers together & make the best of the situation. We went over a few of the licenses together to sort out some questions in their own minds.

ACTION TAKEN Told both of them to contact us again if the problems are insolvable & that we would continue to provide assistance

SIGNED P F Doyle

FILE NO. 045-R

DATE 30 Apr 80

TIME

TELEPHONE/OFFICE INQUIRY

CALLING PARTY [redacted] (CL 39273) PHONE NO.

Robbins Creek

SUBJECT Shortage of water d/s on Robbins Creek

[redacted] felt that too much water was being diverted into Upper Bruce Lk (He probably meant Dividend Lk)

ACTION TAKEN Ed Shaw went out next day & made flow measurement See memo to file

SIGNED

045-K

DEPARTMENT OF THE ENVIRONMENT
WATER RESOURCES BRANCH – WATER SURVEY OF CAN.

COPY NOT ORIGINAL

STAGE-DISCHARGE TABLE

Station Name ROBBINS CREEK ABV. DISDERO Creek Station No. 08LE078

Table No. 6 Computed by J. I. M Checked by _____ Date OCT. 31 1979

G.H. ft	Discharge cfs	Diff. cfs	G.H. ft	Discharge cfs	Diff. cfs	G.H. ft	Discharge cfs	Diff. cfs	G.H. ft	Discharge cfs	Diff. cfs	G.H. ft	Discharge cfs	Diff. cfs	G.H. ft	Discharge cfs	Diff. cfs
1.00			3.00	8.7	0.7	5.00	29.6	1.8	.00				.00				
.10			.10	9.4	0.7	.10	31.4	1.8	.10				.10				
.20			.20	10.1	0.8	.20	33.2	1.8	.20				.20				
.30			.30	10.9	0.8	.30	35.0	1.8	.30				.30				
.40	0.08	0.18	.40	11.7	0.8	.40	36.8	2.2	.40				.40				
.50	0.26	0.26	.50	12.5	0.9	.50	39.0	2.4	.50				.50				
.60	0.52	0.30	.60	13.4	0.9	.60	41.4		.60				.60				
.70	0.82	0.38	.70	14.3	0.9	.70			.70				.70				
.80	1.2	0.40	.80	15.2	0.9	.80			.80				.80				
.90	1.6	0.50	.90	16.1	0.9	.90			.90				.90				
2.00	2.1	0.60	4.00	17.0	0.9	.00			.00				.00				
.10	2.7	0.60	.10	17.9	0.9	.10			.10				.10				
.20	3.3	0.60	.20	18.8	0.9	.20			.20				.20				
.30	3.9	0.60	.30	19.7	1.0	.30			.30				.30				
.40	4.5	0.70	.40	20.7	1.1	.40			.40				.40				
.50	5.2	0.70	.50	21.8	1.2	.50			.50				.50				
.60	5.9	0.70	.60	23.0	1.2	.60			.60				.60				
.70	6.6	0.70	.70	24.2	1.8	.70			.70				.70				
2.73 .80	7.3	0.70	.80	26.0	1.8	.80			.80				.80				
2.83 .90	8.0	0.70	.90	27.8	1.8	.90			.90				.90				

Allowable Range Table

G.H. Range

NOTE GAUGE CORRECTION. +0.15

Period of Use : APR. 9 1979 →

Remarks :

Environment Canada / Environnement Canada

Water Management / Gestion des Eaux

Our File No / Notre dossier 2642-1

Your File No / Votre dossier

FROM: K.H. BARKER, O.I.C.
WATER SURVEY OF CANADA.,
1251 - 12TH ST. KAMLOOPS

May 13, 1980.

TO

ED SHAW, ENG.
WATER MANAGEMENT SERVICE,
523 COLUMBIA ST.
KAMLOOPS, BC
V2C 2T9

Dear Sirs:

In answer to your request of May 13 19 80,

we are supplying the following data:

1 - PHOTO COPY OF TABLE Nº 6 FOR ROBBINS CREEK ABOVE DISDERO CREEK, ± 08LE078; THE PURPOSE IS FOR STREAMFLOW MONITORING.

Yours sincerely,

K.H. Barker

FOR. District Engineer.

Encl.

c.c. Water Survey of Canada,
Vancouver, B.C.

WM – 1002

File 045-R

October 15, 1979

where has this letter been for 3½ months?

Water Rights Branch
Regional Office
523 Columbia St.,
Kamloops, B.C. V2C 2T9

Att. H. Van Camp

Dear Sirs -

RE Robbins Creek Water Licences

With reference to your letter of October 4, 1979 suggesting the appointment of a Water Bailiff , it is the opinion of the undersigned that such an appointment is not necessary under our present situation.

This area has just completed one of it's driest irrigation seasons in it's history without any significant confrontations we are aware of.

The recent expansion and replacement of the Disdero Lakes Storage Dam appears to have solved the majority of problems which arose in the past.

Yours truly ,

[redacted] s.22

Province of British Columbia

MEMORANDUM

KAMLOOPS D.E.

To: Mr. J.E. Farrell
Deputy Comptroller of Water Rights
Water Management Branch

Date: November 2, 1979

File: 0256957

045-R

Fr: H.I. Hunter, Chief
Hydrology Division
Water Investigations Branch

Re: Robbins Creek

As requested, a hydrology study has been completed for the above creek. The results are attached.

for H.I. Hunter, Chief
Hydrology Division
Water Investigations Branch

Attach.

Copy to RE Kamloops

JEF 14/05/79

Province of British Columbia

MEMORANDUM

To: Mr. C.H. Coulson, Head
Surface Water Section
Hydrology Division
Water Investigations Branch

Date: October 31, 1979

File: 0256957

Re: Robbins Creek Study

Reference is made to the July 11, 1979 memorandum of J.E. Farrell, Deputy Comptroller, Water Rights Branch, requesting a review of a report prepared by Terra Engineering Laboratories Ltd., dated February 27, 1979, and sent to Mr. D.E. Smuin, Regional Engineer, Kamloops. This report was reviewed and an independent study was conducted by Mr. S.G. Reynolds to determine the water yield above the proposed diversion site on Robbins Creek (at hydrometric station 8LE078), and the storage requirements for the existing irrigation demand and proposed 100 acre-foot downstream diversion.

The Hydrology Division study included a frequency analysis using records of Robbins Creek (8LE022). The missing April records of 8LE078 were estimated using Robbins Creek (8LE022) and Bolen Creek (8LE001) records. The 1-in-5-year drought April-September volume runoff at the point of diversion on Robbins Creek into Little Disdero Lake was estimated to be 1160 acre-feet. A required storage capacity of 540 acre-feet at the end of June was estimated to meet existing seasonal licensed irrigation demand (993 acre-feet). Total diversion of Robbins Creek into the reservoir was assumed and an adjustment for net lake evaporation was made. The present full pool storage is given as 519.5 acre-feet, making Little Disdero Lake storage 20 acre-feet too low for a 1-in-5-year drought. However, with the existing storage a surplus of 145 acre-feet occurs in May which is spilled and would be available to supply the proposed diversion of 100 acre-feet (assuming the extra storage is provided).

W. Obedkoff
Senior Hydraulic Engineer
Surface Water Section

WO/js

C 31 Oct 79

045-R

Measurements on Robbins Cr. Aug 7/79

No flow into Little Diadem from Robbins Cr.

Flow in Robbins Cr. above Little Diadem outlet. =
= .026 cfs.

Flow from Little Diadem Lk. 2.62 cfs.

Flow in Robbins Cr. below [redacted] (@ gas pipeline crossing) 1.5 cfs.

Storage in Little Diadem Lk has dropped ≈2'

045-R.

MEASUREMENTS ON ROBBINS CR. July 12/79.

Weir above road just U/S of Little Disdero Div.
Weir reading = 0.25' Weir @ Vertical angle of 26½°
∴ reading = 0.22' Weir is 2' wide, metal edged with full contractions.

∴ Flow = 0.671 cfs

Staff guage above culvert = 1.90' STA. 08LE078.
1.3 cfs.

Measurement of outflow from Little Disdero Lk. = 800' D/S of Dam. = .0048 cfs.

Measurement of Robbins Cr. 300' D/S OF JUNCTION WITH OUTFLOW FROM LITTLE DISDERO.
7.50" over 90° V-Notch = 0.7495 cfs.

MEASUREMENT OF Robbins Cr. BELOW [redacted] (@ NAT. GAS PIPELINE)
6 7/8" over 90° V-Notch = 0.6256 cfs.

Check again week of July 30/79.

0178011, 0281383
0290944, 0265075
0281382, 0116666
0310293, 045-R

523 Columbia St.,
Kamloops
V2C 2T9

August 5th, 1976

[redacted]
s.22

Dear Sirs:

RE: ROBBINS CREEK

In view of the near record rainfall of the past week and the resulting improved flows in Robbins Creek, permission is hereby granted to resume irrigation until further notice.

Yours truly,

D.E. Smuin, P.Eng.,
Regional Engineer.

Per: Paul W. Clarke, P.Eng.

PWC/js

cc: [redacted]
s.22
Comptroller of Water Rights, Parliament Bldgs., Victoria, B.C.

0178011, 0281383
0290944, 0265075
0281382, 0116666
0310293, 045-R

523 Columbia St.,
Kamloops
V2C 2T9

July 8th, 1977

s.22

Dear Sirs:

Re: ROBBINS CREEK

Recent investigation of the base flow of Robbins Creek indicates that there is now insufficient water to satisfy the prior water licences of s.22 s.22 Storage water held under licence by s.22 in Little Disdero Lake, is being released in support of their diversion licences.

Since you do not have storage water in Little Disdero Lake which you can now use, and since the base flow of Robbins Creek is insufficient to allow diversion by you, you are instructed to forthwith cease diverting and using water from Robbins Creek for irrigation purposes.

If you have any questions concerning the above, please contact my office.

Yours truly,

D.E. Smuin, P.Eng.,
Regional Engineer.

DES/js

c.c. s.22 - 0241428, 0241431 and 0258987
s.22 0241429 - Now
s.22 0309714
Now s.22 s.22 0316577 s.22
Comptroller of Water Rights, Parliament Buildings, Victoria,B.C.

** s.22 0316577
0241432

5th July 74

Don

Inspection of water situation on Robbins Cr. was carried out on July 4th/74. The following information indicated that [redacted] s.22 has no valid claim

① Upper weir (18") has 2.9" of water flowing over it, ie 215 gpm.
② Diversion into Little Disdero Lake closed.
③ Little Disdero Lake is full to the spillway crest but sluice is closed.
④ No licencee appears to be using more sprinkler heads than permitted.
⑤ [redacted] s.22 is diverting into [redacted] s.22 ditch and now has a new pump and sprinkler set up running about 30 heads.
⑥ Robbins Cr has a flow of 60-65 gpm going into Monte Cr.

Noted
10 July 74.

District Engineer

Water Rights Branch,
Kamloops, B. C.

Kamloops, B. C.

July 6, 1970

045-R

On 30 June 1970, in response to a complaint of shortage of water received from s.22 on 29 June 1970, I inspected water use from Robbins Creek and found:

a) The dam at east end of Little Disdero Lake was full - nearly to height of spillway invert- and 0.28 cfs of water being released through sluice-gate. No water was being diverted into storage from Robbins Creek.

b) The flow in Robbins Creek at the site of the gauging station was measured at approximately at 0.7 cfs.

c) s.22 was irrigating using ground water from drainage ditches.

d) s.22 had approximately 24 sprinklers going.

e) All the flow at diversion point B, WR map 3690, was going down s.22 's ditch. There was no proper weir board but there was a depth of 3 inches over a width of 21 inches flowing at the concrete inlet to s.22 ditch. This would appear to be nearly the flow required to fulfill s.22 licensed quantity.

f) No other licensees were irrigating from Robbins Creek.

g) During subsequent conversation in this office on 3 July with s.22 s.22 they mentioned that the sluicegate at Little Disdero Lake had been opened to allow more flow from storage.

h) No further action appears warranted at this time.

H. Van Camp,
Assistant District Engineer.

HVC/prg

GOVERNMENT OF BRITISH COLUMBIA

MEMORANDUM

TO District Engineer

FROM H. Van Camp

May 22, 19 70

SUBJECT

OUR FILE 045-R

YOUR FILE

On May 5, in company with D. MacKinlay, I inspected water use from Robbins Creek and found:

a) An estimated 1½ to 2 cfs was being diverted by s.22 at diversion point B, WRM 3690. The weir board for s.22 diversion is no longer capable of giving an accurate reading and should be repaired.

b) s.22 no longer uses the same ditch as s.22, but instead uses the old channel from point B to a pumping pond. He was only getting enough to run his sprinklers 4 - 5 hours on the previous day.

c) s.22 s.22 were not irrigating yet.

d) There was no flow going down ditch from diversion point J, WRM 3690. Diversion structure is in need of repair. The ditch has been filled in at numerous places (12 - 15) by logging operations. Slash has been left in the ditch along 200 - 300 yards of its length. Reservoir is not being filled and water level is approximately 1½ feet below level of the bottom of the sluiceway.

e) The dam at point E, Little Disdero, WRM 3701, is in need of repair to the control structure for the sluiceway. It is closed and no water being allowed out. Water level is about 6 inches above top of sluice gate. The trash rack had been removed and left on shore. An estimated flow of 20 - 30 gpm was being diverted to Little Disdero Lakes at point B.

f) The weir immediately upstream from point B, is in-operable, as the banks have been eroded around both ends of it. The gauge is tilted and therefore unreliable.

g) At diversion point F s.22, WRM 3701, an estimated flow of 2 to 3 cfs was being diverted down channel of West Robbins Creek and the gate for s.22's diversion had been completely closed. Since the amount being diverted down West Robbins Creek, and hence used only by s.22, was two to three times in excess of his licensed quantity, I opened the gate to s.22's diversion approximately 1 inch. As we were leaving the area we met a s.22, an employee of s.22, who had been sent to investigate the stoppage of flow. I explained the situation to him and left the area while he proceeded to view the works for himself.

H. Van Camp

[redacted]

no water for 10 days.

[redacted]

[redacted] — 1 pump.

[redacted] — using

[redacted] — not

4960

FL 4249	4961
4839	4962 ✓
5950	4960.
5951	4964
5952	4963.
4837.	4965 ✓

(1) Dam - Desdemo Full - nearly to spillway invert
29" below sluice control structure

(2) (No) diversion into it.

(3) - 5" over V notch out sluicegate.
= 0.2840 cfs = 0.5632 AC-FT/DAY
= ~~70~~ AC-FT/120 DAYS
or 50 " " /90 "

(4) Robber Creek Gauge - 2½" over 24" [illegible] weir
≈ 0.625 cfs
(w/o End Cont) = or 0.70 cfs
= 166 AC-FT/120 days
= 125 AC FT/90 days

(5) Total = 236 AC-FT/120 DAYS or 175 AC-FT/90 days

Tp 19, R 15

S 1/2 SW 1/4 Sec 24 [redacted]
L. S 13 Sec 13 " "
L. S 16 Sec 14 " "

[redacted]

3 July 1970.

[redacted]

Enquired about application to irrigate more land

Advised more storage would be required or possibly could cover more area with present license if changed to sprinkler irrigation.

May be in later again during summer to enquire further.

District Engineer

H. Van Camp

May 22, 70

045-R

On May 5, in company with D. MacKinlay, I inspected water use from Robbins Creek and found:

a) An estimated 1½ to 2 cfs was being diverted by s.22 at diversion point B, WRM 3690. The weir board for his diversion is no longer capable of giving an accurate reading and should be repaired.

b) s.22 no longer uses the same ditch as s.22, but instead uses the old channel from point B to a pumping pond. s.22 was only getting enough to run his sprinklers 4 - 5 hours on the previous day.

c) s.22 s.22 were not irrigating yet.

d) There was no flow going down ditch from diversion point J, WRM 3690. Diversion structure is in need of repair. The ditch has been filled in at numerous places (12 - 15) by logging operations. Slash has been left in the ditch along 200 - 300 yards of its length. Reservoir is not being filled and water level is approximately 1½ feet below level of the bottom of the sluiceway.

e) The dam at point E, Little Disdero, WRM 3701, is in need of repair to the control structure for the sluiceway. It is closed and no water being allowed out. Water level is about 6 inches above top of sluice gate. The trash rack had been removed and left on shore. An estimated flow of 20 - 30 gpm was being diverted to Little Disdero Lakes at point B.

f) The weir immediately upstream from point B, is in-operable, as the banks have been eroded around both ends of it. The gauge is tilted and therefore unreliable.

g) At diversion point F s.22, WRM 3701, an estimated flow of 2 to 3 cfs was being diverted down channel of West Robbins Creek and the gate for s.22 's diversion had been completely closed. Since the amount being diverted down West Robbins Creek, and hence used only by s.22, was two to three times in excess of his licensed quantity, I opened the gate to s.22 's diversion approximately 1 inch. As we were leaving the area we met a s.22, an employee of s.22, who had been sent to investigate the stoppage of flow. I explained the situation to him and left the area while he proceeded to view the works for himself.

1) s.22 be instructed to repair weir at "B" - 3690, and s.22 should also have a weir ator near "B".

D. E. Smuin, P. Eng.

Memo to D.E. July 10, 1968.

In response to several enquiries concerning water use on Robbins Creek, I inspected this source and my findings were as follows:

1) An estimated 34 cfs was discharging from Robbins Creek into Monte Creek.

~~2) At [redacted] point of diversion there was no water.~~

2) 0.09 cfs into [redacted] ditch, no water in creek immediately below this ditch.

3) [redacted] was hoeing, no sprinklers

4) [redacted] etc were not irrigating

5) [redacted] had pipes assembled but not irrigating

6) Little Desdero was recently opened (2 hrs)

7) 0.30 cfs at weir above ~~the~~ diversion to Little Desdero Lake.

8) [redacted] ditch was wet, but was not diverting from Robbins creek - some flow downstream in Burns Creek.

~~9)~~

~~Conclusions~~ Conclusions,

1) The natural flow in Robbins creek is only sufficient to supply the senior summer licences on the creek - all other licences should not be diverting or be maintained by releases from storage.

E. D. A.

STORAGE ON LITTLE DISDERO LAKE.

LICENCE	PRIORITY	QUANTITY	LICENCE	FILE
F4840	22 FEB '09	74 Ac ft.	s.22	4962
F4838	22 FEB '09	67 Ac ft		4965.
TOTAL STORAGE		141 Ac ft. *		

DOWNSTREAM LICENCEES.

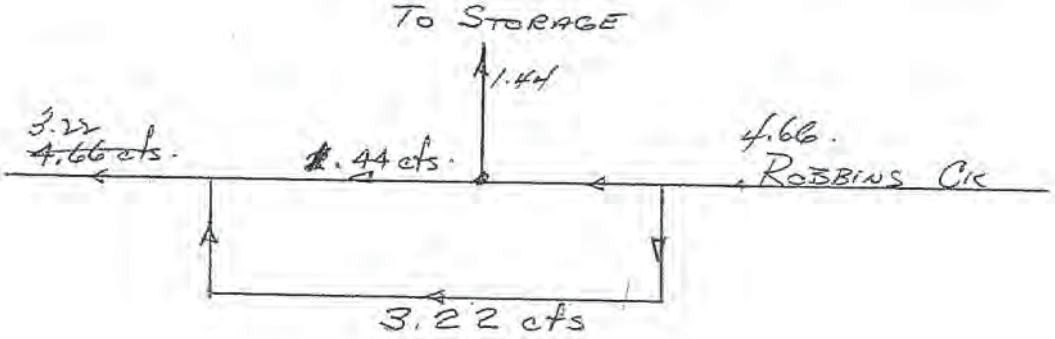
a) PRIOR LICENCES.

LICE. No	QUANTITY DIVERTED	CREEK LOSS	REQUIRED CK FLOW
F4249	0.34 cfs.	0.17 cfs	0.51 cfs.
F4839	0.93 cfs	0.42 cfs.	1.35 cfs.
F15303	0.17 cfs	0.09 cfs	0.26 cfs.
F4837	0.73 cfs	0.37 cfs.	1.10 cfs.
		TOTAL	3.22 cfs

b) JUNIOR LICENCES.

LICE No	QUANTITY DIVERTED	CREEK LOSS	REQUIRED CK FLOW
F 5801	0.20 cfs	0.10 cfs.	0.30 cfs.
C 17781	0.76 cfs.	0.38 cfs.	1.14 cfs.
			1.44 cfs.

* LICENCE No 17788 (FILE4968) PERMITS s.22 TO STORE 150 Ac ft PER ANNUM ON LITTLE DISDERO LAKE WHEN & THE EXISTING DAM IS RAISED.
PRIORITY DATE OF THIS STORAGE LICENCE IS MAY 1, 1946 OR JUNIOR TO ALL THE ABOVE LICENCES.



ROBBINS CREEK REGULATION.

LICENCE No F 5952 FILE No 4963

LICENCEE s.22 MAP No 3701-F

LICENCED QUANTITY 263 (SUPP) Ac ft IN 100 DAYS.
OR 1.33 cfs.

EST DITCH LOSSES. NIL cfs

TOTAL DIVERSION 1.33 cfs.

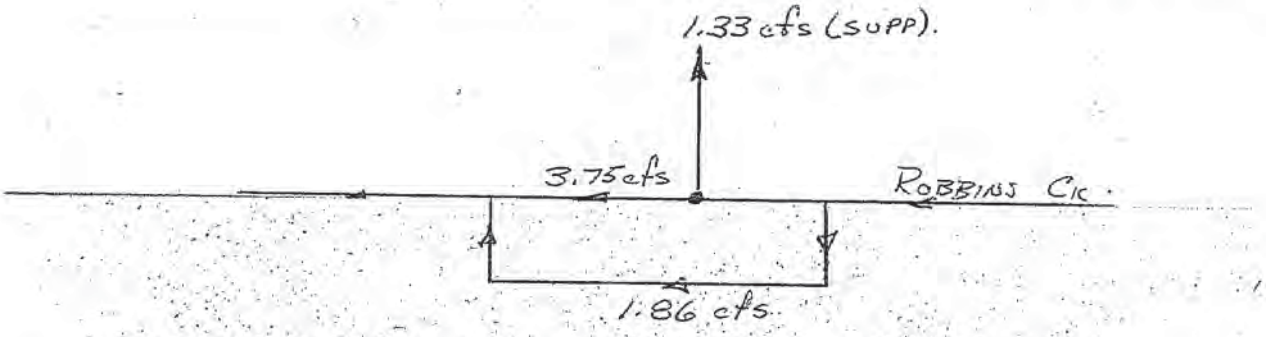
DOWNSTREAM LICENCES

a PRIOR.

LICE No	QUANTITY DIVERTED	CREEK LOSS	REQUIRED CK FLOW
F4249	0.34 cfs	0.17 cfs	0.51 cfs
F4839	0.93	0.42	1.35
		TOTAL	1.86 cfs.

b JUNIOR

F 5951	0.90 cfs	0.05 cfs.	0.95 cfs.
F15303	0.17	0.09	0.26
F 4837	0.73	0.37	1.10
F 5801	0.20	0.10	0.30
C17781	0.76	0.38	1.14
		TOTAL	3.75 cfs.



ROBBINS CREEK REGULATION

LICENCE No F5951 FILE No 4964

LICENCEE s.22 MAP No 3701-H

LICENCED QUANTITY 160 Ac ft IN 90 DAYS
OR 0.90 cfs.

EST DITCH LOSSES. NIL cfs

TOTAL DIVERSION 0.90 cfs.

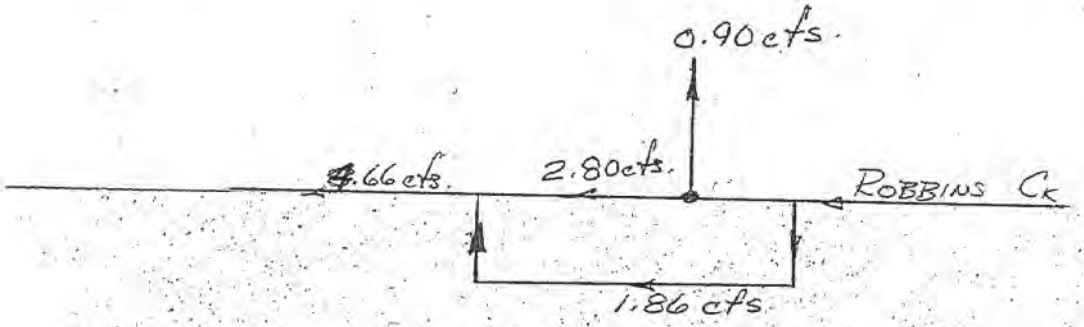
DOWNSTREAM LICENCEES

a PRIOR

LICE No	QUANTITY DIVERTED	CREEK LOSS	REQUIRED Ck FLOW
F4249	0.34 cfs	0.17 cfs.	0.51 cfs.
F4839	0.93 cfs.	0.42 cfs	1.35 cfs
		TOTAL	1.86 cfs.

b JUNIOR

F15303	0.17 cfs	0.09	0.26 cfs.
F4837	0.73	0.37	1.10 cfs.
F5801	0.20	0.10	0.30 cfs.
C17781	0.76	0.38	1.14 cfs.
		TOTAL	2.80 cfs



Province of
British Columbia

Ministry of
Forests

Ministry of Forests
1265 Dalhousie Drive
Kamloops, British Columbia
V2C 5Z5
Tel: 371-6500 Fax: 828-4627

File: 12290-02

February 21, 1995

M. Edward
Ministry of Environment, Lands and Parks
1259 Dalhousie Drive
Kamloops, British Columbia
V2C 5Z5

Dear Sir:

Thank you for your letter dated February 13, 1995 requiring a watershed assessment for Robbins Creek Watershed.

The Watershed Assessment Procedure (W.A.P.) has not been published or finalized yet. It is the responsibility of the forest developer to perform the W.A.P. upon request by the District Manager in community watersheds, high fishery sensitive watersheds and any other watershed the District Manager requires. The Ministry of Forests will be conducting the necessary W.A.P. for Small Business and serve a coordinating role in watersheds where two or more licensees operate.

The Kamloops LRMP provided government agencies a priority list (enclosed) for planning and watershed assessment procedures. After community watersheds, this is the list we will use to direct our efforts.

At this time, I am not instructing any licensees to perform W.A.P. until the procedure has been finalized and published.

A brief look at the Robbins Creek Watershed indicates most of the post and proposed harvesting has been selection logging. Much of the clearcut around Little Diserdo Lake has been on private property.

.../2

In conclusion the Robbins Range Creek watershed is a low priority for a watershed assessment. Once we have met our LRMP obligations, we will concentrate on lower risk watersheds.

We should probably meet to discuss this further once the Watershed Assessment Procedure is finalized.

Yours truly,

Peter R. Lishman
Operations Manager

Enclosure

cc: Gord Kosakoski, Department of Fisheries and Oceans, Kamloops

Province of
British Columbia
Ministry of
Environment,
Lands and Parks

BC Environment

Southern Interior Region
1259 Dalhousie Drive
Kamloops
British Columbia
V2C 5Z5
Telephone: (604) 371-6200

File:76800.20\Robbins Creek

February 13, 1995

District Manager
Ministry of Forests
1265 Dalhousie Drive
Kamloops, BC

Dear Sir:

Re: Robbins Creek Watershed

Concern has been expressed to this office by some of the 28 water licence holders on Robbins Creek regarding the effects of logging in the upper watershed on their water supply. In particular, there is concern that the freshet period has been advanced and shortened.

A review of the Tolko Industries Ltd. 1993 Development Plan Supply Block 4 (East) map indicates extensive logging has been done over the last 15 to 20 years in the upper watershed (ie. above the 950m elevation). As the licensees' diversion point into their storage reservoir, Little Disdero Lakes, has an elevation of 940m it is important that the timing and volumes of the freshet runoffs are not altered.

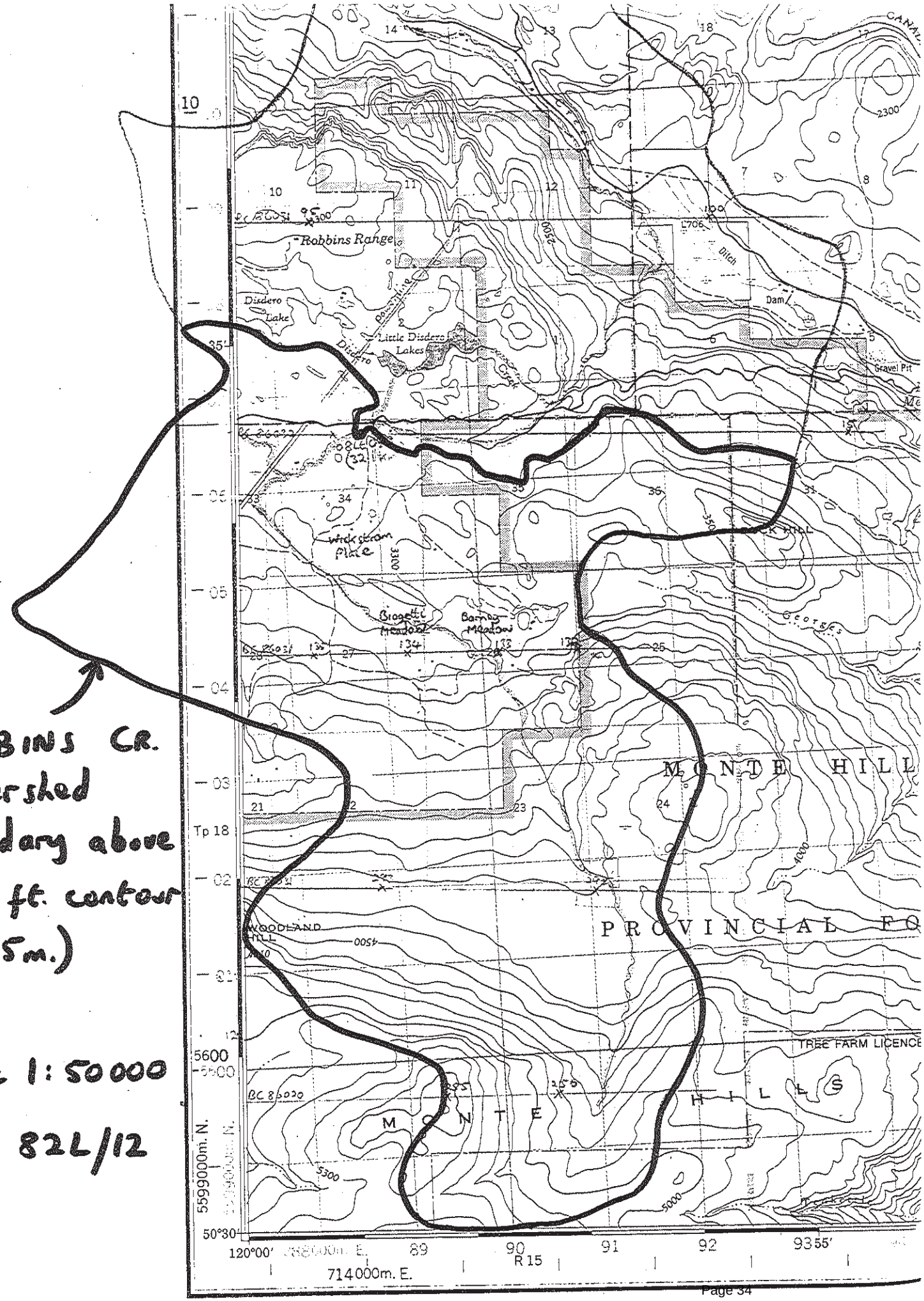
Would you please provide a Watershed Assessment for the Robbins Creek watershed with regard to the hydrological impacts of past and future logging activities. A 1:50 000 map is attached showing the Robbins Creek watershed and the areas of concern.

Yours Truly,

M. Edwards

M. Edwards
Water Management Officer

ME\mab



ROBBINS CR. watershed boundary above 3100 ft. contour (945m.)

Scale 1:50000

Map 82L/12

Ftown 6800.20/ Robbins Cr.

NOTES

Memo to: Mike Edwards Aug. 6'96

s.22

- has purchased some property on Robbins creek (160 ac.) @ s.22 s.22 neighbours: s.22 have dammed the creek (one chan.) & no water is flowing through s.22 property. The dam is not in place year round - only summer.

I noted there may be a licence involved? But I would have Mike Edwards call him when he gets in. s.22 noted he has not signed the papers yet & has to sign by today or tomorrow. I noted I would do what I could & Mike or I would get back to him no later than Aug. 7'96.

Bob

SE¼ has subdivided into many parcels

Work done on Parcel 7

Phoned s.22 who said the creek washed out its bank this spring & flooded a meadow. He sent a hired-hand to plug the bank and put the channel back the way it was.

M. E Aug 7/'96

On Aug 9/'96 I met w/ s.22 & asked her to tell s.22 to remove earth plug at Biagetti Meadow.

File: 76950-04
Robbins Cr.

Water Management Branch
RECEIVED
DEC 12 1996
KAMLOOPS, B.C.

R.R. #2 S-7 C-1
Kamloops, BC V2C 2J3

December 8, 1996

Ministry of Environment
Water Management Branch
1259 Dalhousie Dr.
Kamloops, BC V2C 5Z5

Attention: Mike Edwards

Dear Mike:

I have enclosed a copy of some of the time I spent monitoring Robbins Creek for 1996. I have not recorded all the neighbourhood trips I have made checking the irrigation activity on a regular basis.

The mileage to Disdero Lake and return from my home is 38Km and every trip takes atleast one hour.

Not all the water users that were billed for last year's cost incurred have paid me. I have not heard from:

s.22 for $102.19
for 16.09 (they have moved)

There is major work to be done at the diversion and I have talked to s.22 about doing the work earlier this fall. I have S22 and cannot do the necessary repairs at this time.

I feel that the Bailiff Compensation Fee should be at least $10.00 per hour and even that is below cost.

Due to the cold and rainy weather of this past summer there was ample water to fill all requirements for this year.

Sincerely,

Harold Sample

Harold Sample, Water Bailiff
for Robbins Creek

Enclosure

1996 WATER CONTROL FOR ROBBINS CREEK:

April 14 - check water flow into storage lake and clean debris from diversion ditch. 4 hours

April 22 - check on water going into lake. The lake is almost full. Open road into lake. 2 hours

April 28 - s.22 helped to clean out debris from spillway at lake. The lake is full and going over spillway. 4 hours

May 4 - Shut off water going into lake. 2 hours

6 - phoned neighbours to get the rest pumping the water going to the river. 1 hour

**No one is pumping on a regular basis, due to excessive rain and it has been too cold all month of May.

June 1 - 2 trips to diversion and lake. The creek is extremely high (due to RAIN). Repairs at diversion with sandbags and check lake. 5 hours

June 9 - s.22 etc have started to fill their storage lake.

June 29 - s.22 's pond is full and they have shut off. Only s.22 s.22 are pumping. Everyone else is down for haying between rain.

July 3 - s.22 are again pumping into their pond. Asked them to shut off.

July 7 - check on storage lake. Still full 2 hours

8 - Open lake, s.22 wants to turn on 80 heads. 1 hour

9 - s.22 complaining about s.22 pumping from creek. I shut off s.22 's pump. 1 hour

July 13 - s.22 has key.

July 21 - s.22 says she is out of water but everyone below is still pumping.

July 26 - no water for s.22 to pump. Shut s.22 off for over pumping and open lake. 1.5 hours

July 29 - too much water going past. s.22 has few pipes going, s.22 pipes are sort of going? Turn lake back. 1 hour

Aug. 4 - Turn lake back, raining again and some are trying to hay 1 hour

Aug. 11 - up to check diversion and lake. Culvert was plugged on road into lake-remove debris. 2 hours

Aug. 18 - shut back lake and shut off s.22 1 hour

Aug. 21 - s.22 phoned-he bought 1/4 section on Robbins Range and feels he has water running through his property from our creek.

Aug. 30 - s.22 says not enough water for her to pump. s.22 is shutting off 63 heads. Most pumps are off.

Sept. 17- s.22 shut lake off for year.

Note: There is repair work to be done at the diversion etc. s.22 will see that is gets done.

13 trips to lake x 38km = 494km
28.5hrs @ $10/hr

M.E.

File: 76950-04/ROBBINS CR.

R.R. #2 S-7 C-1
Kamloops, BC V2C 2J3

January 28, 1996

Ministry of Environment
Water Management Branch
1259 Dalhousie Dr.
Kamloops, BC V2C 5Z5

Attention: Mike Edwards

Dear Mike:

I have enclosed a calandar of how I spent my time monitoring Robbins Creek for 1995. I have not recorded all the neighborhood trips I made checking the irrigation activity everyday.

The mileage to Disdero Lake and return from my home is 38 km and every trip takes atleast one hour.

All the water users that were billed did pay their share of the costs incurred to me for 1994.

Please note there is more work required at the diversion to Disdero lake for this spring.

Could you please forward me an updated copy of all the Licences on Robbins Creek at present?

I hope you find the job done on Robbins Creek for 1995 satisfactory and I hope you will contact me if you have any concerns.

Sincerly,

R Harold Sample

Harold Sample, Water Baliff
for Robbins Creek

Enclosure

JAN 29 1996

30 trips to Disdero Lake x 38km = 1140km @ 36¢/km = $410.40
49 hours @ $8/hour = $392.00
Total = $802.40

Feb 7/96

away). s.22 back to 20 heads and s.22 only have 12 heads on. The creek is almost dry. 1 hour

July 20 to 21 - neighborhood patrol 1 hour

July 24 - Raining.

July 28 - turn lake back 1 1/2 turns because of rain. s.22 s.22 pipes back on. 1 hour

Aug. 2 - s.22 pipes off so shut off s.22 1 hour

Aug. 5 - Shut back lake due to rain. Only s.22 s.22 pumping. 1 hour

Aug. 7 - s.22 phoned-out of water. Up to diversion-lots of water going down creek. 1 hour

Aug. 8 - Check out s.22 's diversion-he needs to repair it (approx 100 heads going past his diversion). Raining. 1 hour

Aug. 13 - s.22 to remove trees obstructing gate at lake. Still raining. 3 1/2hrs

Aug. 15 - Check lake and diversion. 1 hour

Aug. 18 - Check lake still raining. 1 hour

Aug. 19 - s.22 turned pipes off-raining.

Aug. 26 - turn lake back 1 hour

Aug. 29 - not enough water for s.22 Open lake more. 1 hour

Sept. 5 - shut back lake- s.22 pump out for repairs. 1 hour

Sept.12 - open lake 1 turn- s.22 pump back 1 hour

Sept.16 - opened lake, only s.22 pumping. s.22 start pipes in AM but go off over night. 1 hour

Sept.17 - Only enough water for s.22

Sept.23 - turned lake down. 1 hour

Sept.25 - Asked s.22 to shut off. Everyone else off for year.

Oct. 7 - Shut lake off for year.

Oct. 19 - 2 phone calls to s.22 to ask permission to cross their land to do diversion repairs.

Oct. 12 - repair on diversion. (Haul sandbags & rocks to shore 4 hours

Oct. 24 - repair on diversion. up under diversion.) 4 hours

Nov. 18 - check on lake and diversion 1 hour

Nov. 25 - turned water off running into storeage lake 1 hour.

** note The diversion still needs more repairs.

***in reference to s.22 - using water this year, there was extra water due to this past summer rain fall but suggest they sort out thier own water problem for the future.

1995 WATER CONTROL FOR ROBBINS CREEK:

April 2 - check diversion to Disdero Lake, still frozen & full of snow but need to shore up right bank of creek at diversion. 1 hour

April 2 - [redacted] are pumping.

April 3 - put sandbags on right bank of diversion. 2 hours

April 14- [redacted] are pumping.

April 15- up to check diversion. Almost all creek running into lake. Creek is low as it has been cold. Checked lake. 1 1/2 hr

April 24- [redacted] are pumping; still cold.

April 27- Check on diversion and lake, at diversion-end of flume needs sandbags. Just enough water to keep existing pipes going, still too cold. 1 hour

May 4 - Check diversion again. Robbins Creek is flowing well. Enough water to cover all licences. Phoned Mike Edwards--what is happening with water licences in this valley; some have spilt into smaller licences? 1 1/2 hrs

May 10 - Check on lake and diversion. Need work done at diversion 1 hour

May 13 - Storeage lake is full. Asked [redacted] to start pipes. 1 hour

May 16 - Changed diversion so half water goes into lake and half is going down the creek. [redacted] still not pumping. [redacted] start up pipes but [redacted] pipes are off. Everyone else is pumping. 1 hour

May 25 - Robbins Creek dropped atleast by 1/2 last night- [redacted] pipes went off. [redacted] still not pumping, everyone else is.

June 4 - No water going past [redacted] (We have 22 heads running). [redacted] has pipes on. [redacted] went off today. Shut down [redacted] & shut [redacted] back 1 line. [redacted] water went off 8 pm. (2 neighborhood trips) 1 1/2 hrs

June 8 - Has been raining for 3 days. [redacted] pipes back on. Checked lake and diversion. Fixed leak at diversion. 1 1/2 hr

June 18 - Still raining and cold. [redacted] and [redacted] pipes off for haying. Check diversion & lake. 1 hour

June 29 - opened lake-2 1/2 turns. Asked [redacted] to shut off. [redacted] has a gun on-spent time explaining their water licence to them. [redacted] have 24 heads, [redacted] have their gun on, [redacted] pumping 7 heads and [redacted] pumping 2 heads- everyone else is off. 2 1/2 hrs

June 30 - opened lake another 1 1/2 turns. [redacted] pipes are om. 1 hour

July 1 - Opened up lake another 2 turns. All pipes on but [redacted]. 1 hour

July 8 - Has been raining. Turned lake back 2 1/2 turns. All pumping. 1 hour

July 18 - Opened lake 2 1/2 turns. [redacted] shut down 1 line. Asked [redacted] to shut off. [redacted] shut off ([redacted] says there is not enough water for them-- [redacted] is

File: 76950.04/Robbins Creek

R.R. #2 S-7 C-1
Kamloops, BC V2C 2J3

February 5, 1995

Ministry of Enviroment
Water Management Branch
1259 Dalhousie Dr.
Kamloops, BC V2C 5Z5

Attention: Mike Edwards

Dear Mike:

I have enclosed a copy of how I spent most of my time trying to regulate the water in Robbins Creek for 1994.

I also made numerous trips around the Water users to monitor the water situation in Robbins Creek that are not listed. I found the persons giving the most problems were the ones with no legal rights or small water rights.

The mileage to Disdero Lake and return from my home is 38 km and every trip takes a minimum of 1 hour to complete.

I am open to any suggestions as to how the water in Robbins Creek can be better managed.

Sincerely,

Harold Sample

Harold Sample, Water Baliff
for Robbins Creek

Enclosure

1994 WATER CONTROL FOR ROBBINS CREEK

April 12 - up to Desdero Lake- Water appears to be flowing okay into storeage lake. 1 hour

May 26 - Creek water is low. s.22 shut down a line. Shut off s.22 from pumping out of Robbins Creek. All 1st Licencees are pumping. 1 1/2 hr

May 29 - Opened Disdero Lake 1 hour

May 30 - Robbins Creek low. Shut off everyone.

May 31 - up to Disdero lake to let down more water. No one pumping except s.22 licence. 1 hour

June 2 - s.22 pumping. Creek low.

June 3 - Turn more water down at Lake. 1 hour

June 4 - Up to lake to shut off s.22 diversion 2 hours
all Licencees up to Rights No 3 are pumping.

June 5 - Too much water in creek. Has been raining all weekend. Up to Disdero lake to turn back water 1 hour

June 19 - turned Disdero Lake off - it has been raining 1 hour

June 22 - Opened Disdero Lake 1 hour

June 25 - turned lake back - still raining 1 hour

June 28 - turned lake back again - still raining 1 hour

June 30 - s.22 water went off.

July 1 - Opened up lake more 1 hour

July 5 - Filled sand bags (s.22 Helped) & put them at diversion as creek banks are eroding. 3 hours

July 6 - s.22 water went off overnight

July 7 - Turned down more water from lake 1 hour

July 9 - too much water in creek but s.22 will turn on-was off for haying.

July 10 - Turned water at lake back - s.22 is off for haying 1 hour

July 11 - Off s.22 Left lake key with s.22 . Everyone is pumping.

July 13 - s.22 opened lake more. s.22 is turning pipes back on. s.22 pipes have gone off. *****

July 16 - s.22 opened lake more. 1 hour

July 17 - opened lake 1/2 turn more. s.22 has been turning on 10 heads at night. They have been officially shut off on May 26. s.22 water has been going off overnight for the past week. 3 hours

July 18 - s.22 pump blew up. Turn lake back accoridingly 1 hour

July 19 - s.22 pipe went off.

July 20 - Turn lake back-most are haying 1 hour

July 25 - Turned lake back another 3/4 turn 1 hour

Aug. 7 - Turned lake back another 1 1/2 turns. s.22 is shutting off 2 lines. 1 hour

Aug. 8 - No water. s.22 went up to diversion. No water in creek. 1 hour

Aug. 13 - s.22 pipe are going off overnight.

Aug. 14 - Open lake and Shut off s.22 for yr. 1 hour

Aug. 15 - open lake another 1 1/2 turns. Shut off s.22 again. Enforced "legal" water rights on s.22 1 1/2 hr

Aug. 17 - s.22 opened lake 2 turns. *****

Aug. 18 - Far too much water coming in creek. Turned lake back 4 turns (appears gate has been tampered with) 1 hour

Aug. 20 - [redacted] water has gone off
to 22 [redacted] water off. Monitor water - cut everyone back on Licences #1 & 2 to 1/2. [redacted] shut off for year. [redacted] shut down to 1 line. Not enough water to keep [redacted] pump running-Shut off for year 3 hours

Aug. 24 - [redacted] phoned- who opened lake so much? Too much water in creek. [redacted] shut back lake again. (Jimmied gate??) 1 hour

Aug. 30 - Turn lake Back 1 turn. 1 hour
[redacted] still want water to pump. Everyone else is off for the year.

Sept. 24 - Filled sand bags and took up to diversion. 2 hours

Sept. 25 - [redacted] up to lake and check creek. [redacted] diverting creek water into Collin meadows. *****

Oct. 2 - shut lake off for year. 1 hour

Totals : 39 hours

29 x 38 km = 1102 km

Total fees = 39 x $8 + 1102 x $0.35
= $697.70

m.e

O R D E R

W A T E R A C T

Section 33

Being of the opinion that the Engineer for the Kamloops Water District is unable, in person, to regulate the diversion and use of water from Robbins Creek, I hereby appoint Mr. Harold Sample of R.R. #2, Kamloops, B.C. V2C 2J3 to be Water Bailiff for that purpose for the period of 1st April, 1981, to 30th September, 1981.

Dated at Victoria, B.C., this 9th day of March, 1981.

J.E. Farrell,
Deputy Comptroller of Water Rights.

FILE NO. 045-R

DATE 3 Mar 81

TIME

TELEPHONE/OFFICE INQUIRY

CALLING PARTY Harold Sample
Robbins Creek

PHONE NO.

SUBJECT

Harold Sample has offered to be Water Bailiff on Robbins Creek again.

He also said that Dissdens Lks was almost full and that there was water going to waste which should be turned into the [redacted] Ranches ditch.

ACTION TAKEN I said that we would recommend that he be declared Bailiff by the Comptroller and that any storage should be filled when the water is available as long as no one's rights are injured or the environment suffers.

SIGNED

045-R

ORDER

WATER ACT

Section 33

Being of the opinion that the Engineer for the Kamloops Water District is unable, in person, to regulate the diversion and use of water from Robbins Creek, I hereby appoint Mr. Harold Sample of R.R. #2, Kamloops, B.C. to be Water Bailiff for that purpose for the period 1st April, 1980, to December, 1980.

Dated at Victoria, B.C. this 15th day of May, 1980.

J.E. Farrell,
Deputy Comptroller of Water Rights.

DEPART NT OF LANDS, FORESTS, AND WATER OURCES
WATER RESOURCES SERVICE
PARLIAMENT BUILDINGS, VICTORIA, BRITISH COLUMBIA

0116666
0241429

COPY

December 31st, 1974

DEPT. OF LANDS, FORESTS & WATER RESOURCES
JAN - 6 1975
WATER RIGHTS BRANCH
KAMLOOPS, B.C.

Rogers, Hunter & Company
Barristers and Solicitors
400 - 153 Seymour Street
Kamloops, B.C.
V2C 2C9

Attention: Mr. W. J. Diebolt, your file #25185

Dear Sir: Re: s.22

I have for acknowledgement and reply, your letter of December 19th, 1974.

We have no information here regarding a shortage of water suffered by s.22 during the irrigation season of 1972, allegedly as a result of an unauthorized diversion and use by s.22, other than a copy of a letter dated August 1st, 1972 from Kamloops District Engineer Mr. D. E. Smuin, to s.22. Among other things, this letter mentioned that when his complaint of water shortage was investigated on July 27th, 1972, s.22 was receiving a flow of approximately 1.0 c.f.s. at his authorized point of diversion for Final Water License 4839, compared to his calculated entitlement of 0.65 c.f.s.

This matter has been discussed with Mr. M. L. Zirul of my staff who signed the letter of July 20th, 1973 over my name. The information contained in the letter was obtained by telephoned reference by Mr. Zirul to our Kamloops office and the letter replied to an undated letter from s.22 received here on July 16th, 1973. Copy of s.22's letter and a copy of the letter dated the 11th July, 1973 from Kamloops District Engineer D. E. Smuin to s.22 are enclosed for your reference. I also enclose a copy of a letter written over my name on the 23rd July, 1973 to s.22.

Neither Mr. Zirul, who handled the correspondence above referred to, or I, have direct knowledge of the alleged unauthorized diversion and use of water by s.22 referred to in your letter, or of resulting crop losses suffered by s.22. I regret I am unable to add further to the information contained in the enclosures.

Yours truly

H. D. DeBeck
Comptroller of Water Rights

Enclosures
MLZ/dc
cc Mr. D. E. Smuin, District Engineer, Kamloops, B.C.

Rogers, Hunter & Company

David Rogers
Les Jelsen
David L. Clarke
N. Bruce Kullin
H. Lyle Brown

Robert B. Hunter
M. Douglas Howard
Brian D. Ross
William J. Diebolt

Barristers and Solicitors
Centennial Building
1100-153 Seymour Street
Kamloops, B. C.
V2C 2C9

Telephone 372-5542
Telex 048-81911

In reply please refer to: Mr. W.J. Diebolt
File #25185

DEPT. OF LANDS, FORESTS AND WATER RESOURCES
WATER R.S.

DEC 24 1974

MAIL ROOM
VICTORIA, B. C.

DEPT. OF LANDS, FORESTS & WATER RESOURCES
JAN - 6 1975
WATER RIGHTS BRANCH
KAMLOOPS, B.C.

Mr. H.D. DeBeck
Comptroller of Water Rights
Department of Lands, Forests
and Water Resources
Water Rights Branch
Victoria, B. C.

December 19, 1974

Dear Sir:

Re: s.22
Your File #0241429

Pursuant to our telephone communication of December 19th please be advised that s.22 has commenced an action against s.22 and s.22 says that s.22 took water from Robins Creek, ditching it into a slough and from that point pumping the water to other land higher up thus irrigating about 60 acres which s.22 claims s.22 was not entitled to, thus drying up water that otherwise would have been available to s.22 was away at the time of this occurrence and was unable to do anything about it. This was during the summer of 1972 up to September 15, 1972 and apparently s.22 got three crops from the use of this water which s.22 was not entitled to and s.22 as a result of the loss of water suffered a deminuation in s.22 expected crop.

s.22 has advised the writer that you are familiar with this problem and could shed some light upon the aforementioned problems. Accordingly, we are enclosing a copy of a letter to s.22 of July 20, 1973 under your name. We would appreciate your reply at your earliest convenience indicating what, if anything, you know concerning the allegations of s.22 as expressed in the writer's letter, and what comments you could make regarding the letter of July 20, 1973 which is enclosed.

...ater & Company

Your earliest attention in this matter would be appreciated in order that we may communicate your comments to [redacted].

Yours truly,

ROGERS AND COMPANY

Per: W.J. Diebolt

WJD/dsb
Enc.

DEPT. OF LANDS, FORESTS & WATER RESOURCES
JAN - 6 1975
WATER RIGHTS BRANCH
KAMLOOPS, B.C.

0330131
0330130
0327155

RFNF

[redacted] s.22

Oct 28 – 1976

To the Comptroller of Water Rights. Victoria B.C.

Dear Sir

Re the application of Water Right

by [redacted] s.22

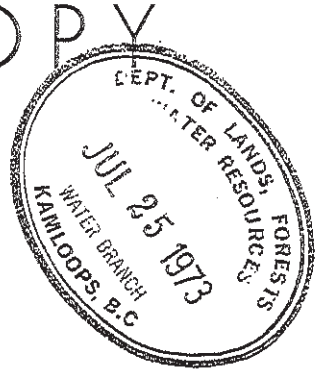
I am against it as we had plenty trouble the past 7 years. 3 years ago I lost praticaly all my hay crop I took the matter in court but could not prove the lost of the hay so I witdrew the case. This is taking place every year. and unless that we have some body to look after the water we will be the victim of the future as in the past. This past season we been advise by the water right branch to make sure and save the water. We did so by moving the snow we made a good job but in july with the steady rain there was to much water as thing I never saw in the past [redacted] S22 years that have been on the Ranch that much water and chance that I never will see again

Yours very truly [redacted] s.22

DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
PARLIAMENT BUILDINGS, VICTORIA, BRITISH COLUMBIA

0116666
0241429

COPY



July 23, 1973

s.22

Dear Sir:

Receipt is acknowledged, of your application dated July 5th, 1973 for a Change of Works in respect of Conditional Water Licence 35254, Robbins Creek (storage on Little Disdero Lakes) and $5.00 amendment fee.

Since the storage on Little Disdero Lakes is jointly held by other licensees, we will require that you serve a copy of your application for Change of Works on each. According to our records, the names and addresses of these licensees is as follows:

1.
2.
3.

s.22

Three Xerox copies of your application are enclosed for your use in carrying out this requirement.

Since the amendment applied for involves the siting of the storage dam on Little Disdero Lake a considerable distance downstream from that proposed by your engineers in 1967 and shown in their drawings of that date, we will require the submission of engineering data to indicate that construction at the proposed new site is feasible and that the required amount of water can be stored. This is in addition to the requirement already contained in Conditional Water Licence 35254 to the effect that construction of the dams authorized shall be in accordance with plans and specifications approved by the Comptroller of Water Rights. Will you kindly let us have the required engineering data as early as possible.

It will also be appreciated if you will advise if you have had any further discussions with the owners of the existing storage dam on Little Disdero Lakes and/or have reached any agreement with them regarding a joint involvement in construction of the proposed new dam and entitlement to the water to be stored.

..... 2

s.22

July 23, 1973

Relative to the foregoing, I believe you are aware that the granting of Conditional Water Licence 17787 to s.22 in 1947, and the use of water thereunder was conditional on the establishment of storage on Robbins Creek under Conditional Water Licence 17788 (now Conditional Water Licence 35254) to supply the amount of water required. Without the required storage, Conditional Water Licence 17787 is not usable except during such period when natural flow in the creek is in excess of the requirements of licences having earlier date of priority. Such period will only exist for relatively short duration during the snow melt or freshet season each year.

I have now been informed by letter received here on the 16th instant that you were still diverting water for use under Conditional Water Licence 17787 at a time when some users having licences of earlier priority than yours had been ordered to cease diverting and the licensees having storage on Little Disdero Lake were using water from this storage to supply their requirements.

I am aware that some water was stored from freshet flow of Robbins Creek on a meadow on NE ¼, Sec. 27, Tp. 18, R.15, W6M owned by you either by the action of beaver and/or efforts of yourself. I must point out, however, that no authority exists under any water licence to store water on the property in question. I must bring your attention to the provisions of Section 41 of the Water Act and advise that your action in continuing to divert from Robbins Creek at this time could result in a prosecution under Section 41 or a possible legal action by any person who considered he was deprived by your action, of water to which he was lawfully entitled. An excerpt from the Water Act, showing Section 41, is enclosed for your information. You should govern yourself accordingly.

Yours truly,

H. D. DeBeck,
Comptroller of Water Rights.

per:

Enc.

cc: District Engineer, Kamloops.

DEPT. OF LANDS, FORESTS & WATER RESOURCES
JUL 25 1973
WATER BRANCH
KAMLOOPS, B.C.

0241429

523 Columbia Street,
Kamloops

August 1, 1972

s.22

Re: Robbins Creek

Dear s.22

As a result of your telephoned complaint on or about Wednesday, 27 July, 1972 that there was improper diversion and use of water from Robbins Creek, an investigation of current use, together with streamflow measurements was made on the 27 and 28 July, 1972, and on 1 August, 1972.

During our investigation we noted the following:

(1) The base flow of Robbins Creek on 27 July, 1972 above the Little Diedre Lake diversion and excluding the water contributed to the base flow by the s.22 storage, was approximately 0.40 cubic feet per second or 180 Imperial gallons per minute. This quantity is insufficient to meet the requirements of prior licences then power, but held by s.22

(2) Storage water was being released from Little Diedre Lake but in quantity inadequate to satisfy your licence, Final Licence 4539 of 0.65 cubic feet per second (cfs) and Conditional Licence of 0.39 cfs (s.22).

(3) The quantity of water being diverted at your point of diversion was estimated to be about 1.0 cfs, or 0.35 cfs greater than allowed under your licence.

(4) It was noted that the control works for the release of water from Little Diedre Lake are to all intents inoperable and water releases can not be regulated with any accuracy or ease. In addition the spillway was poorly maintained in that it was choked with debris, and the sides had slipped off, partly blocking it.

.....2

[redacted] August 1, 1972

Page 2 - Cont'd.

In view of the above facts, I have not, and will not at this time, require [redacted] to cease irrigating, particularly since [redacted] irrigation requirements are being met from storage water. I do, however, direct that the Little Disdero Lake spillway be cleared of debris, immediately, and that the control works of the dam sluice gate be repaired or replaced at the end of the 1972 irrigation season. The above directions would not be necessary if you were to carry out normal maintenance of the dam and its appurtenances.

Yours truly,

D.E. Smith, P.Eng.,
District Engineer.

DES/rm

c.c. [redacted]

Comptroller of Water Rights, Victoria, B. C.

Copy for our file 0116666

0243428

523 Columbia Street,
Kamloops

August 1, 1972

[redacted] s.22

Re: Robbins Creek

Dear [redacted] s.22

Measurements of the base flow of Robbins Creek made on the 27th and 28th July, 1972 and confirmed on 1 August, 1972 indicate that there is insufficient water available to satisfy your licence requirements, which are calculated to be 0.41 cubic feet per second, or 154 Imperial gallons per minute. This quantity of water is normally sufficient to operate 31 Rainbird (3/16" nozzle) sprinklers.

As the water available for you is now about 0.25 cubic feet per second or 94 gallons per minute, you should not be operating more than 19 sprinklers. This number must, of course, be reduced as the base flow in Robbins Creek diminishes from day to day.

If you have any questions concerning your licences, please do not hesitate to get in touch with me.

Yours truly,

D.E. Smith, P. Eng.,
District Engineer.

DES/rm

c.c. [redacted] s.22

Comptroller of Water Rights, Victoria, B. C.

Copy for File 0116666

DES Re [redacted] COMPLAINT

Thursday 27 July — inspected works at pt of div of Robbins Creek into L. Disdero Lake and found them to be inoperable as stream bed has eroded underneath and left the diversion structure high & dry

— inspected gauge & measuring weir established by Ken Walker & crew about 200 yards upstream from div pt. Reading of 3.6" on 18" rectangular weir presumably indicates base flow of .5 to 0.9 cfs. Gauge reading about 50' downstream of weir was 0.82 but dont know how to interpret that.

— inspected dam on Little Disdero. Mechanism for sluice gate inoperable since brackets for wheel have come loose so that when the wheel is turned it merely runs up the screw thread instead of forcing gate to lift. I believe it was in same state 2 yrs ago. Presumably gate is opened by tugging on wheel or bashing it up with rock. About 1/2 cfs or less flowing out. Lake full and water might have trickled out of spillway if it wasnt plugged with small logs and sticks.

Friday 28 July — 3" flowing in 24" flume at div pt for [redacted] house)

— [redacted] operating about 24 sprinklers by gravity out of Robbins Creek and another 24 by pumping out of ditch

— about 30-40 gpm. flowing in Robbins Creek below [redacted] fields, at confluence with Monte Creek

— [redacted] away having so advised [redacted] not to worry unless we phoned back.

I got back too late to phone [redacted] — may be you wish to — or let it pass on basis complaint was not justified.

K. Vanlaerhoven

Mr. H.D. DeBeck,

Cc roller of Water Rights, Victoria, B. C.

District Engineer, Kamloops, B.C.

July 14 66

CL 17787, Robbins Creek, Irrigation; 4968
CL 17788, Robbins Creek, Storage in Big Disdero Lake; 0116666
Appl'n for C/W dated Sept.1960 filed by s.22
Appl'n for C/W dated June 1963 filed by
Appl'n for C/W dated 20 Dec. 1963 filed by s.22

History:

I would refer you to the following history behind CL 17788:

(1) Letters by s.22 and Comptroller dated March 6 and March 13, 1946. The circumstances leading to the hearing in 1934 are not now known in our Kamloops Office.

(2) Application 0116666 as originally filed by s.22 was for storage on Little Disdero Lake. The DER on this application dated June 11, 1946 recommended storage be granted instead on Big Disdero Lake and CL 17788 issued accordingly.

Letter of assurance forwarded s.22 dated June 17, 1946 re protection for prior rights on Little Disdero Lake.

(3) Earthfill dam constructed in fall of 1951 at point 'C' Big Disdero Lake; supervised and approved by Kamloops Office.

(4) Storage on Big Disdero Lake found to be excessively saline and water not possible for release through Little Disdero Lake without salting up the Little Lake-see letter by District Engineer dated August 15, 1955 to s.22 and his concluding suggestion that s.22 "lease the salty water where it is and apply for storage on Little Disdero Lake".

This is what s.22 originally applied for under application 0116666!

(5) In 1959/60 marked disputes occurred between s.22 re s.22 's right to use some water from Robbins Creek (for CL 17787) during freshet and s.22 refusing to allow s.22 any water and claiming the right to use the whole creek regardless of size of flow. The rulings of the Kamloops Office in these disputes is not recorded in the files.

(6) September, 1960: s.22 files application for C/W on CL 17788 to raise the dam on Little Disdero Lake (in lieu of the useless dam on Big Disdero) so that s.22 can store some water under CL 17788. See covering memo by D.E. on this application dated September 22, 1960. Our files show s.22 objecting to this application.

.....2

(7) June 1963: s.22 's successor s.22 files application for C/W on CL 17787 to change irrigation method to gravity pipe and sprinklers. This application refused to be granted by the Comptroller on April 7, 1964, until satisfactory storage under CL 17788 is established.

It should be noted that this pipeline has been constructed notwithstanding the refusal, but to my knowledge is not being used yet.

(8) December 20, 1963: s.22 files another application for C/W to abandon the dam on Big Disdero Lake, and to build a new dam directly on Robbins Creek on the NW¼ Section 17, Township 18, Range 15, W6M.

Please see our mutual correspondence about this application for C/W dated December 20, 1963, January-March 1964, as a result of which s.22 filed application 1254140 for 150 acre feet new additional storage on NE¼ Section 27, Township 18, Range 15, W6M. Application 0254140 is recommended to be not granted. Please see our DER of current date on this application.

The application for C/W dated December 20, 1963 can also be disposed of by refusal, for the same reasons 0254140 is recommended to be refused.

This leaves two outstanding applications for C/W to be dealt with, specifically those referred to above under items (6) and (7). Of these, the one in item (7) the Comptroller will not grant until the one in (6) is proceeded with.

(9) On the basis of investigations carried out by me in 1964/65/66. and discussions held with s.22 and s.22 successor-in-title s.22 , the application for C/W dated September 1960, as filed originally by s.22 is recommended to be granted for CL 17788.

s.22 is prepared to abandon the storage of water on Big Disdero Lake (since the water is too salty) and to raise the dam on Little Disdero Lake at s.22 own expense a sufficientheight to store the 150 acre feet of water under CL 17788 on Little Disdero, the said water being stored thereon jointly with FL's 4838, 4840.

s.22 is prepared to hire a consulting engineer to design and supervise the raising of the existing dam which will also require renewal of the existing sluice pipe because it is too small for use by three licencees and because it itself is in need of renewal. The capital cost of a new sluicepipe should be shared by the three licencees.

..... 3

The dam site is a good site and raising of the dam should present no particular problems. The adjoining land to be flooded on the south is stated to be Crown land, and the land on the north is stated to be owned by s.22.

From Interim Map 82L/12w the current lake area of Little Disdero Lake is planimetered to be 42 acres. In order to store 150 additional acre feet on this lake the dam will have to be raised 3.6 feet. Current storage is estimated to be in excess of the 141 acre feet called for by FL's 4838, 4840. There is no assurance that the 150 additional acre feet will be available from freshet flow every year to store behind the raised dam for use under CL 17787, and s.22 realizes this. However, in view of the large beaver dam existing on s.22 land on the NE¼ Section 27, Township 18, Range 15, and other beaver dams further upstream, s.22 is prepared to break these dams in order to release sufficient water down the creek to be able to store s.22 150 acre feet on Little Disdero Lake. s.22 may have to release sufficient water from these beaver dams to also fill FL's 4848, 4840 storage amounts if and when necessary.

As mentioned above, s.22 has objected to this proposal claiming that raising of the dam on Little Disdero by some 3 or more feet would back the water westward, up to the dam on Big Disdero. Between the two lakes the channel joining them is a flat piece of swampy land heavily mantled with black alkali. s.22 claims that if the water covers this black alkali it will pick up or dissolve or absorb the alkali from this stretch and will salt the whole of Little Disdero Lake. My suggestion was, and still is, that a dyke be constructed by s.22 across the far west foreshore of Little Disdero, across the beginning of the black alkali (where the height of land is traversed by the access road) to contain and prevent the storage waters of Little Disdero from flooding onto the black alkali. s.22 has agreed to construct this dyke at s.22 own expense (under the design and supervision of a P.Eng.) in conjunction with raising the dam. s.22 has countered by saying the dyke would not work. s.22 has also contended that a higher storagelevel on Little Disdero Lake would dissolve or pick up alkali from the foreshore soils bordering the existing Little Disdero Lake.

(10) To resolve s.22's continual objections, allegations and recriminations this office obtained the aid of soil and water experts to inspect and give opinions on the feasibility of the above proposals. They are as follows:

(a) In July 1964, the assistance of Mr. Van Ryswick, agrologist at the Dominion Experimental Range Research Station, Kamloops, was obtained. Mr. Van Ryswick and I took samples of the waters of Big and Little Disdero Lakes, of the water flowing in Robbins Creek, of the foreshore soils bordering the existing Little Disdero Lakes. The attached Water & Soil Analysis dated July 27, 1964, shows the analyses of these samples.

..... 4

Mr. Van Ryswick's conclusions were as follows:

Big Disdero Lake water is too salty to use (conductivity very high).

Little Disdero Lake water is satisfactory (conductivity is low).

Analyses of soil samples (Sites 1 to 4) of foreshore soils bordering Little Disdero Lake (their conductivities) do not indicate presence of amounts of alkali that should salt up a raised lake appreciably.

Analysis of soil samples taken on s.22 's alfalfa land irrigated under FL 4839 show them to be soils with P.H. and conductivity similar to the foreshore soils of Little Disdero Lake.

Sample labelled "Alkali flat" shows the excessive alkali in the black alkali reach between Big and Little Disdero Lakes.

(b) Copy of letter from Canada Department of Agriculture dated November 23, 1964 shows analyses of water samples taken by me from Robbins Creek and Little Disdero Lake in August 1964.

(c) Mr. Van Ryswick left for s.22 and suggested I get further opinion from Mr. Craig Brownlee, B.C. Department of Agriculture, Kelowna.

Mr. Brownlee, s.22 and I took further samples in October 1964. He has stated his findings in the attached copy of his report dated October 15, 1964. Pages 5 and 6 summarize his conslusions, of which the following are noteworthy:

> Existing storage water in Little Disdero already has unsatisfactory P.H.
>
> Agrees that plug dam or dyke is required at west end of Little Disdero Lake to prevent water from flooding onto the black alkali flat.
>
> Agrees with Van Ryswick that inundation of existing foreshore by raised storage would not increase the P.H. of the water.

(d) Copy of letter from Canada Department of Agriculture dated May 18, 1965, shows analyses of water samples taken by me from Robbins Creek and Little Disdero Lake on May 4, 1965.

..... 5

On the basis of the findings by Messrs. Van Ryswick and Brownlee, and my own investigations and observations as stated above, the application for C/W dated September 1960 (by s.22) is recommended to be granted subject to the following conditions being met by the licencee, s.22 :

The raising of the dam on Little Disdero and enlargement of sluicepipe be designed by, and construction be supervised by a consulting engineer after the plans are approved by Comptroller.

A dyke or plug dam be constructed across the foreshore at the west end of the lake to prevent the water from flooding the alkali channel located upstream of Little Disdero Lake.

A survey of the storage capacity of Little Disdero Lake will be necessary in order to derive acapacity curve to determine gauge height-storage relationships. It is hoped that this survey can be carried out by Mr. R.G. Harris, Chief of the Water Supply and Investigations Division.

Together with the granting of the forementioned application for C/W the granting of the application for C/W dated June 1963 (Item 7 above) should follow.

P.G. Odynsky,
District Engineer.

PGO/rn
Encl

Note: It is strongly recommended that if the above C/W is granted, that Notices of Proposal to grant this application be sent to s.22 s.22 , giving them an opportunity to express their opinions, as most assuredly at least s.22 s.22 will be telephoning me at regular intervals to voice s.22 objections and s.22 recriminations about the efficiency of my administration of the use of water on Robbins Creek, Campbell Creek, etc.

GOVERNMENT OF BRITISH COLUMBIA

MEMORANDUM

TO District Engineer,
Kamloops, B.C.

FROM Water Rights Branch, Victoria, B.C.

30 March 19 66.

SUBJECT.

OUR FILE 0116666
YOUR FILE 4968

When convenient, please forward your recommendations for the pending C/W application for CWL 17788, Robbins Creek.

H. D. DeBeck,
Comptroller of Water Rights.

Per:

WWK/pd

[redacted] s.22 diverting water from Robbins Ck. to storage pond under CL. 19093.

9 May 1966: [redacted] s.22 report Disdero lake full & overflowing & my inspection this evening shows lots of water going down creek past [redacted] s.22's, to waste. [redacted] s.22 says earlier runoff did not go to storage on Disdero L. because ditch was iced in & [redacted] s.22 had no equipment to clear the ditch. The water went to waste, into Monte Ck. (see over)

My inspection on the evening of May 10th at Desidero lake showed lake to be full & water beginning to overflow spillway. The Q going into lake was full ditch - about 5 cfs. The excess Q going down the creek, past the ditch intake was about 7 cfs plus. Hence total flow in creek above turn-off to lake was about 12 cfs plus. This amount has probably been flowing since last Wed. — now a week, and may continue for say another week, at least 10 cfs. Total Q 14 days x 10 cfs x 2 = 280 ac. ft. Deducting Q needed for irrig. the Total Q available for storage 14 x 5 x 2 = 140 ac. ft. at least.

Mr. J.E. Farrell
Deputy Comptroller of Water Rights
Water Management Branch

November 2, 1979

File: 0256957

0364268

Fr: H.I. Hunter, Chief
Hydrology Division
Water Investigations Branch

Re: Robbins Creek

As requested, a hydrology study has been completed for the above creek. The results are attached.

H.I. Hunter, Chief
Hydrology Division
Water Investigations Branch

CHC/hw

Attach.

Mr. C.H. Coulson, Head
Surface Water Section
Hydrology Division
Water Investigations Branch

October 31, 1979

File: 0256957

Re: Robbins Creek Study

Reference is made to the July 11, 1979 memorandum of J.E. Farrell, Deputy Comptroller, Water Rights Branch, requesting a review of a report prepared by Terra Engineering Laboratories Ltd., dated February 27, 1979, and sent to Mr. D.E. Smuin, Regional Engineer, Kamloops. This report was reviewed and an independent study was conducted by Mr. S.G. Reynolds to determine the water yield above the proposed diversion site on Robbins Creek (at hydrometric station 8LE078), and the storage requirements for the existing irrigation demand and proposed 100 acre-foot downstream diversion.

The Hydrology Division study included a frequency analysis using records of Robbins Creek (8LE022). The missing April records of 8LE078 were estimated using Robbins Creek (8LE022) and Bolen Creek (8LE001) records. The 1-in-5-year drought April-September volume runoff at the point of diversion on Robbins Creek into Little Disdero Lake was estimated to be 1160 acre-feet. A required storage capacity of 540 acre-feet at the end of June was estimated to meet existing seasonal licensed irrigation demand (993 acre-feet). Total diversion of Robbins Creek into the reservoir was assumed and an adjustment for net lake evaporation was made. The present full pool storage is given as 519.5 acre-feet, making Little Disdero Lake storage 20 acre-feet too low for a 1-in-5-year drought. However, with the existing storage a surplus of 145 acre-feet occurs in May which is spilled and would be available to supply the proposed diversion of 100 acre-feet (assuming the extra storage is provided).

No! 1270 AF See letter of 4 Sep 79

This neglects the seasonal unsupplied irrigation demand so the conclusion that a surplus of 145 AF is available is incorrect. See Memo to File of 25 Aug 80

The Victoria analysis of the 5 yr. drought is even more conservative than mine (if 520 AF storage at end of June is implied - unclear in memo)

W.O.

W. Obedkoff
Senior Hydraulic Engineer
Surface Water Section

WO/js

145 " surplus
665 AF for April thru June?
600 " " " " May.

My 25 Aug 80 analysis

I.E., shortage based on Victoria drought analysis even worse than my analysis

1 in 5 April thru June flows = 750 AF

Regional

Victoria 1 in 5 April thru May 525 AF

June avg. Q is about 30% of May which is about 75% of April + May. Therefore w/o doing anal for June I would estimate

Province of British Columbia

Ministry of the Environment

WATER RIGHTS BRANCH

MEMORANDUM

Mr. P. Brady, Director,
Water Investigations Branch.

Date: July 11, 1979

File No. 0364268

Attention: Mr. H. Hunter

Re: Robbins Creek

I have received the attached memorandum from the Regional Engineer in Kamloops, requesting assistance from the Hydrology Division in reviewing a report by a consultant on Robbins Creek.

Could you please review this report for Mr. Smuin and, due to the time constraints, send a reply directly to him with a copy to myself.

J. E. Farrell,
Deputy Comptroller of Water Rights.

Attachments

JUL 12 1979
WATER INVESTIGATIONS BRANCH

DISTRIBUTION	DATE	INITIALS
P. Brady	17/7/79	
H. Hunter		

19 July 79 WO

Province of British Columbia

MEMORANDUM

To: Comptroller of Water Rights
arliament Buildings
Victoria, B.C.

Date: July 6, 1979

File: 0364268

Fr: Water Rights Branch
523 Columbia Street
Kamloops, B.C.

Re: s.22 -Robbins Creek

I wrote Mr. Farrell on June 21, 1979 regarding the status of the above application. In that memo I referred to a report prepared by Terra Engineering Laboratories Ltd. which considers the availability of water in the Robbins Creek Watershed.

As you are aware 1979 has been water deficient for irrigation and may or may not be a year of record. In considering the s.22 application, I would therefore, appreciate an opinion from our Hydrology Division as to the accuracy of the (Seymour) report., taking into account irrigation water requirements based on water availability 4 years out of 5.

An early reply would be appreciated. A copy of the Seymour report is attached.

D.E. Smuin, P. Eng.
Regional Engineer

DES*ms
enc.

Province of British Columbia

MEMORANDUM

To: Memo to File

Date: August 25, 1980
File: 0364268

RE: Robbins Creek Storage Potential vs. Supply

For a five year drought (estimated from WSC record at Disdero Lakes diversion and also at an upper station; record is sufficiently long and good to get good estimate) there is 600 AF of water available from 1 April to 1 June. The licenced demand is 805 AF during this same time. Therefore, there is no excess water available for storage.

The calculations are shown on the attached handwritten sheets.

Recommend that s.22 's application be refused for lack of water and until the licencing situation changes dramatically no more applications be accepted on Robbins Creek.

P.F. Doyle

PFD/sf

See WRB Memo of 31 Oct 79 w/ analysis indicating a more severe drought situation than this. Confirms recommendations contained herein.

PFD 27-08-80

* Unclear whether drought end is end of May or June. In any case, both analyses indicate that 5-yr. drought supply does not now meet existing demand.

Robbins Creek above Dickey Crk – Stat. 08LE078

Year	April*	May	Avg	Rank*
68	2.3	9.1	5.7	2
71	3.8	15.2	8.5	4
72	5.0	19.9	12.4	5
76	1.9	7.7	4.8	1
77	5.3	6.5	5.9	3
78	9.4	24.1	16.8	6
Avg.	4.6	13.8		

1968-76 April/May avg. ratio

April flows based on ratio of Stat. 08LE022 and increasing this amount to 25% because of 77-78 ratio and just that low individual may run off earlier.

Avg. unit r.o. in May for 08LE078 = $\frac{13.8}{12.4}$ = 1.11 cfsm } similar
" " " " " " 08LE022 = $\frac{6.5}{6.0}$ = 1.08 "

Year	April	May	Avg*	Rank	%
21	1.4	13.8	15.7	12	86
22	0.76	6.9	7.4	7	50
23	2.1	9.0	6.3	6	43
24	0.83	6.9	8.0	8	57.5
25	3.5	8.8	12.7	11	78.5
26	0.12	0.10	0.2	1	7
27	0.34	4.4	4.9	3	21
68			5.7	4	28.5
71			8.5	9	64
72			12.4	10	71
76			4.8	2	14
77			5.9	5	36
78			16.8	13	93

Multiplier $\frac{12.4}{6}$ = 2.07 to arr't for D.A. @ Stat. 078

WSC STATION 08LE022 – Robbins C. nr. Robbins Range

Yr. 1921 → 1927

Correlation between April & May Flows in Robbins Creek

PFD 21-08-80

Poor

However, from record,

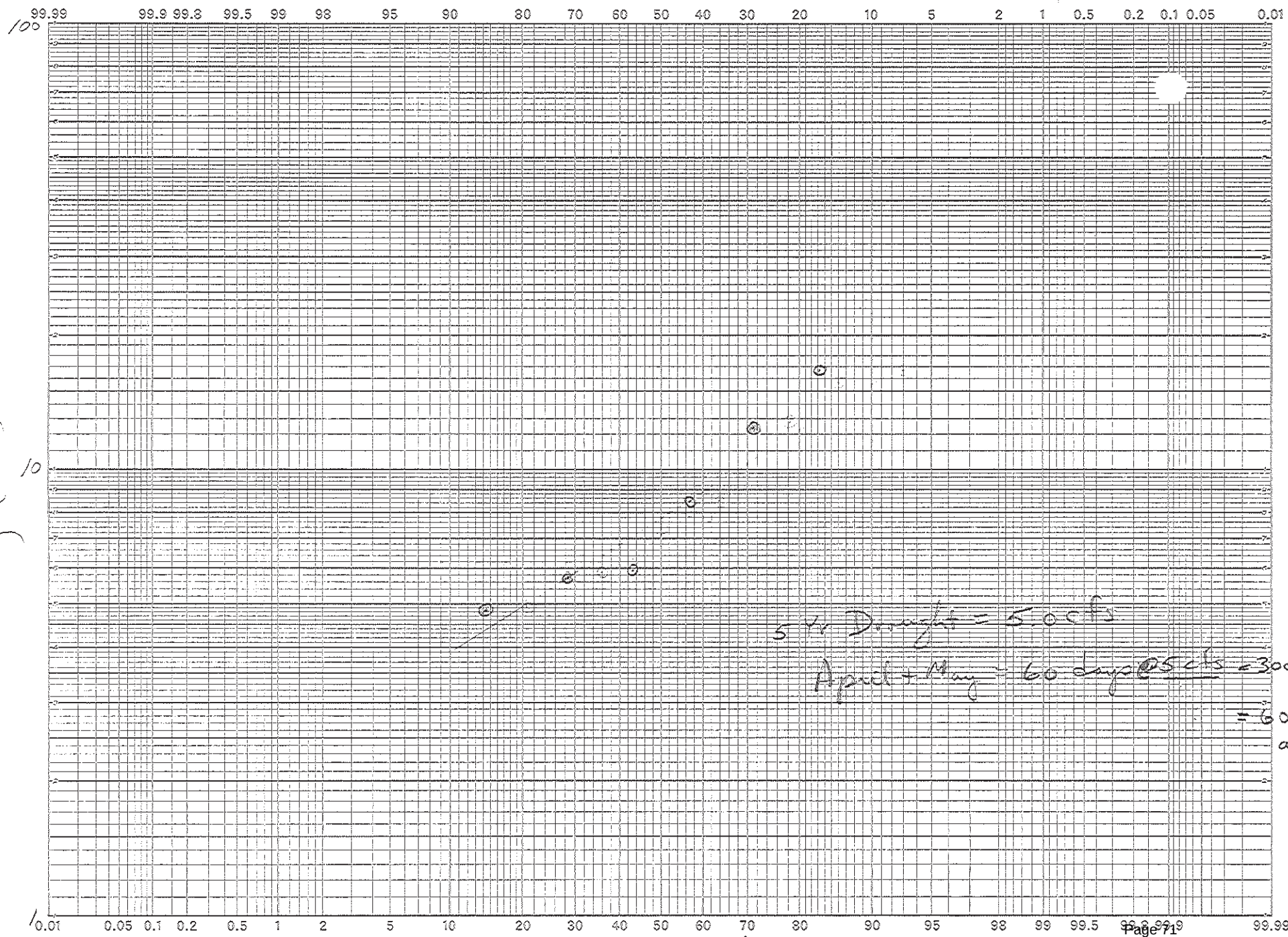
Avg April Flow = $\frac{1.2}{6.5}$ = 0.18 of Avg. May Flow

Q (cfs) in April

Q cfs in May

PRINTED IN U. S. A.

Freq of April + May Flow at stat 08LE078 (Robbins Creek)



5 yr Drought = 5.0 cfs

April + May = 60 days @ 5 cfs = 300 cfs-days

= 600 AF available

Based on RF's letter of 4 Sep 79 to Tema Engr. (These totals are certainly close to present quantities)

Priority storage licenses = 497 AF

" unsupported diversion licenses = 774 AF

April + May demand = 1/3 of irrigation season = 1/3 × 774 = 258 AF

Total priority demand in April + May = 497 + 258 + 10% (engineering allowance) = 805 AF

demand = 805 AF > supply = 600 AF for 5 yr. drought

∴ no water available for new storage appropriations

Province of British Columbia
Ministry of Environment

MEMORANDUM

To: File

Date: March 26, 1980

File: 0364268

Mark Seymour of Terra Eng. telephoned. He would like to know if we have received any comments from Victoria with regard to his hydrology report on Robbins Creek. The call was for the purpose of expediting the application.

USD

I called Don Roksten on 21 Aug 80 inquiring if his Dir. had done anything in response to Smuin's request. Asked him to call me back if they had.
PFD

TERRA ENGINEERING LABORATORIES LTD.

SOIL & EYS. MATERIALS TESTING. ENGINEERING REPORTS

1350 WILLIAM STREET
VANCOUVER, B.C.
V5L 2P5
253-7756

BRANCH LABORATORIES

VICTORIA, B.C.
778 TOPAZ AVENUE
V8T 2M1
385-9513

KAMLOOPS, B.C.
514 LORNE STREET
V2C 6K9
372-5321

1314 Dalhousie Dr.,
Kamloops, B.C.
372-5321
Project #79009
28 August 1979

Water Rights Branch
Ministry of Environment
523 Columbia St.,
Kamloops, B.C.
Attn: Mr. D.E. Smuin, P. Eng.

MINISTRY OF THE ENVIRONMENT
WATER RIGHTS BRANCH
KAMLOOPS, B.C.

Dear Sir:

Re: Water Rights Application 0364268
X Ref: Ours Dated 27 February 1979

Complementing synthetic and Water Survey of Canada Gauging previously referenced: Terra Engineering Laboratories Ltd. installed a sharp crested weir as directed by [redacted] below the "Disdero Lake Diversion" on Robbins Creek. The records provided by [redacted] have been summarized for the period 18 March - 21 June 1979.

Talked to [redacted] on [redacted] said that [redacted] Jul 81. weir was below all diversions & just before Robbins enters Monte Ck. There there is no unaccounted for demand.

Diversion to storage at Diserdo was closed off 4 May 1979. A Synopsis flows at the temporary weir is offered:

Diserdo not empty from previous years

Period	Qaf/Period
18 Mch - 31 Mch	35.6
1 Apr - 30 Apr	46.9 → 50 AF
1 May - 15 May	107.3 } 215
16 May - 31 May	60.9
1 June - 21 June	19.6
total	270.3

TERRA ENGINEERING LABORATORIES LTD.

79009

The quantity measured as water available to Storage (ie. prior to 15 May 1979 as a licence limit) was 189.8 af.

May we have your comments.

Yours very truly,

M.E. Seymour, P. Eng.
Area Manager

cc: s.22

pr/MES

Province of British Columbia

MEMORANDUM

To: Comptroller of Water Rights
Parliament Buildings
Victoria, B.C.

Date: July 6, 1979

File: 0364268

Fr: Water Rights Branch
523 Columbia Street
Kamloops, B.C.

Re: s.22 -Robbins Creek

I wrote Mr. Farrell on June 21, 1979 regarding the status of the above application. In that memo I referred to a report prepared by Terra Engineering Laboratories Ltd. which considers the availability of water in the Robbins Creek Watershed.

As you are aware 1979 has been water deficient for irrigation and may or may not be a year of record. In considering the s.22 application, I would therefore, appreciate an opinion from our Hydrology Division as to the accuracy of the (Seymour) report, taking into account irrigation water requirements based on water availability 4 years out of 5.

An early reply would be appreciated. A copy of the Seymour report is attached.

D.E. Smuin, P. Eng.
Regional Engineer

DES*ms
enc.

Province of British Columbia

MEMORANDUM

J.E. Farrell
Deputy Comptroller of Water Rights
Parliament Buildings
Victoria, B.C.

Date: June 21, 1979

File: 0364268

Fr. Water Rights Branch
523 Columbia Street
Kamloops, B.C.

Re: File No. 0364268 - s.22 Application

This application has been held, in order to confirm the availability or non-availability of freshet water so that a decision could be made on the recommendations regarding the licence application.

The report prepared by Terra Engineering Laboratories Ltd., on behalf of applicant s.22 was discussed with Mr. Seymour in my office, shortly after its receipt. A written reply was therefore not provided.

I did not necessarily agree with conclusions reached by Mr. Seymour and in view of the indicated below average runoff for 1979 freshet water, considered it appropriate to withhold a recommendation on the s.22 application until after the 1979 freshet.

s.22 has indicated in s.22 letter of April 18 that a weir had been established in Robbins Creek, but has not indicated the location of it. As there are many non-storage supported licences on Robbins Creek, the flow figures which may be available based on that weir could be misleading.

While I appreciate the dollars which s.22 will expend in upgrading s.22 storage capacity, it would be misleading to provide s.22 with a water licence with which s.22 would spend a considerable sum only to find water was not available to be stored in the created reservoir.

As you are aware, this office has been staff short for approximately 3 years and consequently the studies necessary to make sound recommendations in areas of questionable water supply have not been possible. My recommendations regarding the s.22 application will follow as soon as priorities permit.

D.E. Smuin, P. Eng.
Regional Engineer

DES*ms
enc.

TERRA ENGINEERING LABORATORIES LTD.

SOIL SURVEY MATERIALS TESTING, ENGINEERING REPORTS

1350 WILLIAM STREET
VANCOUVER 6, B.C.
253-7756

552 JOHNSON STREET
VICTORIA, B.C.
385-9513

3399-15TH AVENUE
PRINCE GEORGE, B.C.
563-3510

1314 Dalhousie Pl.
Kamloops, .B.C.
372-5321

27 February 1979

Regional Engineer
Water Rights Branch
523 Columbia St.
Kamloops, B.C.

Attn: Mr. D.E. Smuin, P.Eng.

Dear Sir:

Re: Water Rights Application 0364268 s.22

Thank you for your time during my visit to your office 26 February. Pursuant to our discussions of that date, Terra Engineering Laboratories Ltd. appreciates the opportunity to outline data in support of the captioned water licence application.

Discussion

The application referenced was filed with the Water Recorder on 19 June 1978; and proposes the diversion of Robbins Creek pre-irrigation season flows, by gravity, to storage at Holmwood Slough and thence rediversion to an irrigation use. It is understood that the Comptroller of Water Rights has, in the past, considered Robbins Creek to be fully recorded as to annual yield.

Flow records have been obtained and collated from Water Survey of Canada Station 08LE078 located upstream of "Little Disdero Lakes Diversion". The summary of these records is shown as Plate 1 attached. Station 08LE022 operated for the Water Years 1919-27 with compatible unit discharges on a smaller basin area.

1270.4

The total licenced diversion of water from Robbins Creek is 993.3 acre feet per annum (blue stream). Of this quantity, 464.5 acre feet are supported by storage at Little Disdero Lake and 15.0 acre feet at Reservoir Diversion "L" of Water Rights Map 3690. The seasonal unsupported diversion is therefor 513.8 acre feet.

Continued.....

discussed with Dennis - we will evaluate after Spring runoff

TERRA ENGINEERING LABORATORIES LTD.

An area capacity relationship developed for Little Disdero Lake as rebuilt for storage in 1978 indicate a full service pool storage of 519.5 acre feet; providing an evaporation account of 55 acre feet per annum on a mean area of 43 acres.

Using the Water Survey of Canada Gauge as reference point, the April to May flows available to be diverted into Little Disdero Storage (inclusive of local point discharge) would be in excess of the full service level by 400.5 acre feet in an average year--- if only one half of the may flow were diverted.

The average year downstream availability of yield to the end of July is 771 acre feet from above the Little Disdero Diversion and 233 acre feet inputted by drainage below WSC08LE078 and above "other diversions". The total of 1004.5 acre feet and the excess of Flow available but above the Little Disdero Storage capacity (400.5 acre feet) are cumulated and must satisfy a 513.8 acre foot licenced diversion demand. On the mean flows of record there is a credit of yield to licenced use.

Of six years of records, with synthetic April record and unit discharge, there is a credit of 166 acre feet in the dryest single recording season. The significance of a credit is amplified when it is considered that no records of annual yield contributions from the month October-March inclusive have been taken into the process.

SUMMARY

On the basis of our review of streamflow records on Robbins Creek, updated through the 1978 calendar year and the storage at Little Disdero Lake; a credit of annual average streamflow yield exists which is substantially larger than the quantity applied for under File No. 0364248 which is now before the Water Rights Branch Engineer. The development of a credit has assumed only those surface flows for the months of April to September inclusive, a technique considered conservative.

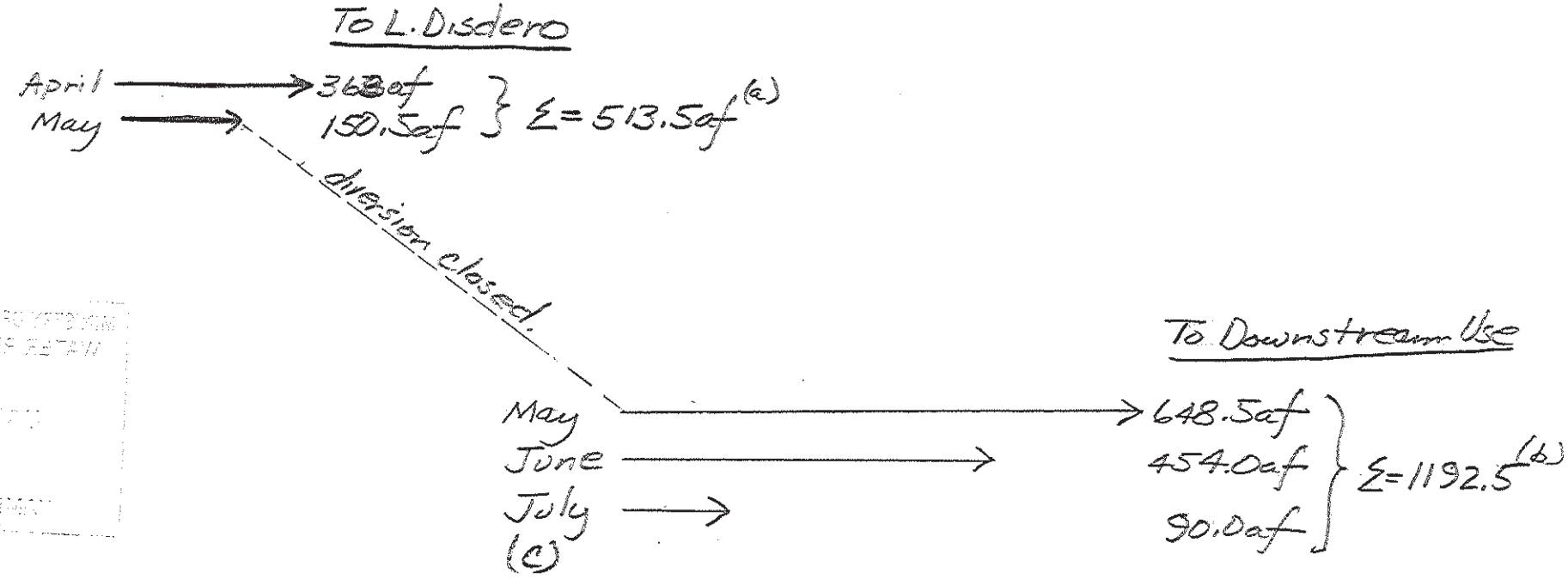
May we have your comments.

Yours very truly

M.E. Seymour, P.Eng.
Area Manager

MES/bmsj

Simplified flow sheet for Robbins Creek based on unit discharge means(x) for Water Survey Canada 8LE78



Notes: (a) full service, including evap allowance

(b) "Unsupported" diversion licenced at 513.8af

(c) No Water Aug - Sept in deferrance to Water Regulation experience

File 79009
Drwg 25F795
Plate 2

Province of British Columbia
Ministry of Environment, Lands and Parks

BC Environment

MEMORANDUM

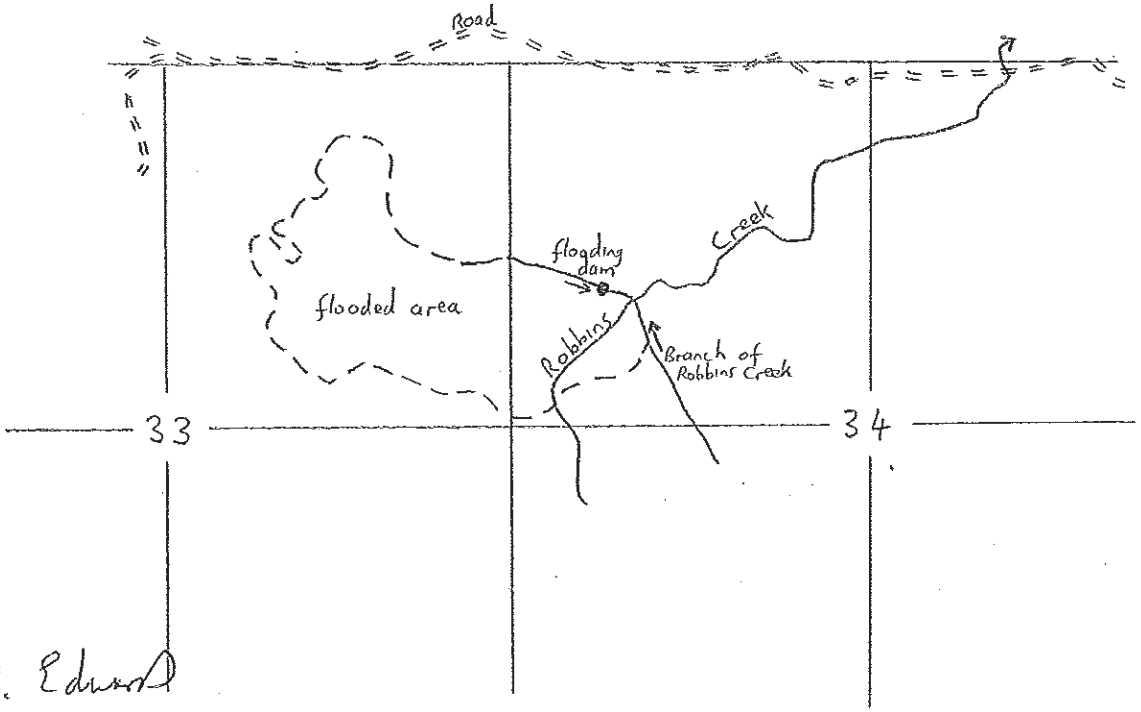
To: File

August 26, 1994
File: 0241430

Re: FWL 5951 on Robbins Creek

On June 16, 1994 I visited the site of F5951 on Robbins Creek. A flooding dam has been constructed on a ditched tributary of Robbins Creek within NE 1/4 of Section 34. The flooded meadow area has also been ditched. These appear to be drainage ditches allowing the meadow to be drained (see sketch below and air photo BCC92005 #24). The flooding dam is not at POD "J" on Robbins Creek and does not interfere with the flows in Robbins Creek. From the air photo the flooded area is approximately the same as the old FL plat. There was no sign of any sprinklers on the property. There was a portable pump on the property that did not appear to have been used ~~from~~ or some time (flat tires on the trailer).

A branch of Robbins Creek joins the main Robbins Creek channel downstream of the tributary on which the flooding dam is located.

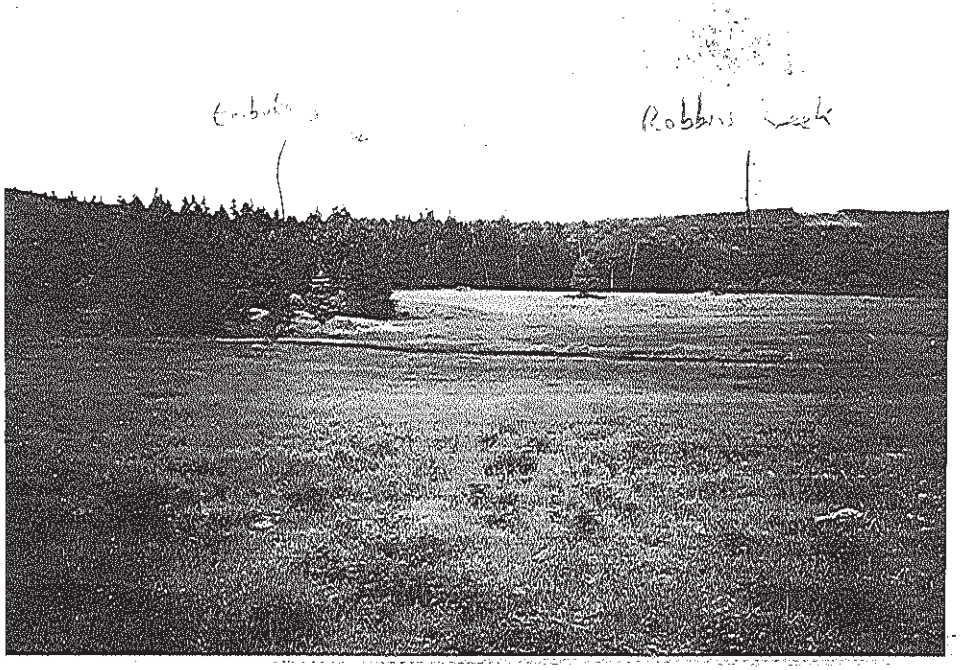


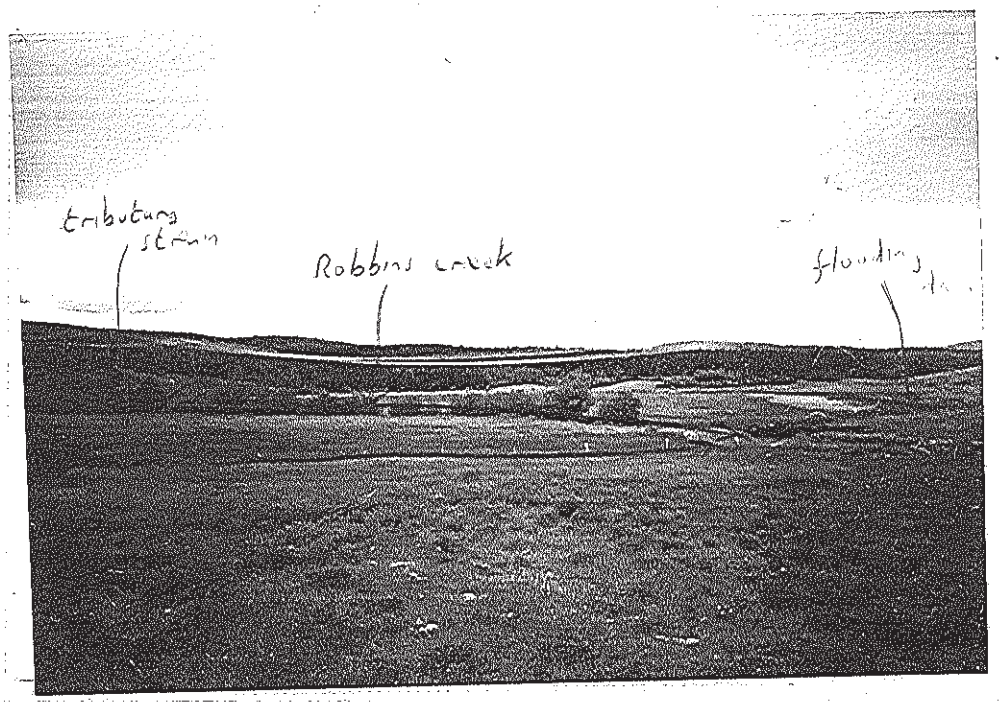
M. Edwards

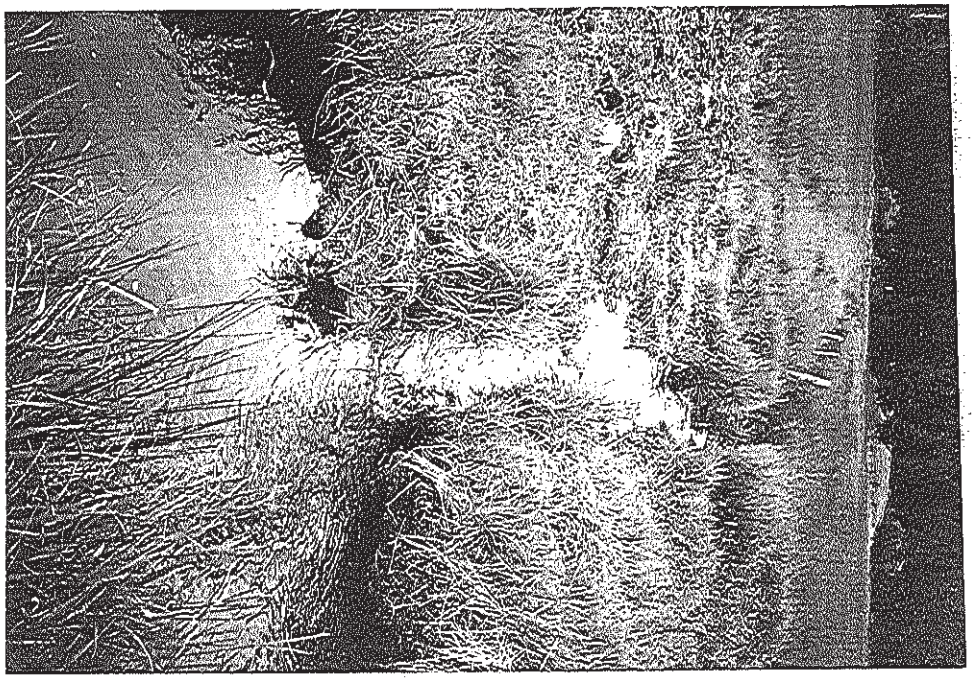
M. Edwards
Allocation Technician

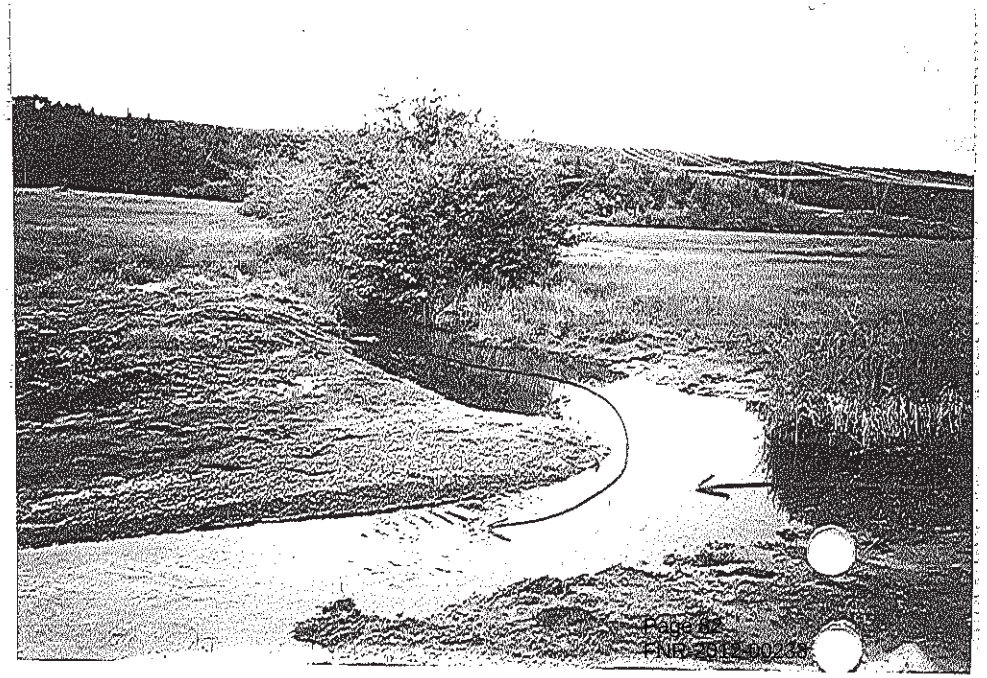
(See photos dated May 20/'94)
Air photos: BCC 758 #1

ME/hm


Robbins Creek


Tributary stream
Robbins creek





Tributary stream to Robbins Creek which is probably Robbins Creek water diverted upstream.

May 20/94 ME

Robbins Creek where it is joined by the tributary stream on which the flooding dam is located authorized under F.5951

May 20/94 ME

Engineer's Report on a Water Application Containing
Unfavourable REcommendation

Water District: Kamloops **File:** 3002066

Applicant: s.22 **Precinct:** Ducks

Address: s.22

Source: Robbins Creek **Trib. to:** Monte Creek

Priority: October 25, 1991

Appurtenant Land: Blk. C of Sec. 21, Blk. B of Sec. 22, Blk. B of Sec. 27 and SE 1/4 of Sec. 28, Tp. 19, Rg. 15, W6M, K.D.Y.D.

Works not constructed are: Diversion structure, pipe, dam, reservoir, pump and sprinkler system.

I recommend that the application be REFUSED for:

Purpose	Quantity	Duty	Acres	Period of Use
Storage and Irrigation	n/a	n/a	n/a	n/a

A. ADMINISTRATIVE REPORT of RER:

1. Robbins Creek has already been noted in the stream register as fully recorded for all purposes including storage.

2. The original application by s.22 was for 3000 acre-feet and 500 gallons per day. During the site inspection on May 27, 1992, s.22 explained that he wanted to store "as much water as you will let me have" in a proposed reservoir site. The original application did not include a sketch showing the proposed works, thus the proposed point of diversion on Robbins Creek was unknown until the site inspection was made. As a result of the publishing of the application in the Kamloops Daily News, letters of objection were received from 27 licensees on Robbins Creek and Monte Creek. (See list of objectors attached to letter dated June 8, 1994 from M. Edwards).

   A meeting was held with s.22 in the Regional office on December 9, 1992 to review the application and the following issues were discussed:

   - s.22 was to provide flow measurements on Robbins Creek with dates and measured flows. He was also to note if water was being diverted into or released from the Little Disdero Lakes reservoir at the time of flow measurements.

   - The approximate volume of s.22 's proposed reservoir was 200 acre-feet. A more detailed survey of the reservoir may be required. It was suggested that s.22 contact the Ministry of Agriculture who could help in this regard.

   - s.22 was given WSC streamflow summary information for Robbins Creek. It was explained to him that application 0364268 on Robbins Creek for storage

. . . /2

and irrigation had been refused in 1981 based on a hydrologic study of the Robbins Creek watershed by the Water Investigations Branch.

On January 29, 1993, Lance Brown of the Ministry of Agriculture provided a survey of the proposed reservoir. The capacity was 126 acre-feet. The capacity could be increased to 268 acre-feet by excavating 229,000 cubic yards of soil, but this was probably not economically feasible.

The quantity applied for was therefore established as 126 acre-feet and 500 g.a.d. and not 3000 acre-feet and 500 g.a.d. A hydrology study and licensed demand report were done for Robbins Creek (see Technical Report).

As most of the appurtenant land is held under Crown leases, details of the leases were obtained from BC Lands. Using air photo BC 86021, #173, the lease boundaries were located and the legal descriptions of the areas to be irrigated were determined as the areas that had been cleared. Approximately 125 acres of land have been cleared and could be irrigated within the appurtenant land (see Figure 1). The leases are on BC Lands files 0314968 and 3400409.

On June 27, 1994, a meeting was held in the Barnhartvale Community Hall. The reasons for calling the meeting were: to inform the objectors of the actual quantity being applied for and the location of the proposed diversion point and works; to explain the licence adjudication process and the criteria used; to outline why a review of existing licenced use is a necessary part of the adjudication process; to explain that only those licensees downstream of the proposed diversion point could be considered as legal objectors; to give the applicant an opportunity to explain his proposal. The meeting was also called to discuss the water bailiff, the possible formation of a Water Users' Community and general licensing information and irrigation guidelines. Those in attendance included 22 of the 27 objectors to the s.22 application. Minutes of the meeting are on file and include a list of attendees.

The following points of objection were raised during the meeting:

- There isn't enough water in Robbins Creek to satisfy existing licences.
- Water released from storage in Little Disdero Lakes could be diverted by s.22 before it reaches downstream licensees.
- s.22 s proposed storage site is alkali soil and this would make any water unusable for irrigation purpose.
- The Water Rights Branch had previously stated that there was no possibility of getting additional water rights on Robbins Creek and that s.22 s application for 100 acre-feet for storage and irrigation had been refused on the grounds that there was no more water available.

. . . /3

A plan of the Robbins Creek watershed was given to those attending the meeting (see Figure 2) on which was shown the proposed point of diversion (POD) and works for the application. It was explained that only those licensees downstream of the proposed POD could be adversely affected and therefore considered as legal objectors. The licensees upstream of the POD who had objected would not be considered as legal objectors but their comments on water shortages in Robbins Creek would be considered.

It was explained that before any decision was made, the actual use of water on Robbins Creek would be reviewed; in particular the flood irrigation licence on the former s.22 property now owned by s.22 and the inter-watershed diversion into Buse Creek s.22.

s.22 was given an opportunity to speak to his application but he declined to do so.

Meetings were held with s.22 s.22 on June 8, and September 15, 1994, to discuss their licensing and in particular the flood irrigation licence, F 5950 (0241427) which is the first priority licence on Robbins Creek. s.22 had recently purchased the property to which F 5950 is appurtenant from s.22 and were not aware that the 168 acre-feet licence was for irrigation by flooding. After reviewing the old works and what would have to be done to re-establish the use of water as authorized under F 5950, s.22 notified the Regional office that they would be re-constructing the works authorized under F 5950 to enable them to flood irrigate District Lot 706, K.D.Y.D. (see memorandum dated September 16, 1994 and letter dated June 16, 1994). A letter will be sent to the s.22 requesting a schedule for construction of the works and a date for completion of the works and beneficial use of the water.

Concerns had been expressed to the Regional office regarding the losses that may occur from the ditch that conveys water from Robbins Creek into Buse Creek. F 42951 (0322550) authorizes the diversion of up to 204.4 acre-feet from Robbins Creek to supplement F 42952 on Buse Creek. The licences are held by s.22. C 58897 (0322551) and C 58899 (0193399) authorize the diversion of up to 58.6 acre-feet from Robbins Creek for irrigation and storage to supplement C 58898 on Buse Creek. The licences are held by s.22 s.22

A meeting was held in the Regional office with s.22 and s.22 on September 22, 1994. The licensees explained that although parts of the ditch suffer from losses when water is first passed along the ditch, once it is wetted down the ditch is a good delivery system. They said that over the last few years work has been done in several places to clean out the ditch, seal it with bentonite and increase the grade in an effort to improve the ditch efficiency and that more work is planned where BC Hydro did some work and where losses may be occurring. A site inspection has been proposed for the spring of 1995 to determine what ditch losses are occurring. (See memorandum dated October 5, 1994).

. . . /4

According to the water bailiff for Robbins Creek, Harold Sample, all other licences on Robbins Creek are being utilized and every year there is considerable time spent on operating and regulating the use of water on the system.

On numerous occasions the applicant has been pressuring the Regional office for a decision on the application. s.22 was informed that once the objections had been considered, the hydrology analysis completed (including the applicant's flow records) and a review made of licensed use of water on Robbins Creek a decision would be made.

At the time of writing of the report, s.22 has not provided the flow measurements requested by the Regional office. However, a series of flow measurements was made by the applicant for application 0364268 for the freshet periods in 1979, 1980 and 1981. These measurements were taken below all diversions on Robbins Creek and were considered in the Technical Report below.

As the proposed pipeline would cross the BC Gas Utility Ltd. gas pipeline in two locations, late service was served on the company for comments. BC Gas Utility Ltd. objected to the proposal until more information is obtained from the applicant.

B. TECHNICAL REPORT

1. General Comments:

The Robbins Creek watershed has a northerly aspect and drains from the Monte Hills. It has a drainage area of 66 km² and an elevation range from 450 m to 1800 m. There has been extensive logging in the upper part of the watershed. Little Disdero Lakes is a storage reservoir and has an elevation of 930 m. The watershed is heavily licensed.

2. Summary of Licensed Demand:

8 Domestic Licences	7250 gallon a day (2.6 acre-feet)
27 Irrigation Licences	1101.07 acre-feet
1 Flood Irrigation Licence	168 acre-feet
20 Storage Licences	496.6 acre-feet

Assuming that 35% of the irrigation demand occurs between April 1st and June 30th:

Total licensed demand (April 1 - June 30) = 2.6 + 0.35 (1101.07 - 496.6) + 551.6* + 168 = 933.74 acre-feet.

* includes 55 acre-feet for evaporation losses from storage reservoir.

3. Hydrological Information:

There are seven years of streamflow records at WSC Station 08LE078 (Robbins Creek above Disdero Creek) from 1968 to 1979 with a drainage area of 32.1 km².

. . . /5

There are also eight years of record for WSC Station 08LE022 (Robbins Creek near Robbins Range) from 1920 to 1927 with a drainage area of 15.5 km².

The hydrographs for the WSC streamflow records on Robbins Creek were plotted to determine the freshet period (see minutes of meeting June 27, 1994). From the hydrographs it can be seen that the freshet mostly occurs between April 1st and June 30th although on some years freshet flows had dropped below the licensed baseflow requirement by June 15th. It may also be that the logging that has occurred in the upper watershed has resulted in an earlier freshet.

A frequency analysis was done for WSC Station 08LE078 on Robbins Creek (see file). The following 1-in-5 year drought freshet volume runoff estimates for the period April 1st to June 30th were obtained:

Distribution	**Volume Runoff (acre-feet)**
Log Normal	812
Pearson Type III	773
Log Pearson Type III	806
Average	**797**

[Note: The Gumbel distribution was not used as there were no upper or lower 95% confidence limits].

During the adjudication of application 0364268, the applicant measured flows in Robbins Creek below all diversions during March, April, May and June for the years 1979, 1980 and 1981. During 2 of the 3 years that flow measurements were taken there were insufficient flows in Robbins Creek to satisfy existing licensed demand. Only in 1981 were flows in excess of the licensed demand, and this because of a "very wet spring".

4. **Recommendations:**

As the total licensed demand for the period April 1st to June 30th is 933.74 acre-feet and the 1-in-5 year drought freshet volume runoff estimate for the same period is 797 acre-feet there does not appear to be sufficient water to satisfy existing licences.

This conclusion is in agreement with the findings in the adjudication of application 0364268.

According to W. Obedkoff the Elevation of Zero Runoff (i.e., that elevation at which potential evapotranspiration equals precipitation and results in insignificant contribution to surface runoff on an annual basis) for the Robbins Creek watershed is 1067 m. (See Salmon River Study Low Flow Water Resource Use dated September 1976). WSC Station 08LE078 on Robbins Creek has an elevation of 954 metres. The diversion into the Little Disdero Lakes reservoir has an elevation of approximately 930 metres (see Figure 2).

.../6

A flow of 90 gallons per minute was measured in Robbins Creek below all diversions and approximately 300 m upstream of the confluence with Monte Creek on January 20, 1995. Because of ice conditions in the creek, it was not possible to make a measurement at the proposed diversion point for this application. As the creek channel becomes more constricted below the last licensed point of diversion on Robbins Creek and as the creek gradient changes from 1.7% above the last diversion point to 5.6% below the last diversion point the winter flows would be expected to be less at the proposed diversion point for this application than at the mouth of Robbins Creek (see Figure 2).

There are two domestic water licences on Robbins Creek downstream of the proposed diversion point. Diversion of winter flows could affect the rights of the downstream licensees and the impact of reducing the winter flows in the creek below the proposed diversion point on instream ecosystem values should be considered. Therefore the diversion period considered for this application is during the freshet (i.e., April 1 to June 30).

There is insufficient water available, based on the information, to grant this application. It is therefore recommended that the application be refused. Objections are therefore deemed valid and will be upheld by refusal of the application.

A list of objectors is attached as Appendix "A". As only those licensees downstream of the proposed diversion point could be adversely affected by the application, the objectors have been separated into two types:

i) Objections received from downstream licensees were accepted as valid objectors.

ii) Objections received from upstream licensees were not accepted as valid objectors but their letters were accepted as expressing concerns.

It is recommended that a copy of this report be sent to the applicant with the notice of refusal.

Inspected at: Site with applicant Date: May 27, 1992

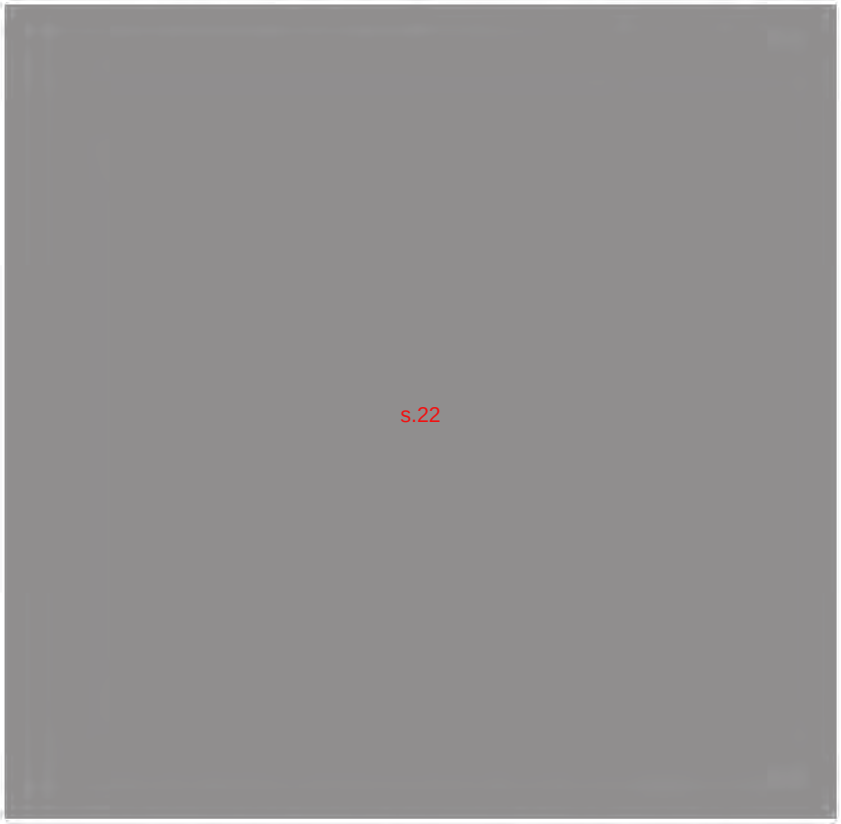
Report by: M. Edwards Feb 17/95
M. Edwards
Water Management Officer
Southern Interior Region

Approved by: Date: March 7, 1995
Ron B. Smith, P.Eng.
Water Allocation Section Head
Southern Interior Region

File: 3002066

APPENDIX "A"

(i) Objectors Downstream of Proposed Diversion Point (Letters of Objection)



(ii) Objectors Upstream of Proposed Diversion Point (Letters of Concern)

FREQAN.OUT;6

CREEK MAY 19,1994 FREQUENCY ANALYSIS - PAGE 1

ROBBINS CREEK ABOVE DISDERO ~~LAKE~~ 08LE078 D.A. 32.1 SQ.KM.
AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979
INCLUSIVE
INPUT DATA (acre-feet)

993.000 1551.00 2165.00 812.000 785.000 2322.00 797.000

NO. OF INPU. ATA VALUES 7

MAXIMUM	2322.00
MINIMUM	785.000
RANGE	1537.00
MEDIAN	993.000
MEAN	1346.43
VARIANCE	448541.
STANDARD DEVIATION	669.732
COEFFICIENT OF VARIATION	0.497414
COEFFICIENT OF SKEW	0.734741

1-in-5 year

① Log Normal : 812 ac.ft.

[Gumbel : 750 ac.ft - no upper or lower confidence limits]

② Pearson Type III : 773 ac.ft

③ Log Pearson Type III : 806 ac.ft.

①,②+③ Average: 797 ac.ft. (unit runoff is 24.8 ac.ft/km²)

1-in-5 year for 08LE022 (D.A. 15.5 km²) is 376 ac.ft. (unit runoff is 24.3 ac.ft/km²)

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-NORMAL DISTRIBUTION (THREE-PARAMETER) -METHOD OF MAXIMUM LIKELIHOOD

LOWER BOUNDARY PARAMETER: 0.000000E+00

STATISTICS OF THE LOG-TRANSFORMED REDUCED INPUT DATA
MEAN= 7.10340 STANDARD DEVIATION= 0.480368 COEF. OF SKEW= 0.512203

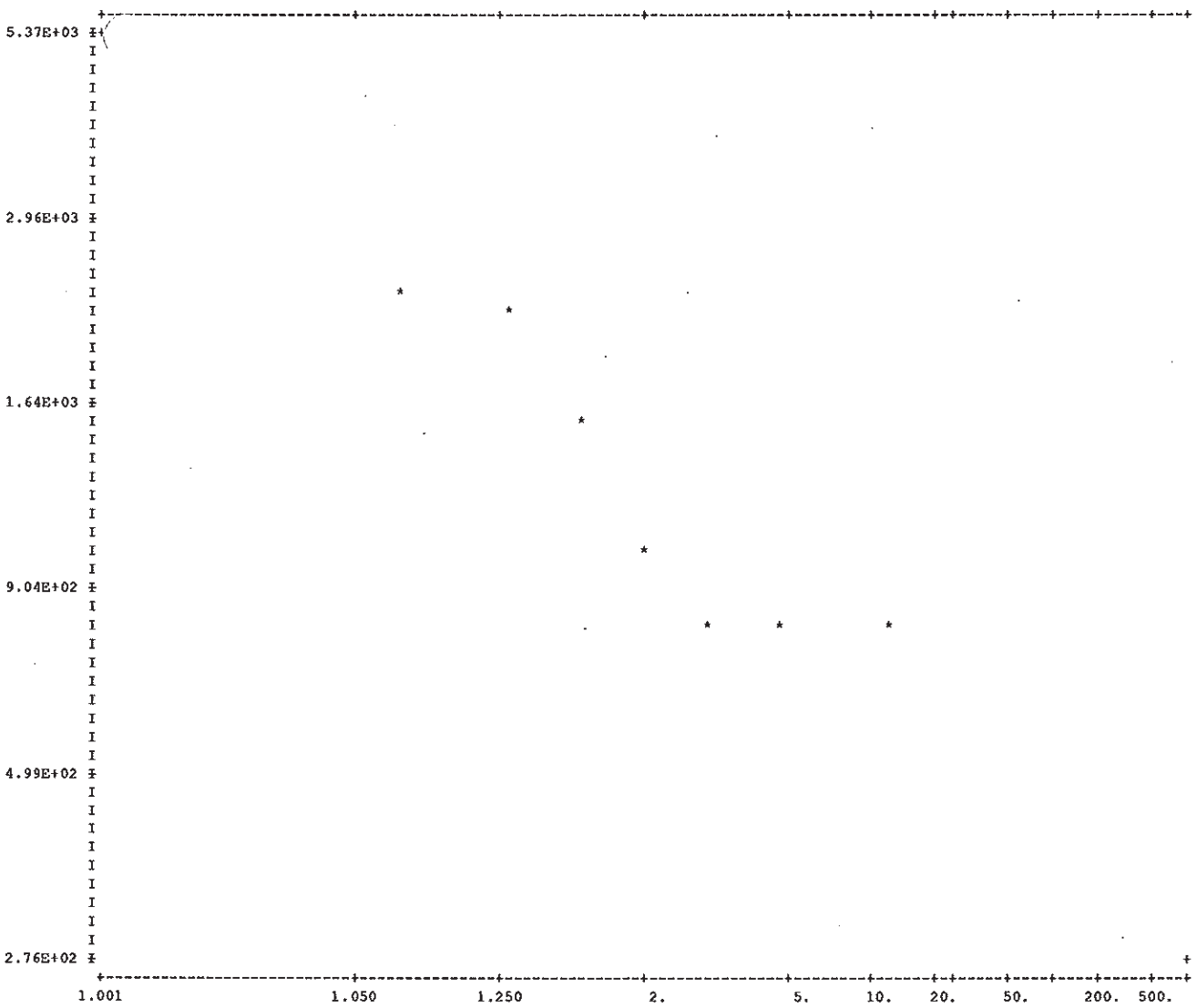
TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	5366.7938	3020.7207	19056.123	1511.4552	3.99
0.0500	1.0526	2680.3425	830.65878	6018.2888	1193.7340	1.99
0.2000	1.2500	1821.8515	409.51075	3364.8874	986.40533	1.35
0.5000	2.0000	1216.0921	231.17008	2060.4178	717.75729	0.90
0.8000	5.0000	811.74558	182.46193	1499.2619	439.50353	0.60
0.9000	10.0000	657.00732	174.92548	1338.4840	322.49815	0.49
0.9500	20.0000	551.80335	170.99365	1238.9178	245.76847	0.41
0.9600	25.0000	524.39013	169.95642	1213.6937	226.56870	0.39
0.9800	50.0000	453.33428	166.98699	1148.7749	178.89665	0.34
0.9900	100.0000	397.69340	164.16190	1097.5700	144.10018	0.30
0.9950	200.0000	352.78311	161.38640	1055.2852	117.93582	0.26
0.9980	500.0000	305.10394	157.77600	1008.6683	92.288433	0.23
0.9990	1000.0000	275.56116	155.10066	978.44775	77.606547	0.20

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.163
(2) - AT POINT 5: 0.175

FOR 5 SMALLEST POINTS - (1): 0.163
(2): 0.175

LOG-NORMAL DISTRIBUTION (THREE-PARAMETER) -METHOD OF MAXIMUM LIKELIHOOD



AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

GUMBEL DISTRIBUTION FOR LOW VALUES - METHOD OF MOMENTS

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

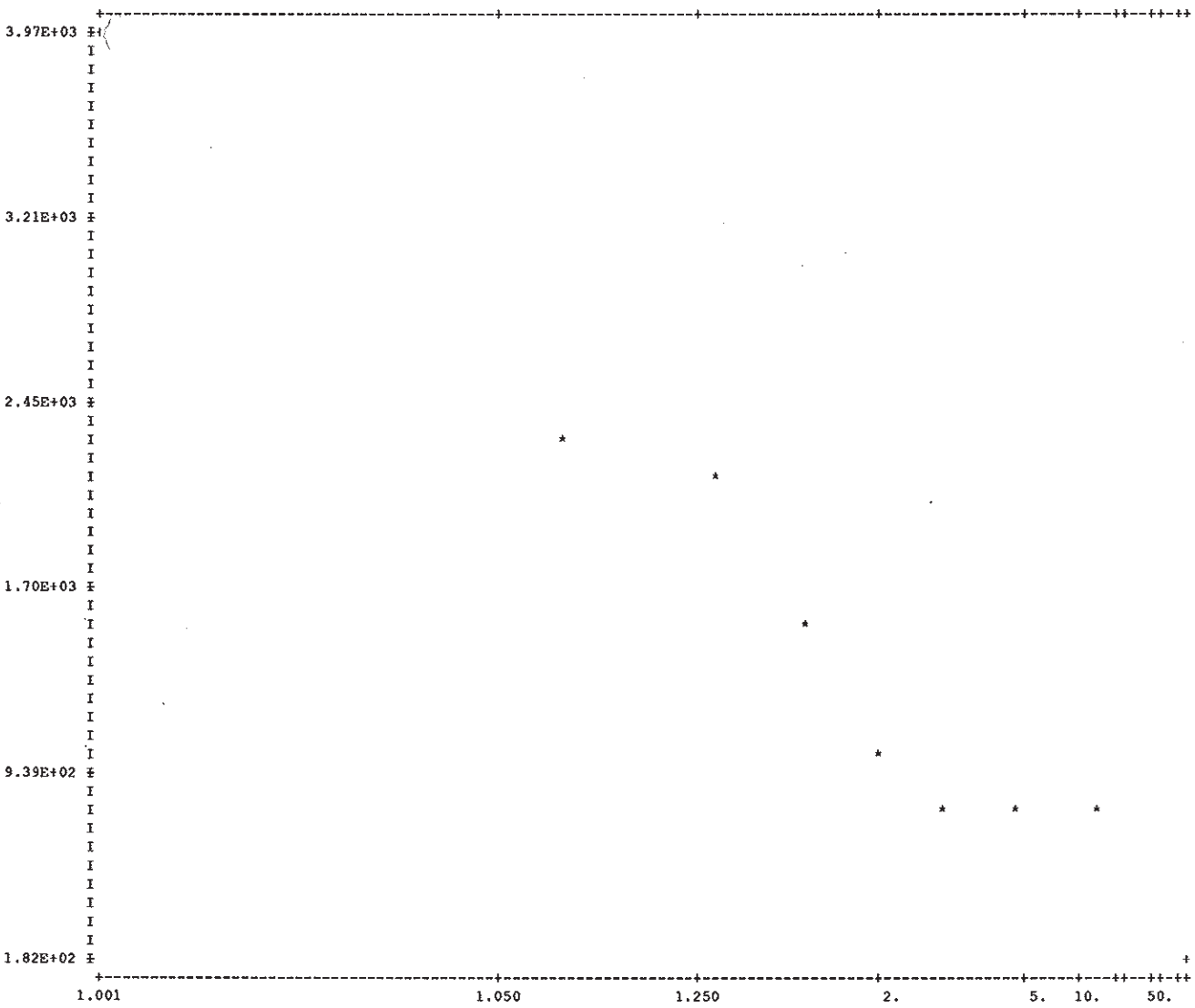
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	3970.0340	N/A	N/A	N/A	2.95
0.0500	1.0526	2584.5873	N/A	N/A	N/A	1.92
0.2000	1.2500	1891.4657	N/A	N/A	N/A	1.40
0.5000	2.0000	1255.5745	N/A	N/A	N/A	0.93
0.8000	5.0000	749.76915	N/A	N/A	N/A	0.56
0.9000	10.0000	549.96613	N/A	N/A	N/A	0.41
0.9500	20.0000	421.08723	N/A	N/A	N/A	0.31
0.9600	25.0000	389.60278	N/A	N/A	N/A	0.29
0.9800	50.0000	313.74885	N/A	N/A	N/A	0.23
0.9900	100.0000	262.14860	N/A	N/A	N/A	0.19
0.9950	200.0000	226.83985	N/A	N/A	N/A	0.17
0.9980	500.0000	196.55394	N/A	N/A	N/A	0.15
0.9990	1000.0000	181.79316	N/A	N/A	N/A	0.14

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.157
(2) - AT POINT 4: 0.157

FOR 5 SMALLEST POINTS - (1): 0.157
(2): 0.157

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

GUMBEL DISTRIBUTION FOR LOW VALUES - METHOD OF MOMENTS



AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

PEARSON TYPE III DISTRIBUTION -METHOD OF MOMENTS

MEAN= 17 13 S.D.= 669.73 SKEW COEF.= 0.7347

A= 246.04 B= 6.4095 MU= -476.6148

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

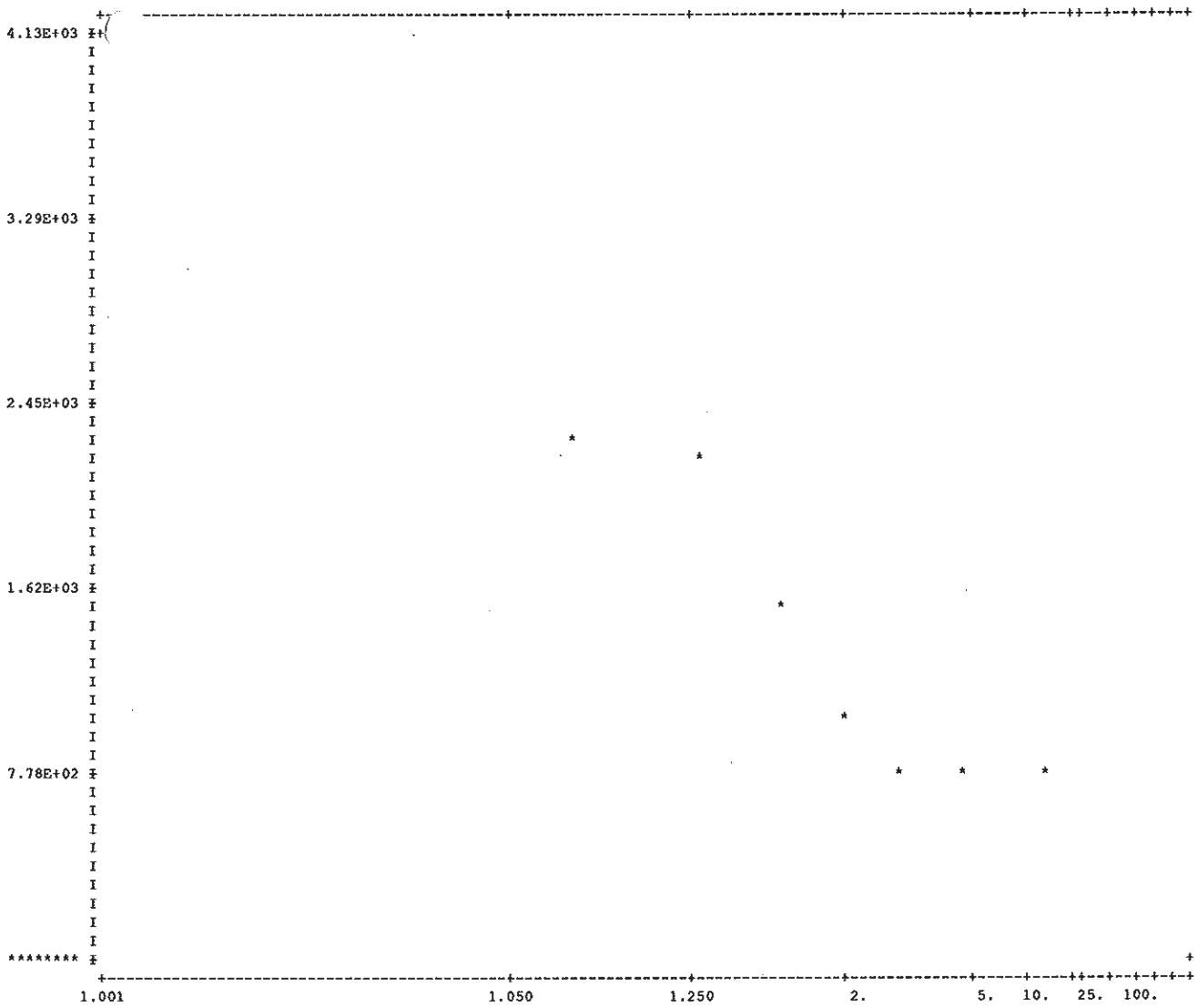
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	4125.8659	1017.1949	7079.8541	1171.8778	3.06
0.0500	1.0526	2569.2495	547.80355	4160.1002	978.39876	1.91
0.2000	1.2500	1873.2050	359.10209	2916.0566	830.35340	1.39
0.5000	2.0000	1265.0756	242.94565	1970.6027	559.54848	0.94
0.8000	5.0000	772.61971	238.28708	1464.6181	80.621312	0.57
0.9000	10.0000	557.97268	266.52255	1331.9684	-216.02302	0.41
0.9500	20.0000	395.31957	296.63695	1256.7691	-466.12996	0.29
0.9600	25.0000	359.11306	304.12351	1242.3039	-524.07782	0.27
0.9800	50.0000	246.02636	328.98800	1201.4250	-709.37232	0.18
0.9900	100.0000	154.08392	350.60436	1172.2577	-864.08983	0.11
0.9950	200.0000	77.592199	369.37505	1150.2770	-995.09265	0.06
0.9980	500.0000	-5.8945886	390.54910	1128.2808	-1140.0700	0.00
0.9990	1000.0000	-58.777912	404.28288	1115.2811	-1232.8370	-0.04

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.171
(2) - AT POINT 4: 0.171

FOR 5 SMALLEST POINTS - (1): 0.171
(2): 0.171

ROBBINS CREEK ABOVE DISDERO LAKE 08LE078 D.A. 32.1 SQ.KM. FREQUENCY ANALYSIS - PAGE 7
AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

PEARSON TYPE III DISTRIBUTION -METHOD OF MOMENTS



AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-PEARSON TYPE III -METHOD OF MOMENTS

MEAN= 10 S.D.= 0.48 SKEW COEF.= 0.5122

A= 0.12302 B= 14.2467 MU= 5.2277

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

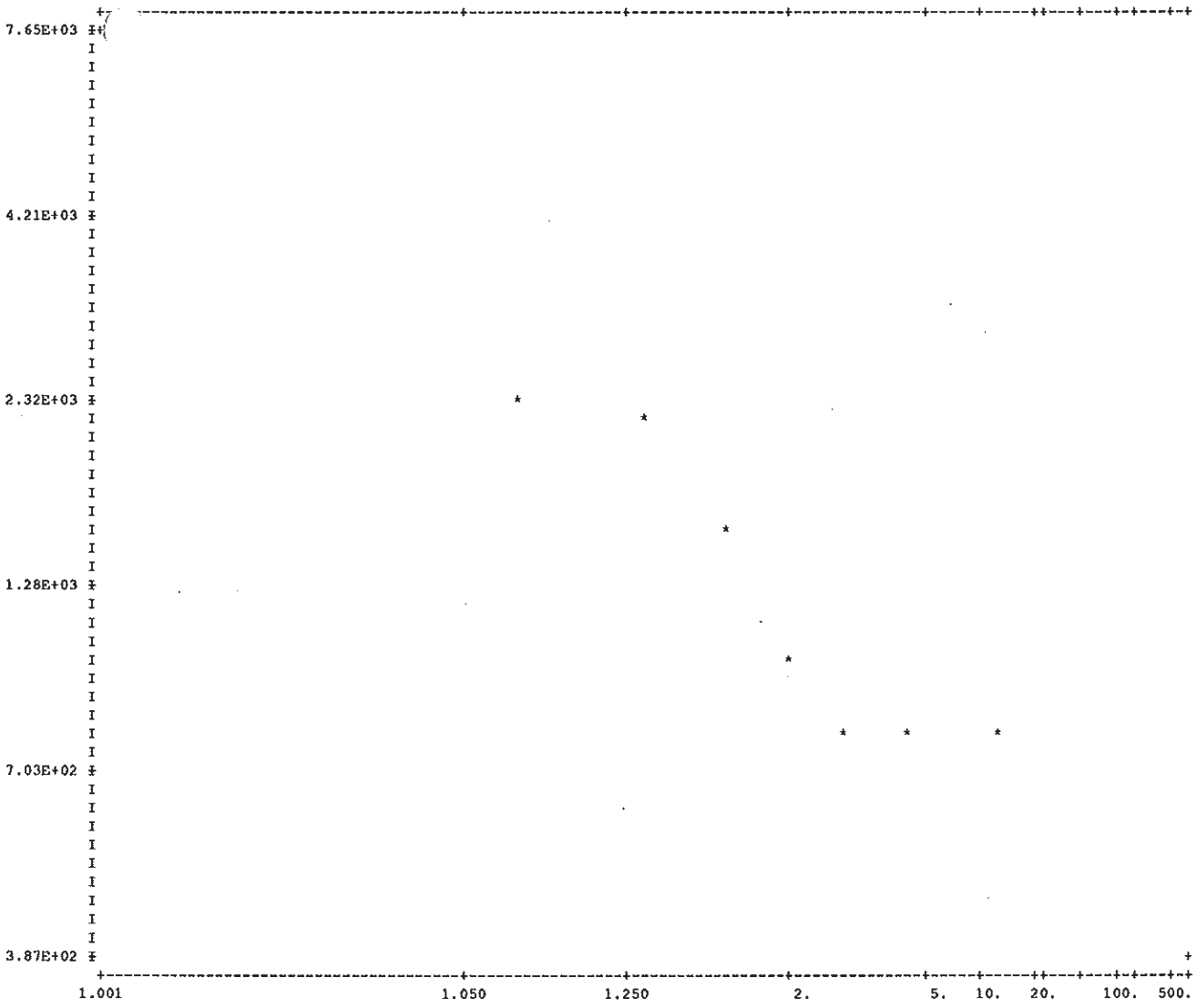
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	7651.4151	7801.9294	46571.519	1257.0806	5.68
0.0500	1.0526	2855.7466	1198.3647	7981.9468	1021.7168	2.12
0.2000	1.2500	1792.1728	474.41558	3638.2630	882.80678	1.33
0.5000	2.0000	1167.4426	217.14001	1957.4475	696.27522	0.87
0.8000	5.0000	805.83978	153.21333	1365.4553	475.57598	0.60
0.9000	10.0000	678.60257	146.54800	1226.5966	375.43022	0.50
0.9500	20.0000	592.69145	145.02778	1148.2626	305.92579	0.44
0.9600	25.0000	574.01608	144.89887	1132.5258	290.93770	0.43
0.9800	50.0000	519.50920	144.76306	1088.7002	247.90094	0.39
0.9900	100.0000	477.54002	144.77693	1056.6900	215.81018	0.35
0.9950	200.0000	444.07800	144.77407	1031.9609	191.09762	0.33
0.9980	500.0000	408.91702	144.68645	1006.4893	166.13502	0.30
0.9990	1000.0000	387.29987	144.55959	990.98347	151.36598	0.29

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 5: 0.156
(2) - AT POINT 5: 0.170

FOR 5 SMALLEST POINTS - (1): 0.156
(2): 0.170

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-PEARSON TYPE III -METHOD OF MOMENTS



AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

PLOTTING POSITIONS (PROBABILITIY PERCENTS, RECURRENCE INTERVALS AND MAGNITUDES)

MAGNITUDE	HAZEN FORMULA		WEIBULL FORMULA		UNBIASED FORMULA (USED FOR PLOTTING)	
	PROB. PERCENT	REC. INTERVAL	PROB. PERCENT	REC. INTERVAL	PROB. PERCENT	REC. INTERVAL
2322.00	92.9	1.077	87.5	1.143	91.7	1.091
2165.00	78.6	1.273	75.0	1.333	77.8	1.286
1551.00	64.3	1.556	62.5	1.600	63.9	1.565
993.000	50.0	2.000	50.0	2.000	50.0	2.000
812.000	35.7	2.800	37.5	2.667	36.1	2.769
797.000	21.4	4.667	25.0	4.000	22.2	4.500
785.000	7.1	14.000	12.5	8.000	8.3	12.000

Robbins Creek Meeting File: 76800.20

Date June 27th 1994; 7pm - 10:30 pm
Location: Barnhartvale Community Hall.

A list of those in attendance at the meeting is attached to these minutes. Almost all of the Robbins Creek licensees were present. Handouts were available at the door of the Robbins Creek watershed, a list of all Robbins Creek licences and an irrigation guideline.

Ron Smith gave the introduction making mention of Water Managements vision of a sustained and healthy water resource.

1. s.22 Application

Mike Edwards explained the water licence application by s.22 against an overhead of the Robbins Creek Watershed (attached). It was explained that the proposed reservoir capacity was presently 126 ac.ft which could be increased to 200 ac.ft if considerable excavation work was done. As this would require the removal of more than 200,000 cu.yds of soil, this was probably not feasible. s.22 only wants to divert excess freshet water and feels that an intake could be designed to accommodate this.
13/4 miles of 14 inch diameter buried pipe could convey 126 ac.ft in a 2 week period.

Three overheads were shown of the Robbins Creek flows for WSC Stations 08LE022 and 08LE078 (attached) illustrating the freshet period normally ends by June 30. An explanation of licenced base flow demand and water available for storage was made and illustrated using the hydrographs.

Referring to the watershed map, a summary was made of the interwatershed diversion licences into Buse Creek as well as the flood irrigation licences.

An overhead was shown illustrating the supply vs demand for Robbins Creek (attached). This showed that for the period April 1 to June 30, the licenced demand was 934 ac.ft and the 1-in-5 year freshet drought volume was 797 ac.ft.

Those in attendance were informed that until the application had been investigated the proposed point of diversion on Robbins Creek was unkn n and thus all letters of objection were accepted as legal objections. As only those licensees downstream of the proposed POD could be adversely affected, those licensees located upstream of the proposed POD would not be considered as legal objectors; however, their concerns on water shortages on the creek would be accepted as comments on the availability of water.

It was explained that before any decision was made, the actual use of water on Robbins Creek would be reviewed. This would include the ditch losses associated with the diversion ditch into Buse Creek as well as the flood irrigation licence for 168 ac.ft on the former s.22 property. (now s.22). Edwards noted that he had already arranged to meet with s.22 and s.22 in this regard.

There was much heated discussion and questions that followed. The main point raised being that there wasn't enough water in Robbins Creek to satisfy existing licences and therefore the s.22 application should be refused. Concern was also expressed that water released from the Little Disdero Lakes storage reservoir could be diverted by s.22 before reaching downstream licensees. Another point raised was that s.22 's proposed storage site was alkali soil and would make any water unusable for irrigation purpose. Others mentioned that they had previously been told by the Water Rights Branch that there was no possibility of getting additional rights on Robbins Creek and that s.22 s.22 s application for 100 ac.ft for storage and irrigation had been refused on the grounds that there was no more water available. Several people stated that if any water became available on Robbins Creek, existing licensees should have first option on getting additional water rights.

The licensing process as regulated under the Water Act was outlined. s.22 s.22 was given an opportunity to present his application but he declined to do so.

2. <u>Water Bailiff</u>

Edwards gave a brief history of the water bailiff on Robbins Creek and his duties. The licensees were informed that the bailiff would be required to

keep a record of his hours and mileage and fees would be assessed to the licensees based on $10 per licensee plus the percentage of licensing. Previously the bailiff had not required any monetary compensation for his service.

Licensees were encouraged to conserve water. Rotational irrigation schedules were encouraged, and licensees were urged to measure how much water they are actually using.

An overhead of the irrigation guidelines handout was shown. It was explained how to calculate the number of sprinklers or g.p.m. authorized under their licence from the licenced acre-feet.

3. Water User's Community

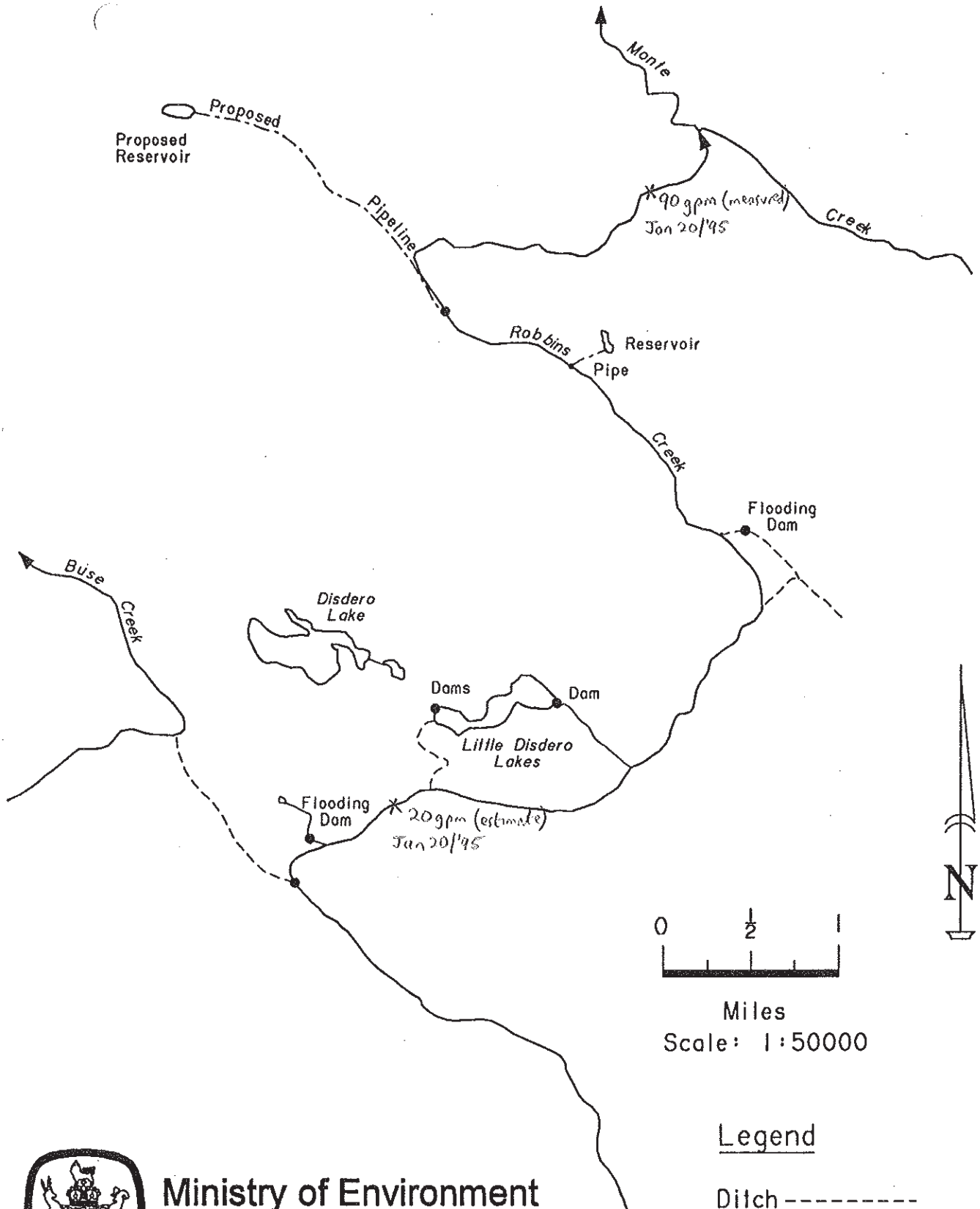
Ron Smith gave a brief presentation of the formation of a WUC with its advantages/disadvantages.

M. Edwards

M. Edwards

(Note: Meeting summary was written from notes taken during the meeting on June 27th, 1994)

Robbins Creek Watershed

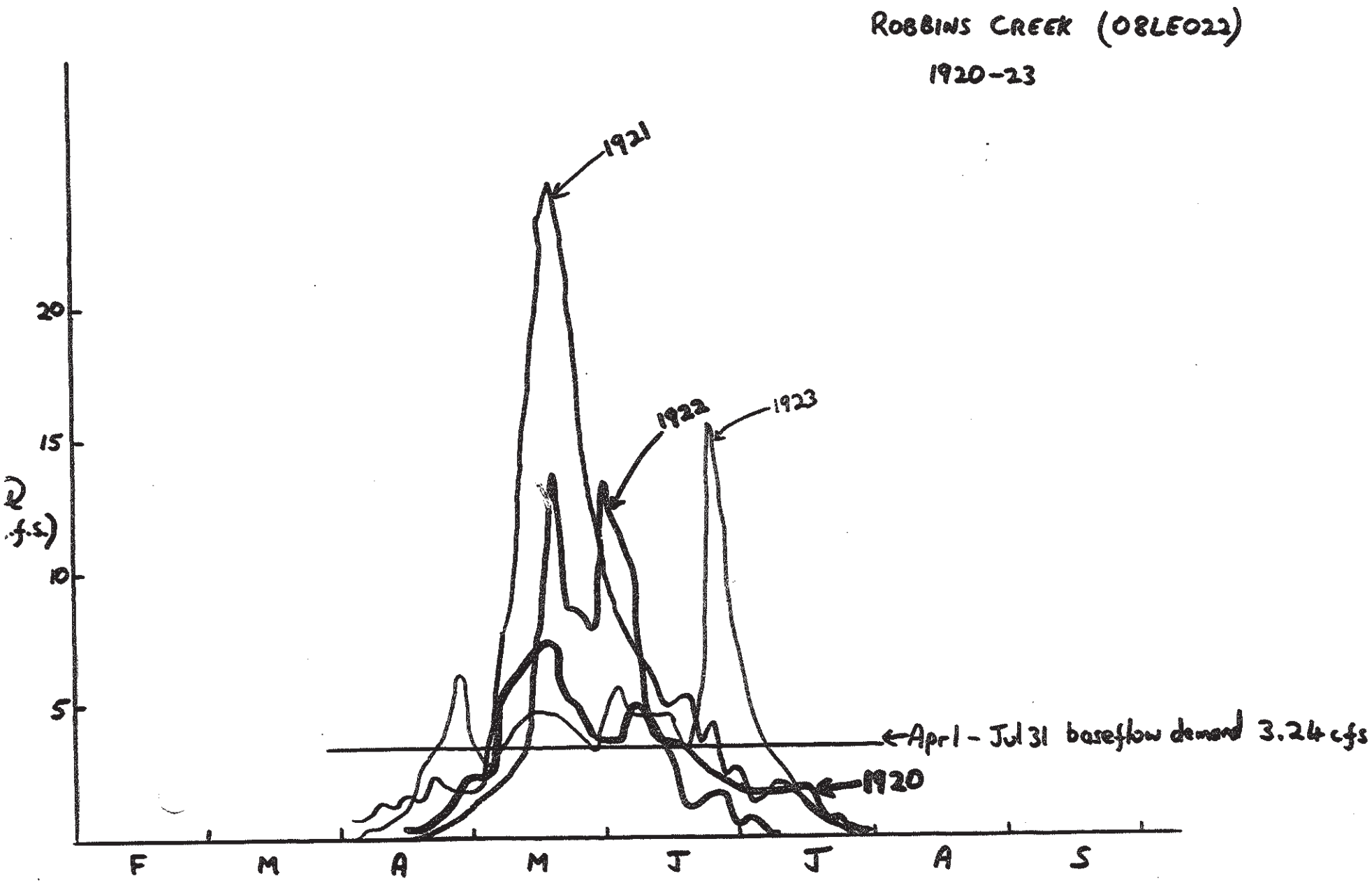


Legend

Ditch ---------

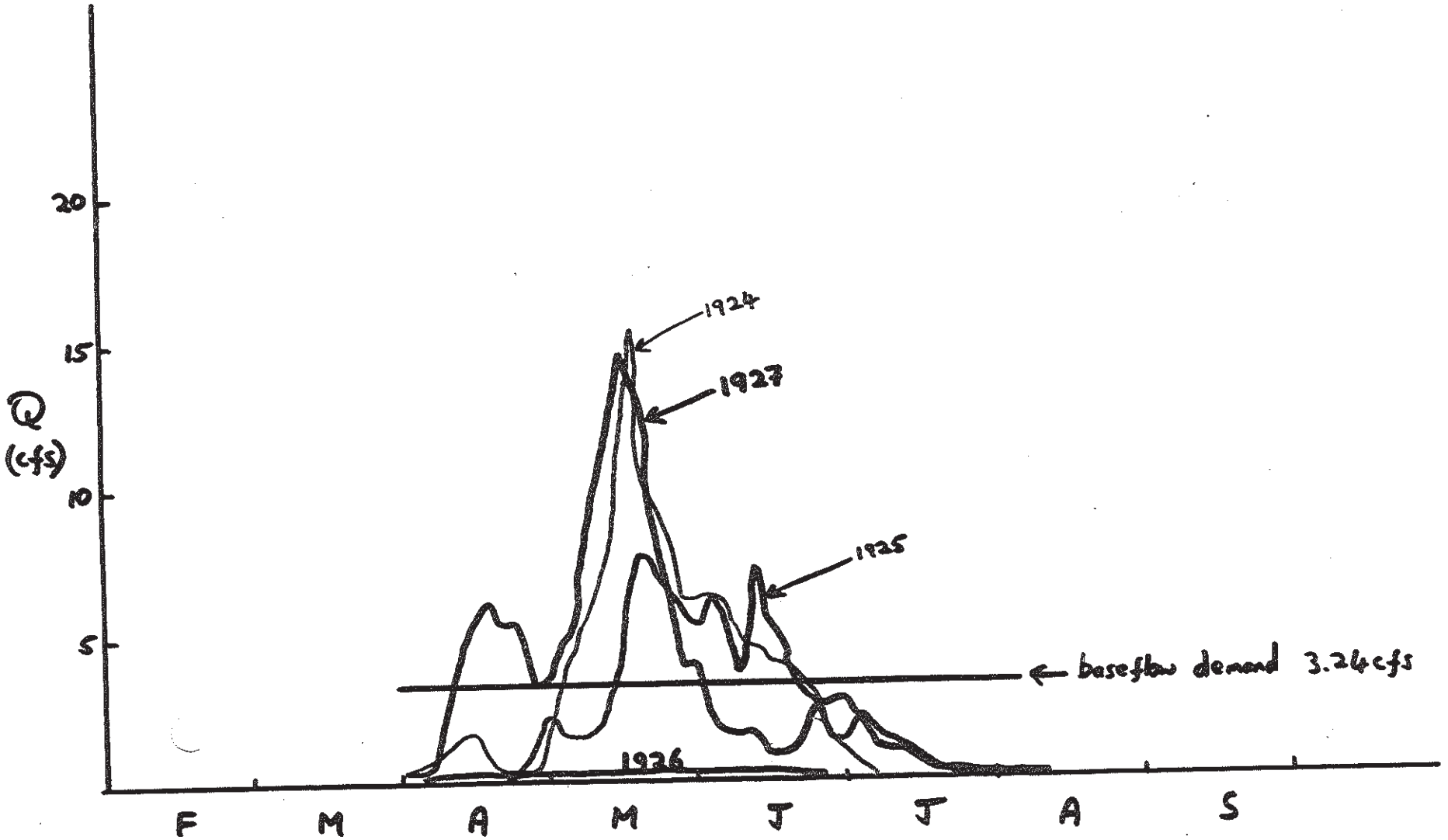
Pipe -.-.-.-.-

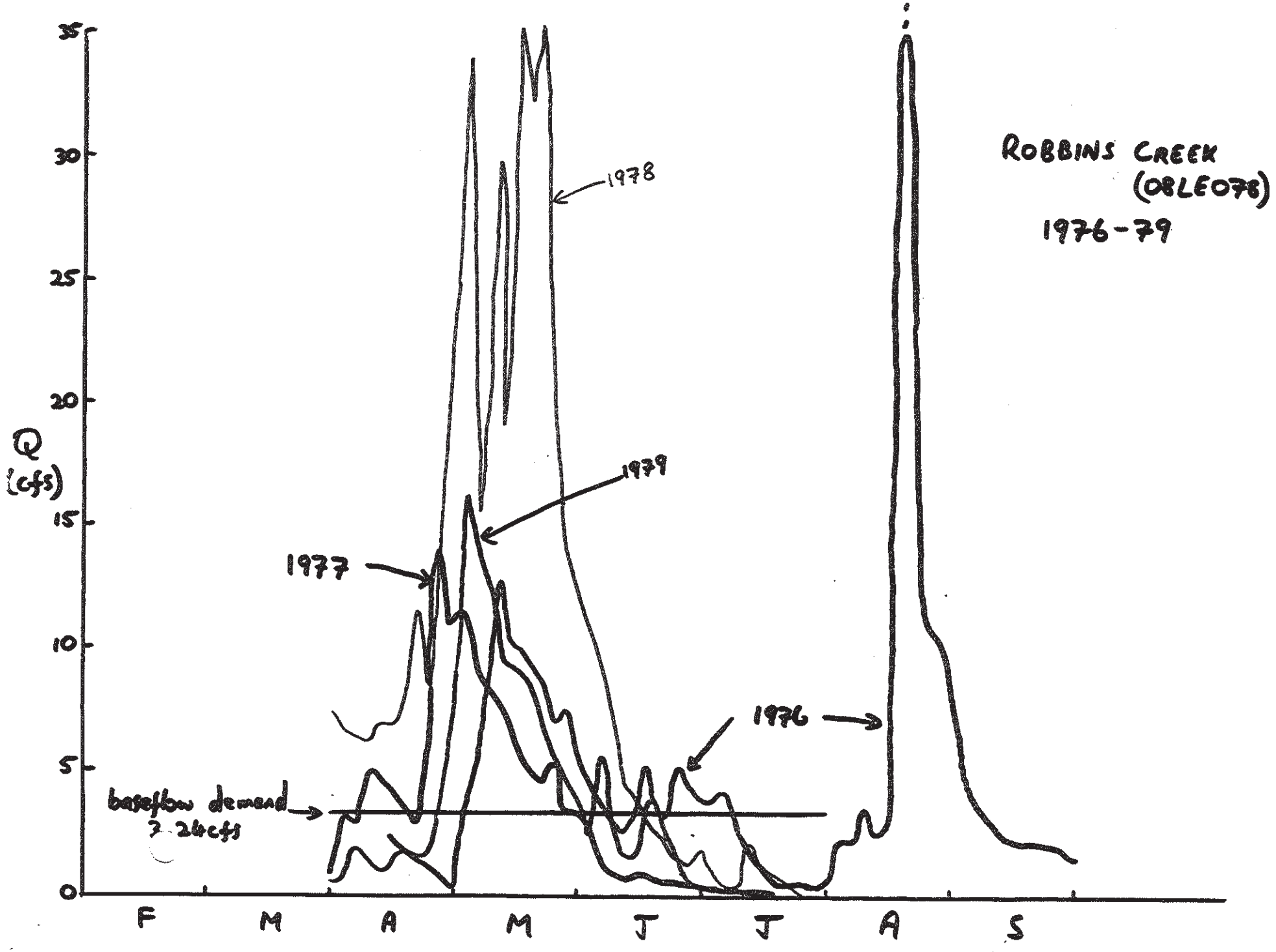
Ministry of Environment
Water Management Branch


ROBBINS CREEK (08LE022)
1920-23
1921
1922
1923
1920
20
15
10
5
Q (c.f.s.)
←Apr 1 - Jul 31 baseflow demand 3.24 cfs
F
M
A
M
J
J
A
S

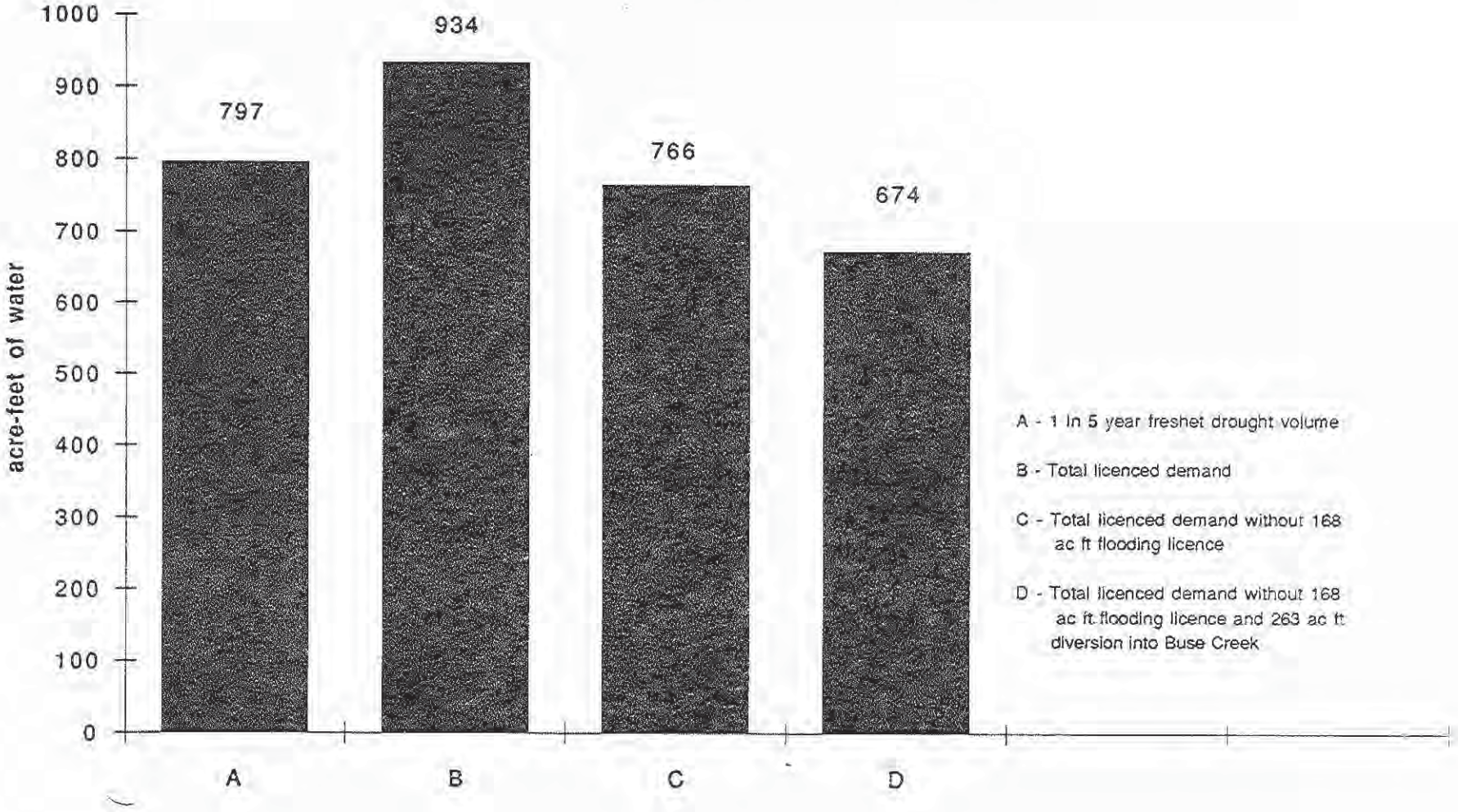
ROBBINS Creek (08LE022)

1924-27




ROBBINS CREEK
(OBLE078)
1976-79
1978
1979
1977
1976
baseflow demand
3.2 cfs
Q
(cfs)
35
30
25
20
15
10
5
0
F
M
A
M
J
J
A
S

ROBBINS CREEK SUPPLY vs DEMAND (APRIL1 - June 30)



WATER LICENCE APPLICATION REPORT- REFUSAL

Water District: Kamloops

File: 3002530

Applicant: s.22

Precinct: Ducks

Address: s.22

Source: Robbins Creek

Trib. to: Monte Creek

Priority: July 16, 1993

Appurtenant Land: Legal Subdivision 15 of Section 14, Tp.19, R.15, W6M, KDYD.

Works not constructed : diversion structure, pump, pipe and sprinkler system.

I recommend that the application be REFUSED for:

Purpose	Quantity	Duty	Acres	Period of Use
Irrigation	n/a	n/a	n/a	n/a

A. ADMINISTRATIVE REPORT:

1. Robbins Creek has already been noted in the stream register as fully recorded for all purposes including storage.

2. The objections by s.22 s.22 are deemed valid and will be upheld by refusal of the application.

B. TECHNICAL REPORT:

1. **General Comments:**

The Robbins Creek watershed has a northerly aspect and drains from the Monte Hills. It has a drainage area of 66 km^2 and an elevation range from 450m to 1800m. There has been extensive logging in the upper part of the watershed. Little Disdero Lakes is a storage reservoir and has an elevation of 930 m. The watershed is heavily licensed.

2. **Summary of Licensed Demand:**

8 Domestic Licences	7250 gallons a day
27 Irrigation Licences	1101.07 acre-feet
1 Flood Irrigation Licence	168 acre-feet (Apr1 - Jun 30)
20 Storage Licences	496.6 acre-feet

Licenced Demand Apr1 - Jun 30
Assuming that 35% of the irrigation demand occurs between April 1st and June 30th:

Total licensed demand = 2.4 + 0.35 (1101.07 - 496.6) + 551.6* + 168
=933.54 acre-feet.

* includes 55 acre-feet for evaporation losses from storage reservoir.

Licenced Demand Jul1- Sep 30
The daily seasonal demand = 7250 gad +1101.07ac.ft.
= 0.015 + 4.624 cfs
=4.639 cfs (based on 120-day irrigation period)

.../2

WATER LICENCE APPLICATION REPORT- REFUSAL

3. **Hydrological Information:**

There are seven years of streamflow records at WSC Station 08LE078 (Robbins Creek above Disdero Creek) from 1968 to 1979 with a drainage area of 32.1 km^2.
There are also eight years of record for WSC Station 08LE022 (Robbins Creek near Robbins Range) from 1920 to 1927 with a drainage area of 15.5 km^2.

There are no streamflow records for the period October 1 to March 31 as the WSC gauges were seasonal. However a flow of 20 gpm was estimated upstream of the diversion point into the Little Disdero Lakes reservoir on January 25, 1995. It may therefore be assumed that the flows during the period October 1 to March 31 are not significant for storage.

The hydrographs for the WSC streamflow records on Robbins Creek are plotted in Figures 1,2 and 3. From the hydrographs it can be seen that the freshet mostly occurs between April 1st and June 30th although on some years freshet flows had dropped below the licensed baseflow requirement by June 15th. It may also be that the logging that has occurred in the upper watershed has resulted in an earlier freshet.

The hydrographs also show that the daily seasonal demand cannot be satisfied from baseflow after June 30th, and in some years after June 15th, thus showing why irrigation licences have been backed by storage.

A frequency analysis was done for WSC Station 08LE078 on Robbins Creek (see file). The following 1-in-5 year drought freshet volume runoff estimates for the period April 1st to June 30th were obtained:

Distribution	Volume Runoff (acre-feet)
Log Normal	812
Pearson Type III	773
Log Pearson Type III	806
Average	797

(Note: The Gumbel distribution was not used as there were no upper or lower 95% confidence limits).

During the adjudication of application 0364268, the applicant measured flows in Robbins Creek below all diversions during March, April, May and June for the years 1979, 1980 and 1981. During 2 of the 3 years that flow measurements were taken there were insufficient flows in Robbins Creek to satisfy existing licensed demand. Only in 1981 were flows in excess of the licensed demand, and this because of a "very wet spring".

.../3

WATER LICENCE APPLICATION REPORT- REFUSAL

Recommendations:

As the total licensed demand for the period April 1st to June 30th is 933.54 acre-feet and the 1-in-5 year drought freshet volume runoff estimate for the same period is 797 acre-feet there does not appear to be sufficient water to satisfy existing licences even if backed by storage.

This conclusion is in agreement with the findings in the adjudication of applications 0364268 and 3002066, both of which were refused for storage purpose.

It is therefore recommended that the application be refused.

Report by: M. Edwards

M. Edwards
Water Management Officer
Southern Interior Region

Date: February 4, 1997

Approved by: Dan L. McKee

Date: Dec 17/02

~~Kevin M.~~ Dickenson, P.Eng.
Assistant Regional Water Manager
Southern Interior Region

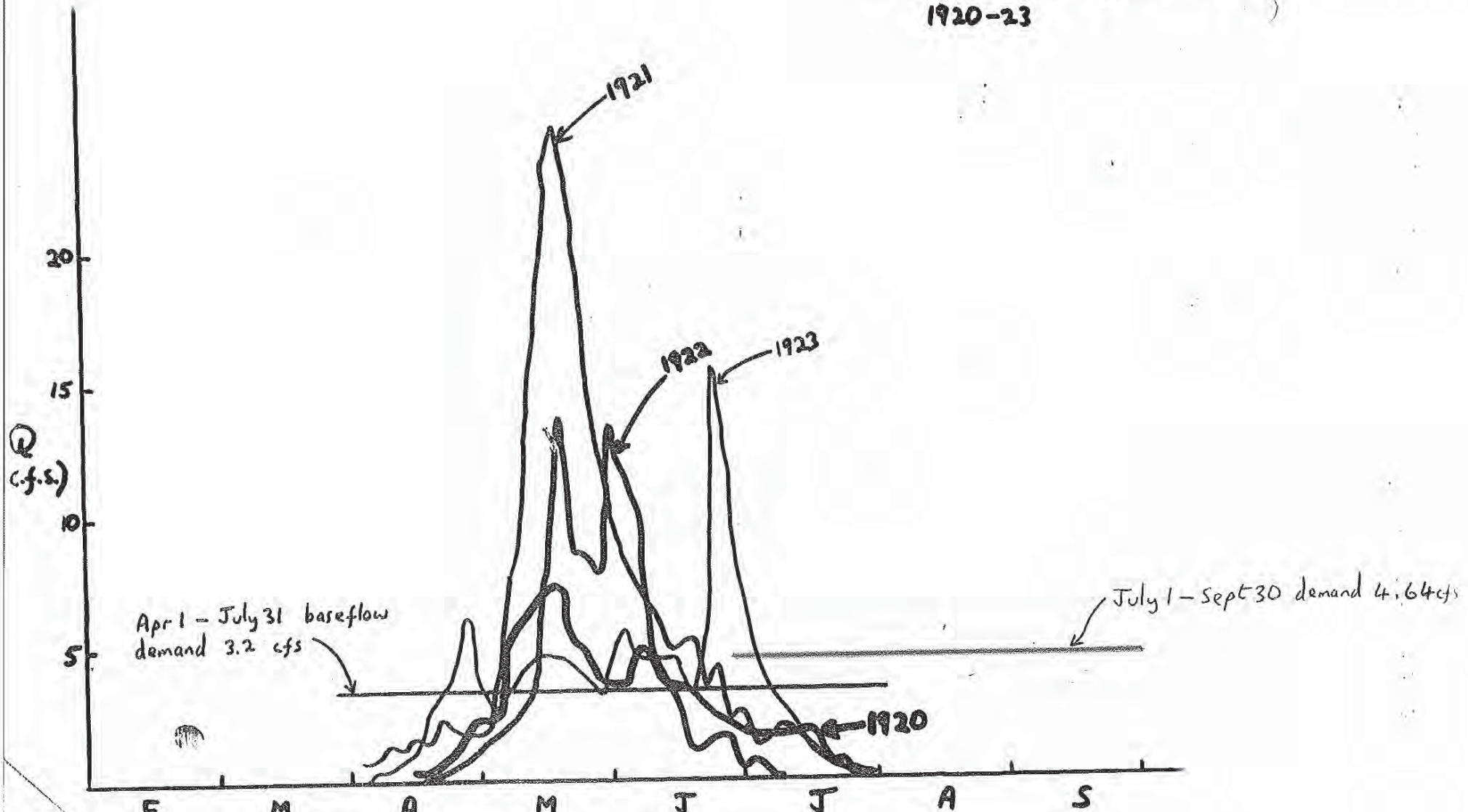

ROBBINS CREEK (08LE022)
1920-23
1921
1922
1923
1920
20
15
10
5
Q
(c.f.s.)
Apr 1 – July 31 baseflow
demand 3.2 cfs
July 1 – Sept 30 demand 4.64cfs
F
M
A
M
J
J
A
S

FIGURE 1.

ROBBINS Creek (08LE022)

1924-27

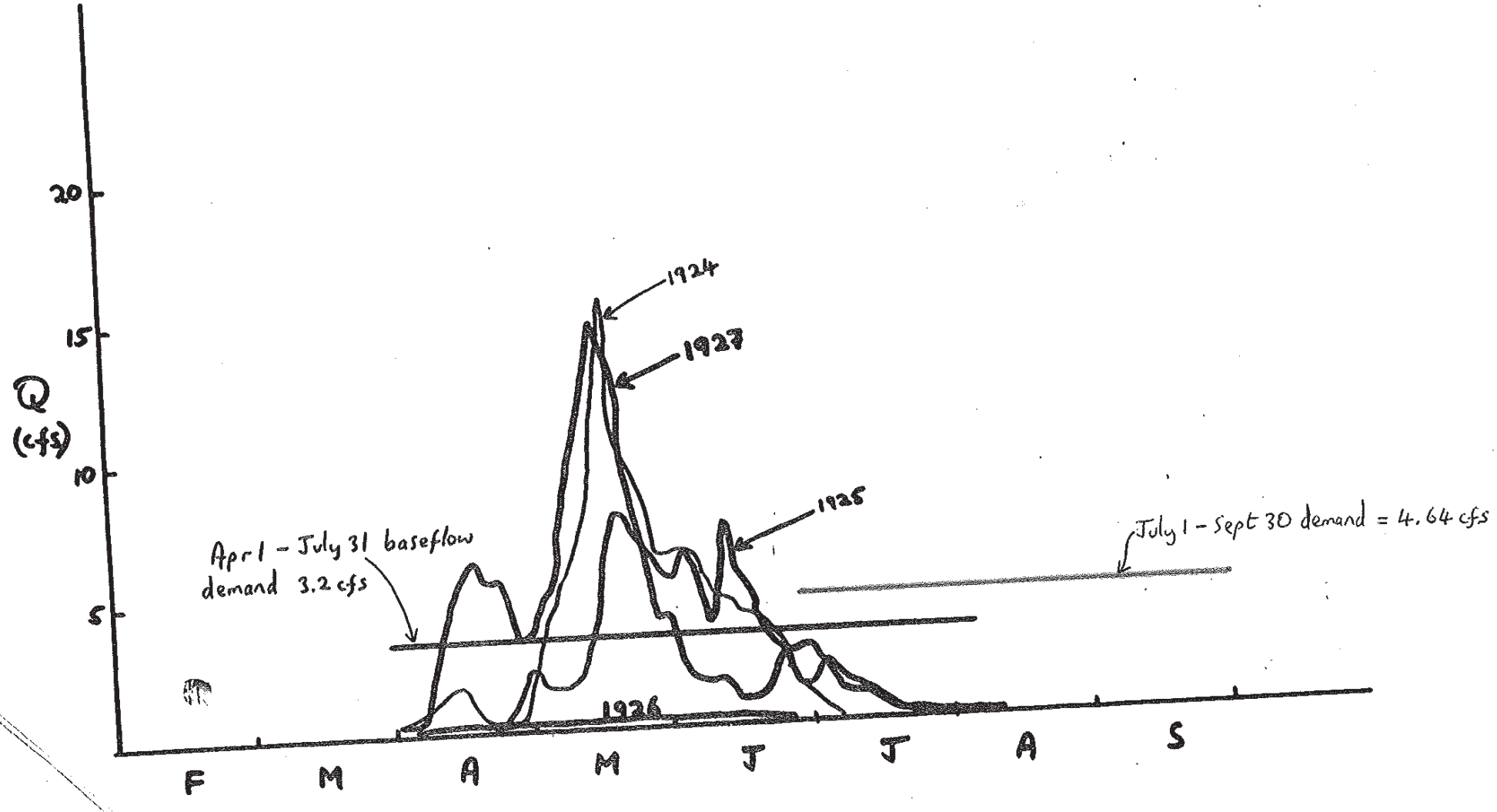


FIGURE 2.

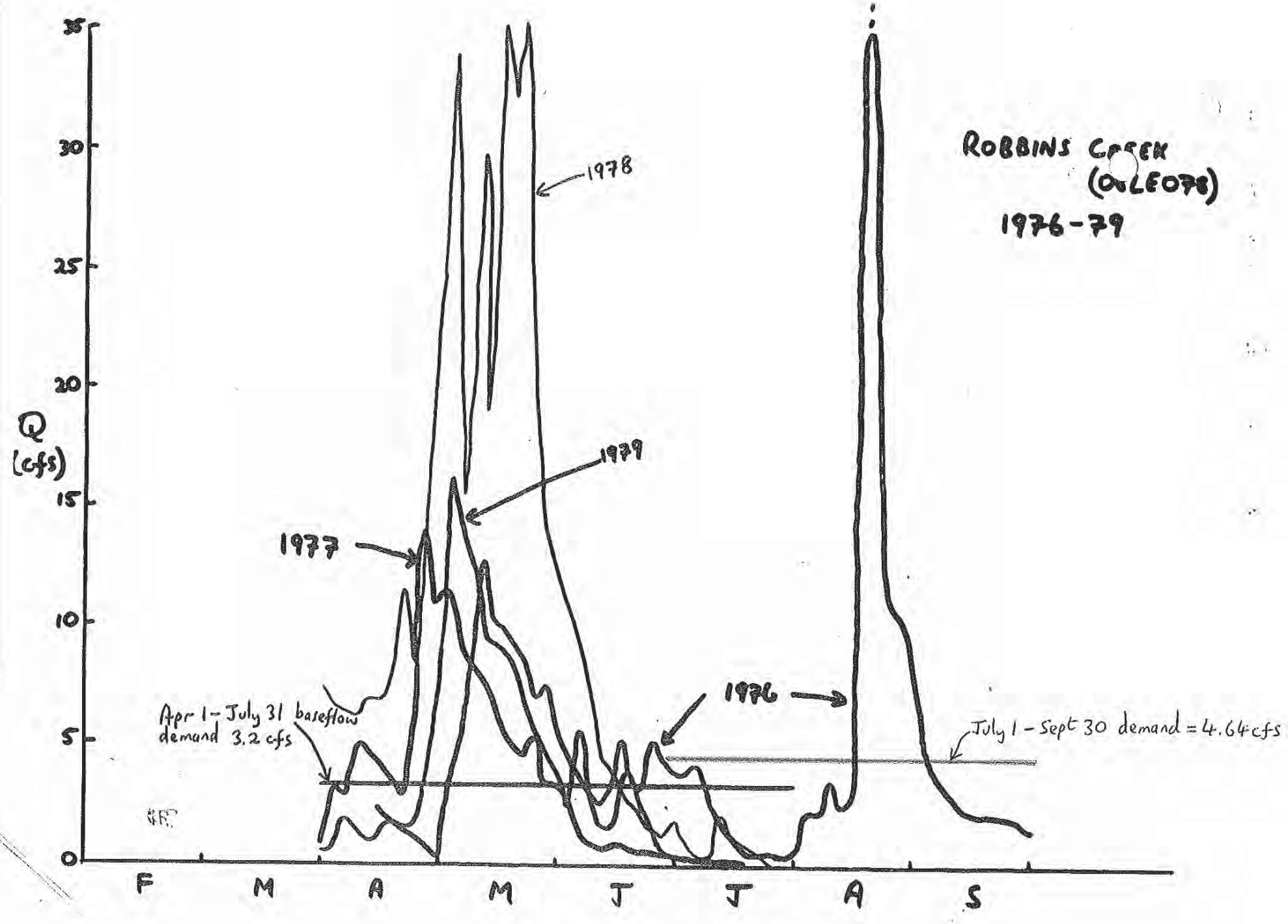

ROBBINS CREEK
(OLEO78)
1976-79
1978
1979
1977
1976
Apr 1 - July 31 baseflow
demand 3.2 cfs
July 1 - Sept 30 demand = 4.64 cfs
Q
(cfs)
35
30
25
20
15
10
5
0
F
M
A
M
J
J
A
S

FIGURE 3.

FREQAN.OUT; 6

CREEK MAY 19,1994 FREQUENCY ANALYSIS - PAGE 1

ROBBINS CREEK ABOVE DISDERO ~~LAKE~~ 08LE078 D.A. 32.1 SQ.KM.
AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979
INCLUSIVE
INPUT DATA (acre-feet)

993.000 .551.00 2165.00 812.000 785.000 2322.00 797.000

NO. OF INPU..ATA VALUES 7

MAXIMUM	2322.00
MINIMUM	785.000
RANGE	1537.00
MEDIAN	993.000
MEAN	1346.43
VARIANCE	448541.
STANDARD DEVIATION	669.732
COEFFICIENT OF VARIATION	0.497414
COEFFICIENT OF SKEW	0.734741

1-in-5 year

① Log Normal : 812 ac.ft.

[Gumbel : 750 ac ft - no upper or lower confidence limits]

② Pearson Type III : 773 ac.ft

③ Log Pearson Type III : 806 ac.ft.

①,②+③ Average: 797 ac.ft. (unit runoff is 24.8 ac.ft/km²)

1-in-5 year for 08LE022 (D.A. 15.5 km²) is 376 ac ft. (unit runoff is 24.3 ac ft/km²)

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-NORMAL DISTRIBUTION (THREE-PARAMETER) -METHOD OF MAXIMUM LIKELIHOOD

LOWER BOUNDARY PARAMETER: 0.000000E+00

STATISTICS OF THE LOG-TRANSFORMED REDUCED INPUT DATA
MEAN= 7.10340 STANDARD DEVIATION= 0.480368 COEF. OF SKEW= 0.512203

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

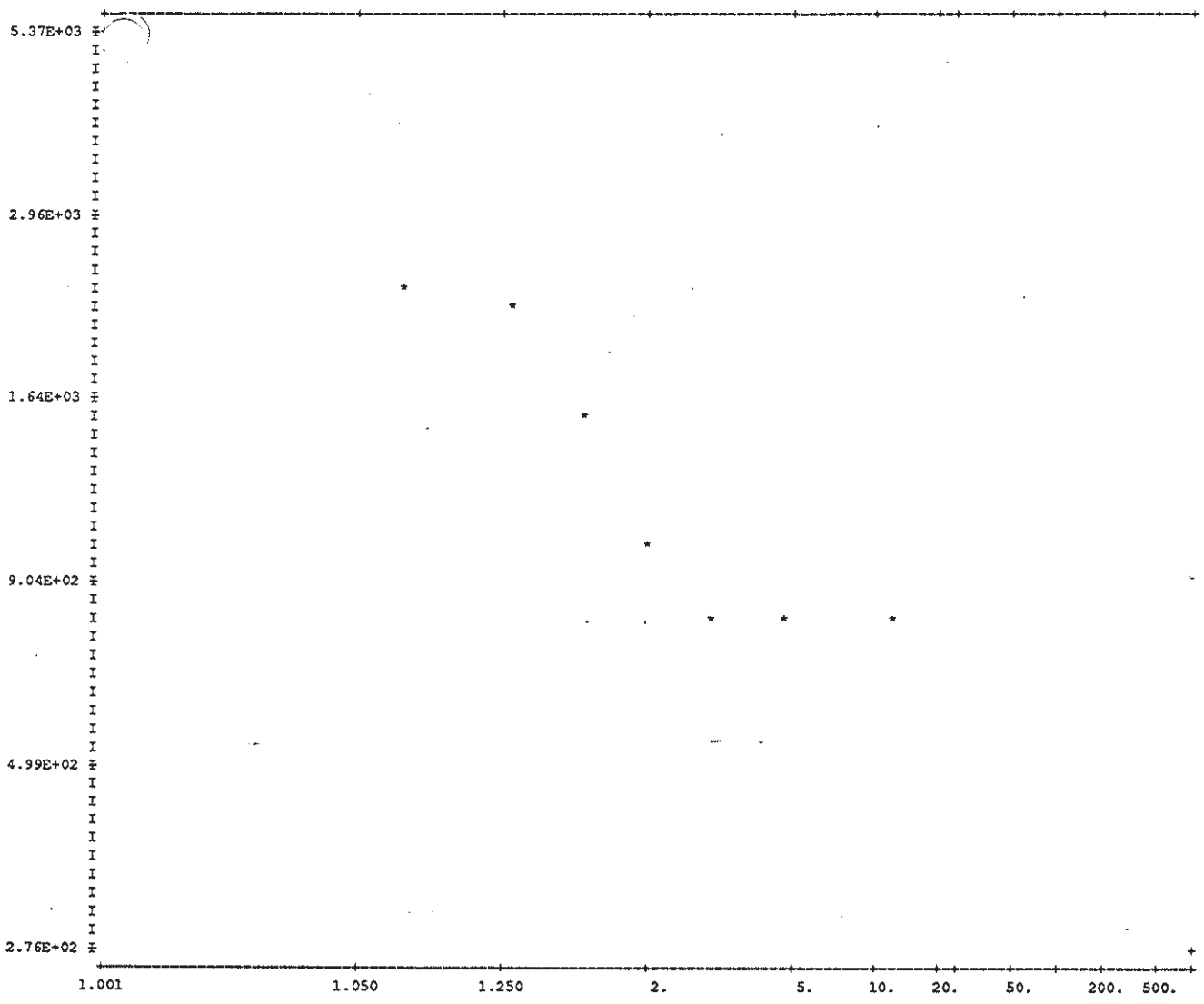
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	5366.7938	3020.7207	19056.123	1511.4552	3.99
0.0500	1.0526	2680.3425	830.65878	6018.2888	1193.7340	1.99
0.2000	1.2500	1821.8515	409.51075	3364.8874	986.40533	1.35
0.5000	2.0000	1216.0921	231.17008	2060.4178	717.75729	0.90
0.8000	5.0000	811.74558	182.46193	1499.2619	439.50353	0.60
0.9000	10.0000	657.00732	174.92548	1338.4840	322.49815	0.49
0.9500	20.0000	551.80335	170.99365	1238.9178	245.76847	0.41
0.9600	25.0000	524.39013	169.95642	1213.6937	226.56870	0.39
0.9800	50.0000	453.33428	166.98699	1148.7749	178.89665	0.34
0.9900	100.0000	397.69340	164.16190	1097.5700	144.10018	0.30
0.9950	200.0000	352.78311	161.38640	1055.2852	117.93582	0.26
0.9980	500.0000	305.10394	157.77600	1008.6683	92.288433	0.23
0.9990	1000.0000	275.56116	155.10066	978.44775	77.606547	0.20

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.163
(2) - AT POINT 5: 0.175

FOR 5 SMALLEST POINTS - (1): 0.163
(2): 0.175

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-NORMAL DISTRIBUTION (THREE-PARAMETER) -METHOD OF MAXIMUM LIKELIHOOD



R[illegible] S CREEK ABOVE DISDERO LAKE 08LE078 D.A. 32.1 SQ.KM. FREQUENCY ANALYSIS - PAGE 4
AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

GUMBEL DISTRIBUTION FOR LOW VALUES - METHOD OF MOMENTS

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

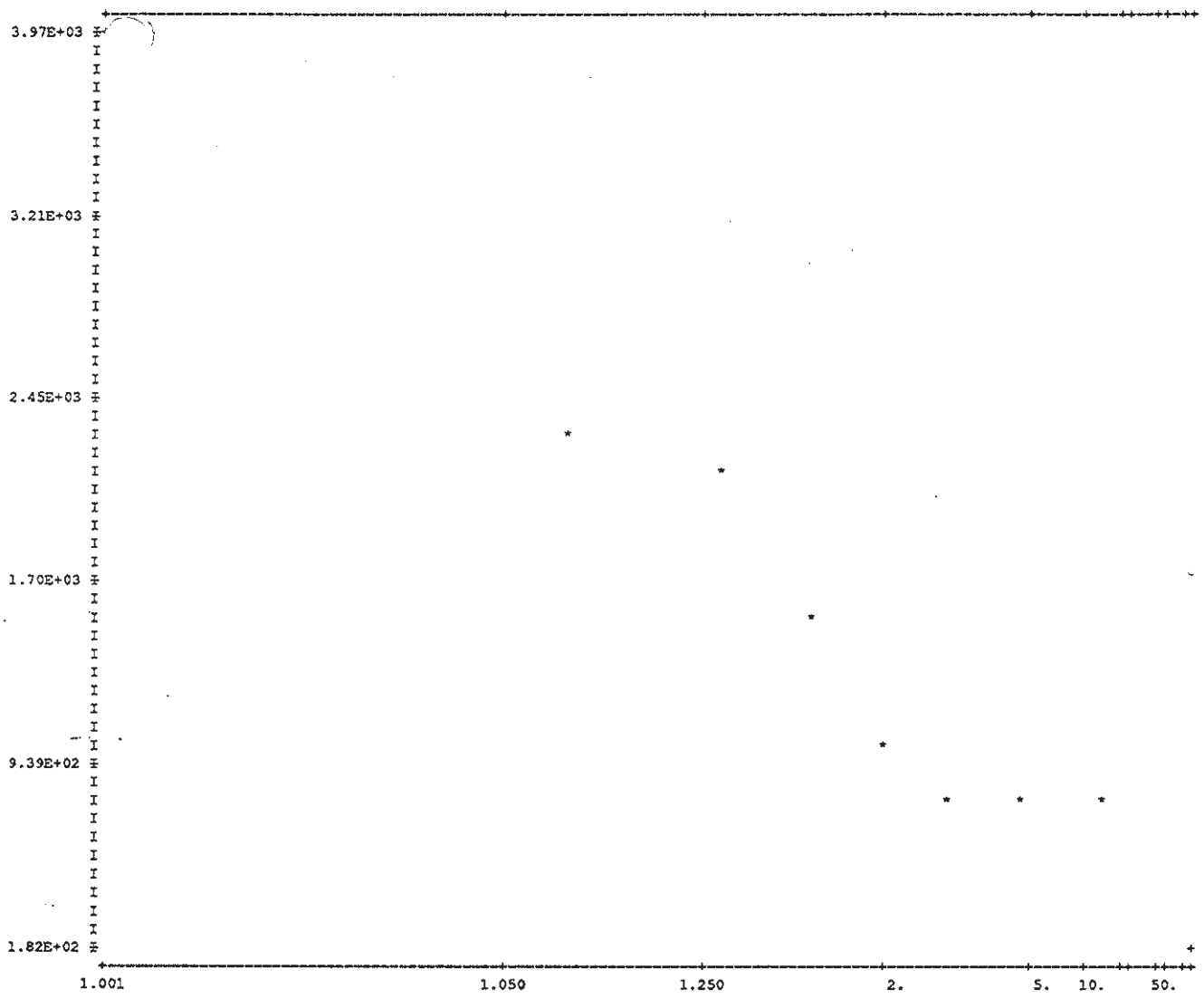
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	3970.0340	N/A	N/A	N/A	2.95
0.0500	1.0526	2584.5873	N/A	N/A	N/A	1.92
0.2000	1.2500	1891.4657	N/A	N/A	N/A	1.40
0.5000	2.0000	1255.5745	N/A	N/A	N/A	0.93
0.8000	5.0000	749.76915	N/A	N/A	N/A	0.56
0.9000	10.0000	549.96613	N/A	N/A	N/A	0.41
0.9500	20.0000	421.08723	N/A	N/A	N/A	0.31
0.9600	25.0000	389.60278	N/A	N/A	N/A	0.29
0.9800	50.0000	313.74885	N/A	N/A	N/A	0.23
0.9900	100.0000	262.14860	N/A	N/A	N/A	0.19
0.9950	200.0000	226.83985	N/A	N/A	N/A	0.17
0.9980	500.0000	196.55394	N/A	N/A	N/A	0.15
0.9990	1000.0000	181.79316	N/A	N/A	N/A	0.14

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.157
(2) - AT POINT 4: 0.157

FOR 5 SMALLEST POINTS - (1): 0.157
(2): 0.157

AVER.GE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

GUMBEL DISTRIBUTION FOR LOW VALUES - METHOD OF MOMENTS



RO[illegible]S CREEK ABOVE DISDERO LAKE 08LE078 D.A. 32.1 SQ.KM. FREQUENCY ANALYSIS - PAGE 6
AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

PEARSON TYPE III DISTRIBUTION -METHOD OF MOMENTS

MEAN= 1[illegible]13 S.D.= 669.73 SKEW COEF.= 0.7347

A= 246.04 B= 6.4095 MU= -476.6148

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	4125.8659	1017.1949	7079.8541	1171.8778	3.06
0.0500	1.0526	2569.2495	547.80355	4160.1002	978.39876	1.91
0.2000	1.2500	1873.2050	359.10209	2916.0566	830.35340	1.39
0.5000	2.0000	1265.0756	242.94565	1970.6027	559.54848	0.94
0.8000	5.0000	772.61971	238.28708	1464.6181	80.621312	0.57
0.9000	10.0000	557.97268	266.52255	1331.9684	-216.02302	0.41
0.9500	20.0000	395.31957	296.63695	1256.7691	-466.12996	0.29
0.9600	25.0000	359.11306	304.12351	1242.3039	-524.07782	0.27
0.9800	50.0000	246.02636	328.98800	1201.4250	-709.37232	0.18
0.9900	100.0000	154.08392	350.60436	1172.2577	-864.08983	0.11
0.9950	200.0000	77.592199	369.37505	1150.2770	-995.09265	0.06
0.9980	500.0000	-5.8945886	390.54910	1128.2808	-1140.0700	0.00
0.9990	1000.0000	-58.777912	404.28288	1115.2811	-1232.8370	-0.04

KOLMOGOROV-SMIRNOV STATISTIC: (1) - AT POINT 4: 0.171
(2) - AT POINT 4: 0.171

FOR 5 SMALLEST POINTS - (1): 0.171
(2): 0.171

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-PEARSON TYPE III -METHOD OF MOMENTS

MEAN= 10 S.D.= 0.48 SKEW COEF.= 0.5122

A= 0.12302 B= 14.2467 MU= 5.2277

TABLE OF ESTIMATES AND STATISTICAL MEASURES OF THEIR ACCURACY

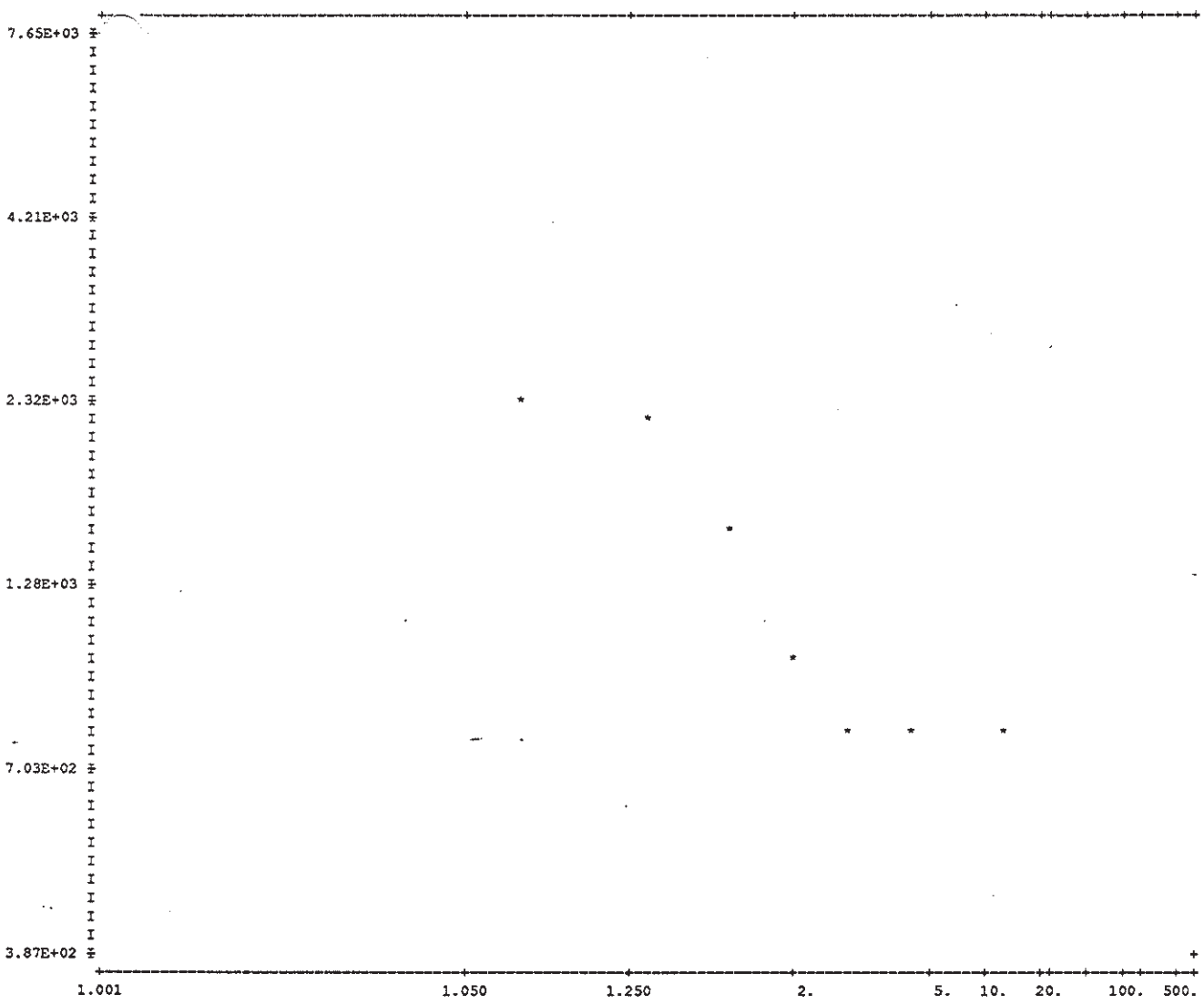
PROBABILITY	RECURRENCE INTERVAL (IN YEARS)	ESTIMATE	STANDARD ERROR OF ESTIMATE	UPPER 95% CONFIDENCE LIMIT	LOWER 95% CONFIDENCE LIMIT	RETURN PERIOD PEAK FLOW TO MEAN PEAK FLOW RATIO
0.0010	1.0010	7651.4151	7801.9294	46571.519	1257.0806	5.68
0.0500	1.0526	2855.7466	1198.3647	7981.9468	1021.7168	2.12
0.2000	1.2500	1792.1728	474.41558	3638.2630	882.80678	1.33
0.5000	2.0000	1167.4426	217.14001	1957.4475	696.27522	0.87
0.8000	5.0000	805.83978	153.21333	1365.4553	475.57598	0.60
0.9000	10.0000	678.60257	146.54800	1226.5966	375.43022	0.50
0.9500	20.0000	592.69145	145.02778	1148.2626	305.92579	0.44
0.9600	25.0000	574.01608	144.89887	1132.5258	290.93770	0.43
0.9800	50.0000	519.50920	144.76306	1088.7002	247.90094	0.39
0.9900	100.0000	477.54002	144.77693	1056.6900	215.81018	0.35
0.9950	200.0000	444.07800	144.77407	1031.9609	191.09762	0.33
0.9980	500.0000	408.91702	144.68645	1006.4893	166.13502	0.30
0.9990	1000.0000	387.29987	144.55959	990.98347	151.36598	0.29

KOLMOGOROV-SMIRNOV STATISTIC: (1) = AT POINT 5: 0.156
(2) = AT POINT 5: 0.170

FOR 5 SMALLEST POINTS = (1): 0.156
(2): 0.170

AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

LOG-PEARSON TYPE III -METHOD OF MOMENTS



AVERAGE (91-DAY) FRESHET VOLUME RUNOFF,DURING APR 1,1968 TO JUN 30,1979

PLOTTING POSITIONS (PROBABILITIY PERCENTS, RECURRENCE INTERVALS AND MAGNITUDES)

M³ /DE	HAZEN FORMULA		WEIBULL FORMULA		UNBIASED FORMULA (USED FOR PLOTTING)	
	PROB. PERCENT	REC. INTERVAL	PROB. PERCENT	REC. INTERVAL	PROB. PERCENT	REC. INTERVAL
2322.00	92.9	1.077	87.5	1.143	91.7	1.091
2165.00	78.6	1.273	75.0	1.333	77.8	1.286
1551.00	64.3	1.556	62.5	1.600	63.9	1.565
993.000	50.0	2.000	50.0	2.000	50.0	2.000
812.000	35.7	2.800	37.5	2.667	36.1	2.769
797.000	21.4	4.667	25.0	4.000	22.2	4.500
785.000	7.1	14.000	12.5	8.000	8.3	12.000

Province of
British Columbia

Ministry of the
Environment

Water Rights Branch
Office of the
Regional Engineer
523 Columbia Street
Kamloops, B.C. V2C 2T9
374-4112

File: 0241429; 0310293;
0323471; 0281382;
0316577; 0290944
0281383; 0178011;
0116666; 0309714;
0265075; 0241432
0241428; 0346137;
0241427; 045-R;

July 10, 1979

s.22

Dear Sirs:

Re: Robbins Creek

Recent investigation of the base flow of Robbins Creek indicates that there is now insufficient water to satisfy the prior water licences of s.22 s.22 s.22 Storage water held under licence by s.22 in Little Disdero Lake is being released in support of their diversion licences.

Since you do not have storage water in Little Disdero Lake which you can now use, and since the base flow of Robbins Creek is insufficient to allow diversion by you, you are instructed to forthwith cease diverting and using water from Robbins Creek for irrigation purposes.

If you have any questions concerning the above, please contact my office.

Yours truly,

D.E. Smuin, P. Eng.
Regional Engineer

DES*ms

cc: s.22
Comptroller of Water Rights, Victoria, B.C.

DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
PARLIAMENT BUILDINGS, VICTORIA, BRITISH COLUMBIA

0241429

COPY

July 20, 1973

s.22

Dear s.22

Your undated letter concerning problems being experienced on Robbins Creek was received here on the 16th instant.

The letter of July 11th, 1973, copy of which you forwarded with your letter, appears to be basically advice to s.22 s.22 to the effect that there was no longer water in Robbins Creek for their licences, and instructing them to cease diverting. This letter is returned to you herewith.

Regarding the continued diversion by s.22 under s.22 Conditional Water Licence 17787, this matter has been discussed by telephone with Mr. Smuin. s.22 is being advised by letter today to the effect that use of water under this licence is conditional on the establishment of storage on Robbins Creek as authorized under his Conditional Water Licence 35254 (formerly Conditional Water Licence 17788) except at such time when the natural flow in the creek exceeds the requirements of licences having an earlier date of priority. He was also advised that no authority exists under any water licence to store water on his meadow on Robbins Creek within NE¼, Section 27, Tp. 18, R5, W6M, and that his action in continuing to use this water at this time could result in a prosecution under Section 41 of the Water Act or a possible legal action by any person who considered he was deprived by such action, of water to which he was lawfully entitled. It is believed that Mr. Smuin is conveying similar advice to s.22 from his office.

With respect to your comments regarding water allowances, I am presuming that you refer to Final Water Licence 4839 which is appurtenant to the s.22 property owned by you. The irrigation allowance under this licence is 143 acre feet of water per annum for the irrigation of 71.4 acres. Based on a 120 days irrigation period,

..... 2

the steady flow requirement to satisfy this licence would be 1.19 acre feet per day or 0.60 cubic feet per second (0.60 c.f.s.). I do not know what allowance Mr. Smuin has made in his calculations for losses in conveyance of your water from the intake on Robbins Creek to the place of use but a figure commonly allowed for loses from irrigation ditches in your area is ten percent of flow per mile of ditch. On this basis, a ten percent allowance for one mile of conveying ditch would result in an entitlement at your point of diversion on Robbins Creek, of 100/90 x 1.19 ac.-ft. = 1.72 acre feet per day, or 0.66 c.f.s. This appears to be very close to the figure that Mr. Smuin has allowed and would be produced by a flow of 3 3/4 inches over a 12 inch suppressed weir, 6 inches high. In case it is of interest to you, a reprint from a section of one of our publications now out of print, entitled "Measurement of Water" is enclosed. Data for the type of weir discussed will be found on pages 16-18 inclusive.

If the length of conveying ditch is 1½ miles rather than one mile as used in the foregoing calculation, I would suggest that you discuss with Mr. Smuin, the possibility of increasing the allowance for conveyance losses in keeping with the actual length of ditch.

Incidental to the foregoing, the measurement discussed above would be made in your ditch as near as possible to the point of diversion or intake on Robbins Creek. This measurement would apply so long as diversions were being made from natural flow of the creek. It is presumed once it became necessary to augment natural flows from storage on Little Disdero Lakes and licences of later priority were shut off, that some arrangement could be made to use water on other than a steady flow basis in order to accommodate your method of furrow irrigation. It is suggested that you discuss this further with Mr. Smuin if you are interested.

With reference to your remarks regarding your method of water application by furrow irrigation, Mr. Smuin has advised that he is quite aware of this. The reason for equating your diversion allowance to a number of sprinklers (at 5 Imp. g.p.m. each) was to enable comparison with the allowances for the other licences listed.

One other item that must be drawn to your attention at this time is the condition of the storage dam owned by you and s.22 s.22 on Little Disdero Lake. Our records indicate the existing dam was constructed in 1949 employing only a D4 Caterpillar

..... 3

s.22 July 20, 1973

tractor for earth moving and compaction. Site preparation, sluice bedding, sluice material (12 inch corrugated pipe) and earth compaction, were all substandard measured by today's standards. This dam is now considered to have reached the end of its useful life and in need of complete replacement if water is to be continued to be stored on Little Disdero Lakes.

Relative to the foregoing, s.22 holds a licence, Conditional Water Licence 35254, authorizing the storage of 150 acre feet of water on Little Disdero Lakes for use under his C.W.L. 17787. I am aware that s.22 has been unable to establish an interest in the existing storage dam on Little Disdero Lake and, therefore, his use of water under C.W.L. 17787 has necessarily been restricted. Since the existing dam is now due for replacement, it is suggested that the time might be opportune for discussions with s.22 with regard to sharing of costs and other responsibilities relative to the rebuilding. You are advised that submission of plans and specifications prepared by a Registered Professional Engineer for approval by the Comptroller of Water Rights is a requirement before any reconstruction is undertaken.

Yours truly,

H. D. DeBeck,
Comptroller of Water Rights.

per:

Enc.

cc: District Engineer, Kamloops.

Copy for / Mr Simeon

Mr DeBeck
Water Right Branch
Victoria. B.C.

Dear Sir

I am sending you a letter I have received from Mr Simeon of the Water off. I have also received a similar letter last year. I would like to know why our water right was cut down from 1.49 cubic feet or 3½ inches over 30 inch weer. to 0.65 cubic feet per second.

I am not sprinkling. I do not know where he get his informations. [redacted] has no right to use the water as they did not build the dam as they were to. and secondly the water in the Lake contain a lot of alkily we had tested last fall in Kelowna and we were instructed not to use too much of it. So we feel that we are not justified to allow to build the dam any higher.

As for the water stored by [redacted] in the [redacted] place they do that in order to flood the place. that water belong to the Robbins Creek. I feel that they should be prosecuted for doing so. The previous Engineers were aware of it. and took care of that

Mrs. [illegible]

[redacted] holder CL 17787 [illegible] & CL 35254 S- on Robbins Cree[k]
[redacted] holder FL4839, 143 ac [illegible] FL4840, 74 ac AS.
allowed [illegible] [illegible] ditch losses?

2

Last year when I received the letter from Mr. Smeun I abide by it. so the water that I was allowed did not reach the place so I lost my second crop on 15 acres of Alfalfa, and the bulk of it got killed by the winter. If I can not get the water this year I am going to take action against some one. for damages. as I have counted 30 sprinklers on a field at [redacted] s.22 when I had no water at all. This year it is the same the past 15 days we had no water so we turned the water from the lake and the last nights on the Creek are the one that got the water and my ditch is a mile and one half and it take all what I am allowed to get the never mind irrigating the land.

I hope you understand why we did fight for in the past I knew that would happen sooner or later

I am yours very truly

[redacted] s.22

0241429

323 Columbia Street,
Kamloops

August 1, 1972

s.22

Re: Robbins Creek

Dear Sir:

As a result of your telephoned complaint on or about Wednesday, 27 July, 1972 that there was improper diversion and use of water from Robbins Creek, an investigation of current use, together with streamflow measurements was made on the 27 and 28 July, 1972, and on 1 August, 1972.

During our investigation we noted the following:

(1) The base flow of Robbins Creek on 27 July, 1972 above the Little Disdero Lake diversion and excluding the water contributed to the base flow by the s.22 storage, was approximately 0.40 cubic feet per second or 180 Imperial gallons per minute. This quantity is insufficient to meet the requirements of prior licensees than yours, but held by s.22

(2) Storage water was being released from Little Disdero Lake but in quantity inadequate to satisfy your licence, Final Licence 4839 of 0.65 cubic foot per second (cfs) and Conditional Licence of 0.39 cfs s.22

(3) The quantity of water being diverted at your point of diversion was estimated to be about 1.0 cfs, or 0.35 cfs greater than allowed under your licence.

(4) It was noted that the control works for the release of water from Little Disdero Lake are to all intents inoperable and water releases can not be regulated with any accuracy or ease. In addition the spillway was poorly maintained in that it was choked with debris, and the sides had sluffed off, partly blocking it.

.....2

[redacted] August 1, 1972

Page 2 - Cont'd.

In view of the above facts, I have not, and will not at this time, require [redacted] to cease irrigating, particularly since his irrigation requirements are being met from storage water. I do, however, direct that the Little Diadora Lake spillway be cleared of debris, immediately, and that the control works of the dam sluice gate be repaired or replaced at the end of the 1972 irrigation season. The above directions would not be necessary if you were to carry out normal maintenance of the dam and its appurtenances.

Yours truly,

D.E. Cmuin, P.Eng.,
District Engineer.

DES/rn

c.c. [redacted]

Comptroller of Water Rights, Victoria, B. C.

Copy for our file 0116666

s.22

Ministry of Environment,
Province of British Columbia,
1259 Dalhousie Drive,
Kamloops, B.C.
V2C 5Z5

Attention: M. Edwards

Dear Sirs;

re. Your file 0322551 & 0193399

I am quite concerned about your statements in the first paragraph, as they are based on totally incorrect information.

The maintenance of the Robbins Creek diversion flume and ditch is carried out jointly by s.22 With the exception of this year, we have always had full beneficial use of the water. This year s.22 s.22 I was informed by of a water shortage problem by Harold Sample, hence corrective action was no longer useful.

In the fall of 1993, approximately $1,000 was spent on backhoe rental plus application of a ditch sealing compound. In the past, major disruptions to the ditch bottom by mechanical cleaning have not been productive, as major leakage problems have usually been the result. The major thrust of the ditch maintenance has been principally devoted to the clearing of debris (needles, etc.) from the creek bottom by use of a rake or shovel.

The flume, while not in good repair, is still capable of delivering water to the capacity of the ditch.

I would appreciate the opportunity of meeting with you to discuss the situation - of course, it would also be useful to have s.22 at the meeting.

Yours very truly,

s.22

cc s.22

ME

Province of British Columbia
Ministry of Environment, Lands and Parks

BC Environment

MEMORANDUM

TO: File

File: 0322550
0322551
0193399

Re: Robbins Creek Diversion to Buse Creek

On May 20, 1994, I inspected the POD, diversion ditch and flume authorized under F 42951, C 58897 and C 58899. The intake (POD "F" WR 3701) consists of an old wooden structure across Robbins Creek which ponds the water. A wooden flume rests on this structure and water is diverted along the flume for a distance of approximately 100 feet. The wooden flume is in poor condition and leaks badly. The flume was discharging an estimated 200 - 300 gpm into a ditch. The ditch was slow running and grassed-in. The flow in the ditch diminished until there was no flow in the ditch at a point approximately 3/4 mile from the intake and approximately 1/2 mile from where the ditch crosses the Campbell Range Road, within the NE 1/4 of Section 33, before connecting with Buse Creek.

A flow measurement was taken on Buse Creek at the Robbins Range Road crossing with-in NW 1/4 of Section 8, Tp. 19, Rg. 15, W6M. The flow in Buse Creek was 0.1 ft. deep x 1.0 ft. wide with a surface velocity of 1 ft./sec. Assuming average velocity is 80% of surface velocity, flow = 0.08 cfs (30 gpm).

As this flow would not satisfy the licensed demand on Buse Creek, the supplementary licenses on Robbins Creek could be exercised. However, the inefficient ditch system is not capable of conveying the water from Robbins Creek in a beneficial manner. In fact, the water being diverted from Robbins Creek is not being used beneficially. This state of affairs appears to have been occurring for many years.

M. Edwards

M. Edwards
Water Management Officer
Southern Interior Region

(see photos of intake flume)

ME/crb

Province of British Columbia
Ministry of Environment, Lands and Parks

BC Environment

MEMORANDUM

TO: File

October 5, 1994
File: 0322550
0322551
0193399

Re: Robbins Creek

On September 22, 1994, I met with s.22 regarding my letter dated June 14, 1994, and s.22 's letter dated June 24, 1994.

They informed me that although parts of the ditch suffer from losses when water is first passed along the ditch, once it is wetted down the ditch is a good delivery system. Over the last few years work has been done in several places to clean out the ditch, seal it with bentonite and increase the grade in an effort to improve the ditch efficiency. More work is planned where B.C. Hydro did some work where the ditch crosses under the transmission line.

s.22 said the ditch had been opened as usual in 1994 and around the middle of May (probably May 17) they had found the ditch had been shutoff with sandbags. They had re-opened the ditch and this would explain why the water had not reached the Campbell Range Road when I visited the site on May 20. On June 6 the ditch was closed off by the water bailiff.

s.22 said they would be doing more work on the ditch this year and it was agreed that I would attend the ditch with them in the spring of 1995 to establish what ditch losses were occurring.

M. Edwards

M. Edwards
Water Management Officer
Southern Interior Region

ME/crb

Province of
British Columbia
Ministry of
Environment,
Lands and Parks

BC Environment

Southern Interior Region
1259 Dalhousie Drive
Kamloops
British Columbia
V2C 5Z5
Telephone: (604) 371-6200

File: 0322550

June 14, 1994

s.22

Dear s.22

Re: Final Water Licence 42951 on Robbins Creek

A recent investigation of the licensing on Robbins Creek has found that the works authorized under the above licence are in poor condition and that seepage losses in the ditch are such that no beneficial use is being made of the water diverted from Robbins Creek. It appears that this situation has been occurring for several years.

It is the responsibility of the licensee to maintain and operate the works authorized under the license for the proper diversion and conveyance of the water and to ensure the water is used beneficially.

For your information please note the following extracts from the Water Act:

- "A person commits an offence who diverts water that he does not use beneficially".
- "The rights of every licensee under a license are subject to suspension for any time by the comptroller or a regional water manager, and every license and all rights under it are subject to cancellation in whole or in part by the comptroller or a regional water manager for failure by the licensee for 3 successive years to make beneficial use of the water for the purpose and in the manner authorized under the license".

Would you please provide this office with a proposal outlining how the present situation may be remedied.

Yours truly,

M. Edwards

M. Edwards
Water Management Officer
Southern Interior Region

ME/crb