

#867



YOUTH ASSOCIATION - BRANCH
OTTAWA
REPORT NO. 867

Department of the Interior, Canada.

WATER POWER BRANCH.

WATER RECORDS
appurtenant to
BRITISH COLUMBIA IND. RES.
REPORT No. 4.
KOOTENAY INDIAN AGENCY.
BY A.M. PHILLIPS.

R. G. SWAN
DISTRICT CHIEF ENGINEER

MEMORANDUM

Kootenay Agency Report No. 4.

Report No. 867.

Surveys Made by H. Phillips and
provincial engineer during
summer of 1920.

Report. Prepared by M. Balch in 1921.

*See # 5-5-5'
Apparently the same report
as 5-5-5'*

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tion of the Board of Investigation under the B.C. Water Act.

In compiling the lists a careful search was made of Provincial and Dominion Government records, also all available official publications, minutes of decisions of the various Indian Reserve Commissions and other documents bearing on the subject. In cases where the Indian records are dated subsequent to those of other water users on the same stream, details of such prior records are given to the extent of available information.

I N T R O D U C T I O N

The investigation of water rights appurtenant to Indian Reserves in the Province of British Columbia was undertaken by the Dominion Water Power Branch in September 1918, at the request of the Department of Indian Affairs.

All reserves directly affected lie within the "Dry Belt" and have been dealt with in the following order:-

- Report No. 1 --- Lytton Indian Agency
- " No. 2 --- Kamloops " "
- " No. 3 --- Okanagan " "
- " No. 4 --- Kootenay " "
- " No. 5 --- Williams Lake " "

Recorded Rights

The reports included in this series contain lists of water records, allotments, or privileges, granted prior to 1909, for irrigation or domestic purposes upon the various reserves and which are subject to the adjudication of the Board of Investigation under the B.C. Water Act.

In compiling the lists a careful search was made of Provincial and Dominion Government records, also all available official publications, minutes of decisions of the various Indian Reserve Commissions and other documents bearing on the subject. In cases where the Indian records are dated subsequent to those of other water users on the same stream, details of such prior records are given to the extent of available information.

Field Reports

Under the headings of "Areas", "Water Supply" "Works", etc., information obtained on the ground, either by survey or inspection, concerning the extent of irrigable areas, utilization of water, condition of works, suggested improvements for water supply systems, etc., is briefly given.

For the information of the Board of Investigation and as a basis on which the domestic requirements may be determined, the population and number of stock on each reserve is quoted from the 1916 report of the Indian reserve Commission.

Summaries

Appended to each report is a summary of recorded rights and estimated water requirements for each reserve. By referring to this part of the report the salient points may be observed at a glance.

For the purpose of comparing the estimated requirement with the amount of water recorded, the quantities recorded in miners inches have been converted to the equivalent in acre feet over a period of 120 days. For example:-
Report No. 3, Okanagan Agency -- Page 30. Okanagan Indian Reserve No. 1, Source ----- "Siwash Creek"
Amount recorded is 100 miners inches --- 666 acre feet in 120 days. Total area irrigable from recorded source (Provided sufficient water is available.) is 494.1 acres.
Accepting the duty of water at 3 acre feet per season for each acre of irrigable land the requirements are shown to be roughly 1485 acre feet as against 666 acre feet recorded. In other words the amount recorded would provide 1.35 acre feet per acre of irrigable land, in a season of 120 days.

It will thus be readily observed under the column headed "Amount recorded in acre feet per acre or irrigable land" whether the amount recorded exceeds the requirements of the land, or otherwise as the case may be.

Plans

The plans which form a part of each report have been prepared from surveys made by engineers of the Dominion Water Power Branch and Provincial Water Rights Branch either separately or jointly. In a few cases where earlier surveys (prior to 1918) by the Provincial Government show that the requirements of the land would warrant the confirmation of appurtenant records, such information has been incorporated without further survey.

The plans show irrigated areas "cross-hatched" and irrigable areas "single-hatched" also location of streams, points of diversion, ditches, etc., and wherever possible the general topography is indicated.

The work of investigation has been carried on in close co-operation with the Provincial Water Rights Branch and information respecting Water Rights and surveys has been exchanged to the mutual benefit of both governments.

KOOTENAY AGENCY

Water Rights and Field Report

I N D E X

<u>Band or Group</u>	<u>Pages</u>
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Summary of recorded rights and estimated water requirements	20

P L A N S

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<u>KOOTENAY</u>	
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No. 2 Tobacco Plains	2
No. 3 Columbia Lake	3
No. 4 Isadore's Ranch	4
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<u>LOWER KOOTENAY</u>	
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<u>SHUSWAP, KINBASKETS BAND</u>	
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Reserve Kootenay No.1 -- St.MARY'S (Area 17,425 acres)

Recorded Prov. W.R.No.54, Sept.23,1896, 400 ins. from St.Mary's River.
Prov. W.R.No.53, Sept.23,1896, 100 ins.from Cherry Cr

Prior Records of Other Users St. Mary's River --- None
Cherry Creek -- May 5, 1884 -- Lot 710 -- 383 ac.ft.-
C.L.2078 (10 subsequent records up to July 24,1911)

Areas Irrigated ----- None (see note under "Works")
Irrigable ----- 4570 acres

Works Ditch from St. Mary's River. Intake destroyed by high water 1919 (see photos) and ditch of no further use until repaired at very heavy expense.

Water Supply Irrigation -- St.Mary's River and Cherry Creek
Domestic ---- St.Mary's River and Cherry Creek, springs and sloughs.

Agricultural Improvements 91 houses, 62 barns, fences, cultivation, etc.

Remarks

As shown on accompanying plan, this reserve consists of a high bench bounded on east along Kootenay River, and south along St.Mary's River by a belt of bottom land. Most of this lower land requires irrigation and was supplied partially by a ditch from St.Mary's River until its destruction by high water in 1919. Cultivation is now being carried on without irrigation, and except for those parts near the junction of the two rivers, where some benefit is derived from sub-irrigation, there is small return for the labour involved. Portions of this sub-irrigated area now covered with light growth of poplar and willow should be cleared and cultivated, which would add very materially to the present scanty supply of winter feed.

In addition to the clearing of more bottom land bordering on the Kootenay River, the acute situation as regards winter feed might be relieved by four possible irrigation projects, all of which would be expensive and would require further investigation and surveys before construction is contemplated.

1. Restoration of Old Ditch from St.Mary's River

This would require such expensive head-works, the permanency of which would be problematical on account of the large volume, high velocity and nature of the banks of the St.Mary's River that it would be advisable to examine other projects carefully before proceeding with this.

2. On the upper bench, a branch ditch from the Peter Boyle ditch from Cherry Creek, approximate location shown on plan, would serve to relieve Francois' dry farm of 130 acres and probably other land adjacent to it which might be worth irrigating once the water was there. This ditch would involve the enlarging of Peter Boyle ditch in addition to its own length of about $1\frac{1}{2}$ miles.

3. Another project on the upper bench from Cherry Creek is a ditch 5 miles long with intake above the Lumber Railway's trestle above the Falls. This was an idea of Mr. Peter Woods, a large cattle rancher on Cherry Creek, who kindly accompanied us while we took levels along the route he had projected. This ditch would serve an area, outlined approximately on accompanying plan, of about 1600 acres including the Francois dry cultivation. The soil while light would be productive with a good supply of water, but before this project could be considered economically sound, further investigation and surveys would be required of both the cost of the ditch and the estimated returns of the land.

4. The low-lying land along St. Mary's River above the Mission Bridge, as well as that previously served by the old ditch, being under an elevation of 50 feet above normal level of the river during irrigation season, suggests an economical hydro-electrical pumping proposition. It is possible that a small plant installed on Joseph Creek, which empties into St. Mary's River from the South at the Indian School, would be worth investigation with a view to supplying light, water and power for the school, and pumping water for irrigation on the reserve just across the river. The irrigation season being also the high water period, makes pumping by electricity for low heads very economical, where power is available without too heavy initial expense.

Some relief is urgently needed on this reserve for the irrigation situation and whatever project is found to be the most economical upon further investigation, the cost of construction of any of them would more than be compensated for by the Indians cutting the valuable pine timber which is now matured on this reserve.

Population: 200

Stock: Horses 460 Cattle 460

Plan

No. 1

Photos

Nos. 24, 25 & 26.

<u>Reserve</u>	Kootenay No. 2 -- Tobacco Plains (Area 10,557.03 acs)
<u>Recorded Rights</u>	<p>I.R.C. Allott, July 18, 1884 -- All water flowing through this reserve is allotted to the use of the Indians.</p> <p>Prov. W.R. No.55, Sept. 23, 1896 -- 200 ins. from Willie Phillips creek</p> <p>Prov. W.R. No.49, Sept.23, 1896 -- 200 ins. from Reserve Cr.</p> <p>Prov. W.R. No.49, Sept.23, 1896 -- 100 ins. from Semo Cr.</p> <p>Prov. W.R. No.70, Oct. 9, 1900 -- 100 ins. from Phillips "</p> <p>Prov. W.R. No.69, Oct. 9, 1900 -- 6 ins. from spring</p>
<u>Prior Records of Other Users</u>	<p>Willie Phillips Creek ----- None</p> <p>Reserve Creek ----- None</p> <p>Semo Creek ----- None</p> <p>Phillips Creek -- Aug. 29, 1893 -- Lots 289 & 487 -- 455 ac.ft. C.L. 372.</p> <p>(6 subsequent records up to 1907)</p> <p>Springs (Gordon) -- Oct.12, 1899 -- Lot 289,30 ac.ft.F.L. 3131.</p> <p>Dec. 2, 1899 -- Lot 289,207 " C.L. 670.</p> <p>(NOTE: Prior records of other users as listed are prior to Prov. Records appurtenant to this reserve, but are subsequent to the I.R.C. Allotment of July 18, 1884.)</p>
<u>Areas</u>	<p>Irrigated ----- 230 acres</p> <p>Additional Irrigable --- 758 acres</p> <p>Total Irrigable ----- 988 acres</p>
<u>Water Supply</u>	Obtained from Willie Phillips Creek, Semo Creek, Reserve Creek, Phillips Creek and Springs and used for irrigation and domestic purposes.
<u>Works</u>	Ditches excavated or built up with logs and earth, the latter from Willie Phillips Creek, built at considerable expense some years ago are in need of repair.
<u>Agricultural Improvements</u>	29 dwellings, 33 outbuildings, fences, corrals, etc. of a better type than the ordinary.
<u>Reclamation</u>	About 280 acres included in irrigable area will require to be cleared.
<u>Remarks</u>	<p>This reserve is well conditioned for cattle raising, including sufficient good land to provide winter feed for many more head of stock than is now kept, owing to lack of irrigation facilities. The irrigation improvements to be considered are a long flume from Willie Phillips Creek to the high ground at west side of reserve shown on plan, along which a ditch running south would irrigate all irrigable land not irrigable from Reserve or Semo Creeks. The large block of irrigable land shown at south end is heavily timbered with Fir and Pine and would if logged off by the Indians themselves, be profitable to them in wages and additional agricultural land, and would liquidate any capital investment necessary for the improvements to irrigation system, as well as salvaging the valuable matured timber now in yearly</p>

Remarks (Continued)

danger of destruction by fire.

The records on Semo and Reserve Creeks can be fully utilized by additional clearing of land at East side of reserve shown on plan, to be served by these streams. Semo Creek is a small stream about 500 feet north of Reserve Creek, comes out in a gushing stream from the side-hill about 1000 feet east of public road and disappears in ground about the same distance west of road on reserve land.

The present ditch from Phillips Creek serving Chief Paul's land has its intake much too low to be of any great benefit. Two ditches from this creek, one on each side of the land, would irrigate all of Chief Paul's land along with the water now obtained from his spring on mountain side, back of his house, shown on plan.

The proposed irrigation works would serve to make really productive land of several acres of dry farming shown on plan and might induce some of the Indians who have expended much labour in dry cultivation on isolated high benches impossible to irrigate, to direct their efforts more profitably on more productive lower land, once it is cleared and facilities provided for irrigation.

The plan shows the south boundary of land which it would be economical to consider for irrigation for the immediate future. The remainder would be used for summer range for many more head of cattle and with the evident disposition of this land of Indians to make good use of their land there is every reason to expect they would do proportionately better with the improved facilities recommended.

Population

55

Stock

Horses 150 Cattle 140

Plan

No. 2.

Photos

Nos. 14, 15 & 16.

KOOTENAY AGENCY.

RESERVE	Area	Irrigat. Acres	Irrigable Acres	Total Irrigable	Estimated Wa- ter Require- ments, Ac. Ft.	Amt. recorded in ac. ft. per acre o. Irrigable land i: 120 days
<u>KOOTENAY.</u>						
No. 1, St. Mary's	17,425	---	2940	2940	@ 3--8820	0.91
			1630	1630	@ 3--4890	0.41
No. 2, Tobacco Plains	10,557					
		177.5	757.9	935.4	@ 3--2806	3.56
		53	---	53	@ 3--159	13.3
No. 3, Columbia Lake	8,359.8					
		100	171	271	@ 2½--677	2.46
		45	228	273	@ 2½--682	4.88
		33	327	360	@ 2½--900	3.7
		149	379	528	@ 2½--1320	2.53
		25	257	282	@ 2½--705	2.36
		50	---	50	@ 2½--125	3.34
No. 4 Isidore's	680	---	600	600	@ 3--1800	3.33
No. 5, Cassimayooks	160		No recorded Rights			
No. 6, Bummers Flat	190		No Recorded Rights			
<u>LOWER KOOTENAY</u>						
No. 1, Creston	1831.5	---	9.9	9.9	@ 2½--25	2.5
Shuswap No. 1	2683.9					
		514	651	1165	@ 3--3495	0.57
		256	239	495	@ 3--1485	1.34

Quantity miners inches	Equivalent ac.ft. 120 days.	Recorded Rights		Remarks
		Stream	Date	
				<u>Stream Flow Data</u>
	400	St.Mary's R.	Sept.23,1896	Prov.W.R.No.54/568 c.f.s.Oct 1913
	100	Cherry Ck.	Sept.23,1896	" " No.53/ 19 c.f.s.Low est (about)
All water		Acam Spring	May 17,1920	Riparian Claim
All water		Flowing Thro' reserve	Jly. 18,1884	I.R.C.Allotment.
200	1333	Willie Phillips Ck.	Sept.23,1896	Prov.W.R.No.55/194 c.f.s.Jly 1912
100	666	Semo Creek	Sept.23,1896	" " No.49/ Unknown
200	1333	Reserve Creek	Sept.23,1896	" " No.49/4.8 c.f.s.Sep. 1912
100	666	Phillips "	Oct. 9,1900	" " No.70/24.62 c.f.s. Mean of 4 measurements Aug.to Nov. 1912.
6	40	Springs	Oct. 9,1900	" " No.69/0.25830 c.f.s. Sept.1912.
All water		Thro' reserve	Aug. 9,1884	I.R.C.allotment
100	666	Windermer Ck.	Sept.23,1896	Prov.W.R.No.52/
200	1333	Sophy Creek	Sept.23,1896	" " No.48/
200	1333	Sam's Creek	Sept.23,1896	" " No.48/
200	1333	Tatley Creek	Sept.23,1896	" " No.48/
100	666	Lytle Creek	May 14,1920	Application -(C.L.5189 for (50 ac.ft.issued
25	167	Albin Spring	May 14,1920	Riparian Claim (June 4,1920)
300	1999	Cassimayook	Feb. 14,1889	Prov.W.R.No.11
---	25	China Cup Ck.	June 26,1919	C.L.5034
The water		Shuswap Ck.	Aug. 14,1884	I.R.C.Allotment
100	666	Aylmer Creek	Aug. 14,1884	" (Aylmer & Stoddard - same stream)
100	666	Shuswap Ck.	Sept.23,1896	Prov.W.R.No.50/15 c.f.s. mean of two measurements.
100	666	Stoddart Ck.	Sept.23,1896	Prov.W.R.No.51/3.6 c.f.s. mean of three measurements.

Reserve Kootenay No. 3 -- LOWER COLUMBIA LAKE (Area 8,359.81 aas)

Recorded Rights I.R.C. Allott, Aug. 9, 1884 -- "All water flowing through this reservation is assigned to the use of the Indians"

Prov. W.R.No. 52, Sept. 23, 1896 -- 100 ins. from Windermere Cr.
 Prev. W.R.No. 48, Sept. 23, 1896 -- 200 ins. from Sophy Creek
 Prev. W.R.No. 48, Sept. 23, 1896 -- 200 ins. from Sam's Creek
 Prev. W.R.No. 48, Sept. 23, 1896 -- 200 ins. from Tatley Creek
 C.L. 5189, June 4, 1920 -- 50 ac. ft. from Lytle Creek
 Riparian Claim May 14, 1920, for 25 ins. from Athan (or Albin) Springs

<u>Prior records of Other users</u>	<u>Date</u>	<u>Land</u>	<u>Quantity</u>	<u>Conditional Licence</u>
	Apr. 9, 1883	Lot 19	160 ac. ft.	533
	Sept. 1, 1883	Lot 8	966 ac. ft.	1995
	Oct. 31, 1883	Lot 108	640 ac. ft.	1321

(I.R.C. Allottment -- Aug. 9, 1884)

May 15, 1886	Lot 1093	640 ac. ft.	1322
Sept. 12, 1890	Lot 218	264 ac. ft.	1325
Mch. 4, 1895	Lot 2561	320 ac. ft.	1323
Mch. 23, 1896	Lot 775	106 ac. ft.	1324
June 10, 1896	Lot 20 (pt.)	548 ac. ft.	568

(14 subsequent records)

<u>Sophy Creek</u>	-----	None
<u>Sam's Creek</u>	-----	None
<u>Tatley</u>	-----	None

Areas

Irrigated	-----	402 acres
Additional Irrigable	-----	1362 acres
Total Irrigable	-----	1764 acres

Water Supply

Irrigation	-----	Taken from creeks above mentioned
Domestic	-----	Taken from sources above mentioned
		for 83 persons, 250 head of cattle and 240 horses

Works

Flumes and ditches from Windermere Creek; ditch from Sophy Creek; flume and ditches from Sam's Creek; ditches from Tatley Creek; flumes and ditches from Lytle Creek and ditches from Albin Spring. (The flume intake on Windermere Creek is in urgent need of repair) See photos.

Agricultural Improvements 21 dwellings, 37 outbuildings, fences, cultivation, etc.

Remarks

The cultivation on this reserve generally is very well done, the Indians showing a disposition to farm their holdings with a view to raising cereal crops where possible. Where irrigation is not now available some good pieces of land have been cleared and cultivated and are shown on plan as "Dry Farm". Storage works would seem advisable on nearly all the creeks, and further surveys to investigate these possibilities will be necessary.

Plan

No. 3.

Photos

Nos. 2 to 9.

Reserve Kootenay No. 4 -- ISIDORE'S RANCH (Area 680 acres)

Recorded Rights Prov. W.R. No. 11, Feb. 14, 1889 -- 300 ins. to be taken from the Spring or Creek that crosses the old Boundary Commission trail on the west side of the Kootenay River, ten miles south of Galbraiths Ferry (Cassimayooks Creek)

Prior Records of
Other Users None

Areas Irrigated ----- None
Total Irrigable ----- 600 acres

(200 acres could be irrigated from Cassimayooks Creek, without storage -- Hick's report Oct. 20, 1912.)

Water Supply Irrigation ----- None
Domestic ----- Kootenay River

Agricultural
Improvements Houses, barns, etc.

Remarks This reserve shows good results from cultivation without irrigation, though improved cultivation would result from restoring and utilizing old ditch, shown on plan, from Cassimayooks Creek

Plan No. 4.

Reserve Kootenay No. 5 -- Cassimayooks (Area 160 acs)

Area
Cultivated 45 acres

Works Drainage ditch

Water Supply Domestic ----- From Swamp Creek

Agricultural
Improvements House, barn, corral, fences, cultivation, etc.

Remarks

This reserve is the farm of Indian Alex. Miuke and his family. Plan shows that it is mostly in swamp, also the works necessary to drain same. It has valuable pine timber which would well repay the expense of cutting, as well as the small cost of the proposed drainage works, if arrangements were made with a neighbour, Mr. Arnold, to allow drainage water to run into a basin on his land, affording a storage reservoir for his present irrigation ditch. The intake of this ditch is now at this basin (see plan) and obtains its water supply from Miuke's springs. Further survey for small dam and ditch would be necessary.

Plan

No. 5.

Reserve Kootenay No. 6 ---- BUMMERS' FLAT (Area 190 acres)

Remarks Used as community hay meadow. Entirely flooded at high water. Benefit would be derived by a little work each year digging or cleaning out drainage ditches to permit flood-water, left in pools after freshet has subsided, to be drained off earlier, thus permitting longer hay growing season.

Plan No. 6.

Photos Nos. 19 & 20.

<u>Reserve</u>	Lower Kootenay No. 1 -- CRESTON (Area 1831.5 acres)
<u>Recorded Rights</u>	C.L. 5034, June 26, 1919, 25 ac.ft. from China Cup Creek
<u>Remarks</u>	<p>The most of this reserve is flooded by Kootenay Lake at high water, and the bench used by Indians and on which the village is built has no irrigation. The climate here is such that there is no great need for irrigation, though in dry seasons it would be a benefit. There are 229 horses, 375 cattle, 23 dwellings and 31 outbuildings. In 1918 the following crops raised:- 4 acres of oats, 15 acres potatoes, 2 acres roots, 145 tons of hay cultivated in addition to slough hay cut on flooded area after freshet. The population is 156, rather large for the small area at their disposal apart from the flood flats.</p>
<u>Plan</u>	No. 7.
<u>Photos</u>	Nos. 21 & 22.

Reserve Shuswap, Kinbasket's Band -- SHUSWAP (Area 2683.91 ac)

Recorded Rights

I.R.C. Allott, Aug. 14, 1884 -- "The water of Shuswap Creek (which flows through this reserve) and 100 inches of water from Aylmer Creek are allotted for use on this reserve".

Prov. W.R. No. 50, Sept. 23, 1896 -- 100 ins. out of Shuswap Creek.

Prov. W.R. No. 51, Sept. 23, 1896 -- 100 ins. out of Stoddart Creek.

Records of Other Users

Shuswap Creek

<u>Date</u>	<u>Land</u>	<u>Quantity</u>	<u>Conditional Licence</u>
Sept. 12, 1890	Lot 9561	657 ac.ft.	532
May 6, 1892	Lot 493	458 "	--
Aug. 29, 1893	Lot 9562	320 "	2339
Jan. 31, 1896	Lot 5343	300 "	2340
June 25, 1896	Lot 2846	---	--
July 10, 1896	Lot 9000	258 ac.ft.	2343
Aug. 5, 1896	Lot 4347	374 "	2341

(4 records subsequent to Indian Records)

Stoddart Creek

June 20, 1890	Lot 288	50 ins.	
Apr. 27, 1896	Lot 5353	200 ac.ft.	2338

(3 records subsequent to Indian Records)

Areas

Irrigated ----- 770 acres
Additional Irrigable ----- 890 acres

Total Irrigable ----- 1660 acres

Water Supply

Irrigation --- Shuswap Creek and Stoddart Creek
Domestic ----- From irrigation ditches for 68 persons
345 cattle and 150 horses

Works

An unnecessary number of intakes and ditches from Shuswap Creek in fair condition. Ditches and flumes from Stoddart Creek.

Agricultural Improvements

28 dwellings, 26 barns, fences, etc. and cultivation.

Remarks

Soil is light with gravel sub-soil and not considered good land, though would be more productive with better irrigation facilities. The best land is being well cultivated, producing oats, hay and vegetables. A more economical system of ditches and flumes from Shuswap Creek should be installed, there being insufficient water to irrigate all the land now under cultivation throughout irrigation season, resulting in burning up some of crops towards end of season.

Plan

No. 8.

Photo

No. 13.