ANNUAL FISH PASSAGE REPORT

COLUMBIA RIVER PROJECTS

BONNEVILLE ..... JOHN DAY
THE DALLES ..... McNARY

SNAKE RIVER PROJECTS

ICE HARBOR
LOWER MONUMENTAL
LITTLE GOOSE

OREGON AND WASHINGTON

1973

396

NORTH PACIFIC DIVISION
Corps of Engineers
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ANNUAL FISH PASSAGE REPORT
COLUMBIA AND SNAKE RIVER PROJECTS
CALENDAR YEAR 1973

BONNEVILLE DAM

Salmon Passage

1. Totals of 670,101 salmonids, and 519,207 shad were counted at Bonneville Dam in 1973. The most salmon to be recorded in one day were 19,981 on 8 September; 15,858 of these were chinook and 21,185 steelhead.

2. A brief summary of salmonid counts is shown below. Comparative figures for other main stem projects are shown in Table 1.

Species	1973 Count	36-Year Average
Spring Run Chinook	142,148	93,277
Summer Run Chinook	45,360	63,355
Fall Run Chinook	211,127	198,679
Chinook (Jacks)	79,799	45,137
Sockeye	58,979	96,035
Chum	43	1,057
Pink	12	25
Steelhead	157,823	143,711
Coho (Total)	54,609	24,508
Coho (Jacks)	28,760	29,192*

*8-year Average

Bonneville Dam

Miscellaneous Other Species

3. Miscellaneous species other than shad were disregarded in the 1973 fish counts. The maximum daily total of shad at Bonneville was 46,892 on 12 June.

Sturgeon

4. No sturgeon were observed at the Bonneville counting stations in 1973.

Bonneville 1973 Fish Counting Schedule

1 January - 14 March	No counting. Gates open at all times.
15 March - 31 March	Two counters on duty 8:00 AM - 4:00 PM Standard Time. Gates open and 1.26 factor applied to actual counts to compensate for night time and rest periods.
1 April - 31 October	Two counters on duty for two 9 hour shifts 4:00 AM - 10:00 PM Standard Time. Gates open at all times during counting season. A 1.2 factor was applied to counts.
1 November - 15 November	Two counters on duty 8:00 AM - 4:00 PM Gates open at all times, and 1.26 factor applied to actual counts.
16 November - 31 December	No counting. Gates open at all times.

Fishway 1973 In-Service Periods

Bradford Island Ladder	10 March through 31 December. "A" Branch 10 March through 31 December. "B" Branch 10 March through 15 October.
Washington Ladder	1 January through 29 October.

Fishway Activities

5. The Contractor completed the first phase of structure to house the new fish counting and viewing facility, cut one additional orifice in each weir and replaced the wooden weir crests with concrete in Bradford Island ladder. The second phase of construction of the fish viewing and visitors building started in the fall of 1973.

6. "B" Branch of Bradford Island ladder and all fingerling bypasses were shut down to conserve water during the energy crises on 15 October 1973.

7. Washington shore ladder was unwatered for major modification by contract on 29 October 1973. Existing weirs and exit control section are being modified so that they will be similar to Bradford Island. An underwater counting station is being installed in the ladder above weir 68.

8. The wooden gratings covering the diffusion chambers in Washington Shore fish ladder and "A" and "B" Branches of Bradford Island fish ladders were replaced with metal gratings.

9. The fish counting time was extended two hours in the evening every day except Tuesday. On Tuesday, three 8-hour shifts were conducted and fish were counted through the night. This was done during the months of April through October at the request of the Fishery Agencies.

THE DALLES DAM

Fish Passage

10. The Dalles Dam fish counters recorded 444,483 salmonids and 781,020 shad in 1973. The maximum number of salmon in any one day was 13,672 on 9 September; of these 10,512 were chinook, 2,431 steelhead, and 729 coho.

11. Miscellaneous species except the 781,020 shad were disregarded in the fish counts of 1973. The greatest number of shad in one day occurred on 6 June when 40,725 were tabulated.

The Dalles Dam 1973 Fish Counting Schedule

1 January - 31 March	No counting, gates open.
1 April - 31 October	Two counters on duty 18 hours daily. Gates remained open at all times. A 1.2 factor was applied.
1 November - 31 December	No counting. Gates open.

Fishway 1973 In-Service Periods

North Ladder	1 January - 31 October
East Ladder	1 January - 5 March 9 March - 31 December

Fishway Activities

12. Entrance weir settings were adjusted to comply with operating criteria established by a committee of representatives of the fishery agencies. This employs only two slots at the east and west powerhouse entrances and one slot at the North and South spillway entrances, provides greater depth of water flow at each slot, and maintains greater head on the powerhouse collection system orifice entry ports.

The Dalles Dam

13. Contractors began work in May 1970 leading to completion of powerhouse and installation of Units 15 through 22. This work continued through 1971 and 1972. The last Unit No. 22 was put on the line 16 November 1973.

14. Six inch diameter holes were drilled through the concrete wall between the intake gate slot and the ice trash sluiceway of the new units 15 through 22 to provide an avenue of escape for downstream migrant fingerling. This was done previously and had proved successful in Units 1 through 14. The ice-trash sluiceway was extended 10 feet to provide additional safety for the fingerling.

15. Fish counting time was extended two hours in the evening every day except Tuesday. On Tuesdays three 8-hour shifts were conducted and fish were counted throughout the night. This was done during the months of April through October at the request of the Fishery Agencies.

16. North fish ladder was shut down to conserve water 1 November through 31 December.

JOHN DAY DAM

Fish Passage

17. Fish counted at John Day Dam in 1973 included 429,044 salmonids and 419,876 shad. The greatest tabulation of salmonids for one day was 13,431 on 12 September, and comprised 9,500 chinook, 3,148 steelhead and 783 coho. The maximum daily count of shad was 36,317 on 22 June; other miscellaneous species were not counted in 1973.

John Day Dam 1973 Fish Counting Schedule

1 January - 1 April	No counting. Gates open.
1 April - 31 October	Four counters on duty, counting 18 hours, 4:00 AM - 10:00 PM. Gates were open at all times. A 1.2 factor was applied.
1 November - 31 December	No counting. Gates open.

Fishway 1973 In-Service Periods

North Ladder	1 January - 8 November
South Ladder	Entire year.

Fishway Activities

18. The North shore fish ladder was shut down to conserve water 1 November through 31 December.

19. The low weir along the downstream side of the make up water diffusion chamber was removed in order to see whether it would reduce the milling and drop back through the counting station by steelhead which has been observed in the past. No appreciable effect was noticed by the fish counters.

20. Fish counting time was extended two hours in the evening every day except Tuesday. On Tuesdays, three 8-hour shifts were conducted and fish were counted throughout the night. This was done during the months of April through October at the request of the Fishery Agencies.

21. The powerhouse fish collection system study was expanded to include the three main entrances in addition to the 19 orifices which were tested in 1972. The main entrances were monitored by using special frames which held sufficient tunnels to cover the entire entrance. The SE-1 (south powerhouse) entrance frames contained 14 tunnels and the NE-1 and 2 (north powerhouse) entrance frames contained 9 tunnels each. One tunnel was required for each of the 19 orifices. Additional electronic counters were also obtained so that there was one for each detection tunnel. The 19 orifices and SE-1 entrance were tested from April through October whereas NE-1 and 2 were only tested during the fall fish run from August through October. The results of these tests will be published in a separate report.

McNARY DAM

Fish Passage

22. A Total of 309.145 salmonids were counted over McNary Dam in 1973. The greatest number of salmonids for any day was 10,179 on 13 September; of this number 6,570 were chinook, 631 were coho, 8 sockeye and 2,970 were steelhead.

A total of 318,377 shad were counted in 1973. The greatest number of shad counted in one day was 20,980 on 24 June.

McNary Fish Counting Schedule

1 January - 31 March	Gates open. No counting.
1 April - 31 July	Two 9-hour shifts full count 0400-2200 hours Standard Time daily. Gates were open at all times.
1 August - 31 October	Two 8 hour shifts full count 0400-2000 hours Standard Time daily. Gates were left open at all times.
1 November - 31 December	Gates open. No counting.

Fishway In-Service Periods

Washington Ladder	1 January - 1 November
Oregon Ladder	1 April - 31 December

Fishway Activities

23. The two 9-hour counting shifts per day plus three 8-hour shifts (started in July 1972) continued on through July 31 when the

counters returned to the normal two 8-hour shifts per day counting.

24. The Oregon ladder was out of service from 1 January through 31 March for installation of a new submerged type counting station. The Washington ladder was out of service from 1 November through 31 December for construction of new fish counting station.

ICE HARBOR

Fish Passage

25. A total of 122,812 salmonids were counted over Ice Harbor Dam in 1973. The greatest number of salmonids in any one day was 4,843 on 29 April 1973; of this number 4,821 were chinook and 22 steelhead. A total of 11,412 shad were counted. No other miscellaneous fish were counted.

Ice Harbor Fish Counting Schedule

1 January - 30 March	Gates open. No counting.
1 April - 31 July	Two 9-hour shifts full count 0400-2200 hours Standard Time daily. Gates were left open at all times.
1 August - 31 October	Two 8-hour shifts full count 0400 - 2000 hours Standard Time daily. Gates were left open at all times.
1 November - 31 December	Gates open. No counting.

Fishway In-Service Periods

North Ladder	1 January - 31 October
South Ladder	1 January - 31 December

Fishway Activities

26. The two 9-hour counting shifts per day plus three 8-hour shifts (started 1 July 1972) continued on through 31 July when the counters resumed the normal two 8-hour shifts per day counting.

27. The North shore ladder was shut down from 1 November through 31 December to conserve water during the energy shortage.

LOWER MONUMENTAL

Fish Passage

28. A total of 121,626 salmonids and 4,036 shad were counted over Lower Monumental Dam in 1973. The greatest number of salmonids in any one day was 5,124 on 6 May 1973; of this number there were 5,075 chinook and 49 steelhead. Miscellaneous species, other than shad, were not counted during the 1973 season.

Lower Monumental Fish Counting Schedule

1 January - 31 March	Gates open - no counting
1 April - 31 July	Two 9-hour shifts full count 0400 - 2200 Standard Time daily. Gates were left open at all times.
1 August - 31 October	Two 8-hour shifts full count 0400 - 2000 Standard Time daily. The gates were left open at all times.
1 November - 31 December	Gates open - no counting.

Fishway 1973 In-Service Periods

North Ladder	1 January - 31 December
South Ladder	1 April - 31 October

Fishway Activities

29. The two 9-hour counting shifts per day, except Tuesday when three 8-hour shifts were conducted, continued on through 31 July when the counters resumed the normal two 8-hour shifts per day counting. The extra counting was started 1 July 1972 at the request of the fishery agencies.

30. Walla Walla District started experimenting with video camera to count fish in North shore counting station which has a submerged counting window in 1972. Their experiments were continued through 1973 using time-lapse video tape recording and closed circuit remote video viewing. As a result of these experiments they propose to adopt closed circuit color television monitoring as a counting aid in 1974.

31. The South shore counting station was modified to a submerged window type during the winter months 1972-1973 and placed in operation 1 April 1973.

32. The South shore ladder was shut down from 1 November through 31 December to conserve water during the energy shortage.

LITTLE GOOSE

Fish Passage

33. A total of 110,774 salmonids were counted over Little Goose Dam in 1973. The greatest number of salmonids on any one day was 3.482 on 1 May 1973; of this number, 3,415 were chinook and 67 were steelhead. 27 shad were counted this year.

Little Goose Fish Counting Schedule

1 January - 31 March	Single-shift count 0800 - 1600 Standard Time.
1 April - 31 July	Two 9-hour shifts full count 0400 - 2200 hours Standard Time daily. Gates were left open at all times.
1 August - 31 October	Two 8-hour shifts full count 0400 - 2000 hours Standard Time daily. Gates were left open at all times.
1 November - 31 December	Single-shift count 0800 - 1600 hours Standard Time.

Fishway In-Service Periods

34. National Marine Fisheries Service continued trapping, marking and hauling migrant fingerling to the release site below Bonneville Dam.

Fishway Activities

35. The two 9-hour counting shift per day, except Tuesdays when three 8-hour shifts were conducted, continued on through 31 July when the counters resumed the normal two 8-hour shifts per day counting. The extra counting was started 15 June 1972 at the request of the Fishery Agencies.

TABLE 1
FISH ESCAPEMENT AT MAIN STEM DAMS
COLUMBIA & SNAKE RIVERS 1968 TO 1972

SPECIES	BONNEVILLE	THE DALLES	JOHN DAY	McNARY	ICE HARBOR	LOWER MONUMENTAL	LITTLE GOOSE	PRIEST RAPIDS	ROCKY REACH
1969									
CHINOOK*	507,543	314,258	276,051	213,407	100,514	86,700		40,696	21,034
Spring*	173,562	100,482	81,724	70,079	52,090	48,637		8,872	4,400
Summer*	102,153	61,978	64,732	63,953	30,917	30,455		20,329	12,996
Fall*	231,828	151,798	129,395	79,375	17,507	7,608		11,495	3,638
Jacks	96,295	96,244	93,928	39,697	10,023	12,268		14,028	8,532
STEELHEAD	140,782	112,329	86,348	76,681	63,889	71,434		6,647	1,974
SOCKEYE	59,636	37,226	39,847	29,787	745	1,127		39,131	20,374
COHO*	49,378	17,054	13,589	53,716	5,316	6,466		1,344	179
Adults	24,162	5,836	4,558	6,751	2,276	3,912		661	
Jacks	25,216	11,218	9,031	46,965	3,040	2,554		683	
SHAD	317,358	305,888	174,523	89,402	442	545		3,440	
LAMPREY	379,509	167,252	52,314	3,069	5,548	8,271			17,208
1970									
CHINOOK*	384,780	261,457	222,506	168,892	77,698	75,310	72,971	43,917	21,953
Spring*	110,976	83,549	72,555	63,982	47,931	45,613	43,572	6,078	4,288
Summer*	64,902	48,115	43,093	43,356	19,382	22,413	23,174	17,955	9,215
Fall*	208,902	129,793	106,858	61,554	10,385	7,284	6,225	19,884	8,450
Jacks	70,748	85,471	74,090	30,842	7,396	10,933	16,567	18,675	10,940
STEELHEAD	113,510	99,187	82,440	69,759	53,870	62,167	59,640	5,558	2,543
SOCKEYE	70,762	77,678	78,133	59,636	797	240	163	77,523	56,251
COHO*	80,116	23,219	19,543	36,399	3,636	2,972	2,480	4,368	207
Adults	54,868	11,892	10,276	8,275	1,783	1,649	1,080	1,797	-
Jacks	25,248	11,327	9,267	28,124	1,853	1,323	1,400	2,571	-
SHAD	329,276	308,670	207,530	108,350	395	812	-	6,770	-
1971									
CHINOOK*	405,702	250,528	193,881	171,448	70,248	68,885	61,402	36,163	15,263
Spring*	125,517	73,655	56,625	42,601	32,638	30,887	28,432	6,122	1,586
Summer*	77,911	51,847	50,030	59,129	26,606	27,795	26,830	17,696	9,217
Fall*	202,274	125,026	87,226	69,718	11,004	10,203	6,140	12,345	4,460
Jacks	76,962	75,329	61,380	37,453	8,556	13,320	13,543	7,202	6,628
STEELHEAD	193,966	131,348	115,977	109,630	67,029	70,114	70,013	11,103	5,330
SOCKEYE	87,447	76,103	72,232	52,867	532	808	891	73,841	49,842
COHO*	75,989	29,061	40,830	39,358	2,969	2,171	2,701	7,743	224
Adults	53,817	17,887	23,245	9,919	1,628	1,413	1,738	6,902	224
Jacks	22,172	11,174	17,585	29,439	1,341	758	963	841	-
SHAD	189,597	187,549	104,034	41,845	134	2	0	1,458	0
1972									
Chinook*	394,456	268,628	225,631	168,821	82,632	72,220	64,211	32,639	15,323
Spring*	186,140	103,197	71,569	69,023	50,350	44,322	41,400	8,775	4,683
Summer*	70,830	48,660	44,542	50,491	22,846	22,706	20,468	16,760	5,836
Fall*	137,486	116,861	109,520	49,307	9,436	5,192	2,343	7,104	4,801
Jacks	58,419	81,668	82,646	22,080	6,539	6,004	5,795	6,185	5,130
STEELHEAD	185,886	135,303	141,628	93,820	63,593	66,857	63,638	6,437	3,131
SOCKEYE	56,323	44,671	51,793	26,422	363	415	408	44,957	34,444
COHO*	65,932	16,562	17,533	45,635	2,522	733	799	5,293	4,833
Adults	34,216	6,290	7,312	7,570	1,402	494	520	2,937	4,833
Jacks	31,716	10,272	10,221	38,065	1,120	239	279	2,356	-
SHAD	214,725	273,357	142,805	54,176	1,268	73	0	2,370	0
1973									
Chinook*	398,635	280,945	249,492	184,112	81,821	80,537	70,605	34,418	18,510
Spring*	142,148	111,088	96,710	79,047	60,639	62,717	55,429	10,062	4,001
Summer*	45,360	38,774	34,206	31,812	12,829	12,403	11,987	14,273	8,129
Fall*	211,127	131,083	118,576	73,253	8,353	5,437	3,189	10,083	6,380
Jacks	79,799	72,088	73,687	35,565	4,689	5,461	4,439	8,369	8,115
STEELHEAD	157,823	100,082	101,440	64,620	38,311	39,530	38,820	7,006	3,526
SOCKEYE	38,979	52,303	64,744	42,731	233	206	192	54,480	48,769
COHO*	54,609	11,132	13,359	17,682	2,443	1,333	1,157	1,576	636
Adults	25,849	5,896	9,132	7,733	1,260	862	773	1,366	636
Jacks	28,760	5,256	4,227	9,949	1,183	471	384	210	0
SHAD	519,207	781,020	419,876	318,377	11,412	4,036	27	12,594	0
Assumed Dates for Chinook Runs									
Spring	1 Mar - 31 May	1 Apr ** 3 June	1 Apr 5 June	1 Apr - 8 June	1 Apr ** 11 June	1 Apr ** 13 June	1 Jan ** 15 June	24 Apr ** 13 June	1 May** 19 June
Summer	1 June - 31 July	4 June - 3 Aug	6 June - 5 Aug	9 June - 8 Aug	12 June 11 Aug	14 June - 13 Aug	16 June 15 Aug	14 June 13 Aug	20 June - 19 Aug
Fall	1 Aug - 15 Nov **	4 Aug 21 Oct **	6 Aug - 31 Oct **	9 Aug 31 Oct	12 Aug 31 Oct **	14 Aug 31 Oct **	16 Aug 31 Dec	14 Aug - 31 Oct**	20 Aug - 15 Nov

* Includes Jack counts Fish classified as jacks are those under 22 inches in length

** 1973 only Beginning and termination of counting for previous years may vary slightly.

TABLE I

TABLE 2

YEARLY TOTALS OF SALMONID FISH COUNTED OVER BONNEVILLE DAM

1938 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Chum	Pink	Total Salmonid
1938	271,799	107,003	75,040	15,185	2,117		471,144
1939	286,189	122,032	73,382	14,383	1,168		497,154
1940	391,587	185,174	148,807	11,917	1,729		739,214
1941	461,443	118,089	65,741	17,911	5,269	4	668,457
1942	401,942	151,800	55,464	12,402	1,865	11	623,484
1943	313,123	92,133	39,845	2,547	788		448,436
1944	240,764	100,518	15,072	4,207	954	1	361,516
1945	297,478	120,133	9,501	790	728	1	428,631
1946	446,052	142,807	74,376	3,898	1,178	2	668,313
1947	480,377	135,444	171,139	11,174	199	3	798,336
1948	419,555	139,062	131,541	4,081	3,636	2	697,877
1949	277,697	119,285	51,444	1,004	2,028	6	451,464
1950	357,375	114,087	77,993	10,151	1,069	8	560,683
1951	331,788	140,689	169,428	5,201	1,044	7	648,157
1952	420,879	260,990	184,645	7,768	1,505	9	875,796
1953	332,479	223,914	235,215	13,018	1,728	10	806,364
1954	320,947	176,260	130,107	4,062	1,569	4	632,949
1955	359,853	198,411	237,748	3,725	318	9	800,064
1956	300,917	131,116	156,418	6,127	693	4	595,275
1957	403,286	139,183	82,915	4,675	569	12	630,640
1958	426,419	131,437	122,389	3,673	455	6	684,379
1959	345,028	129,026	86,560	2,695	906	22	564,237
1960	256,049	113,676	59,713	3,268	1,026		433,732
1961	281,980	139,719	17,111	3,456	896	12	443,174
1962	286,625	164,025	28,179	14,788	1,013	27	494,657
1963	278,560	129,418	60,319	12,658	739	34	481,728
1964	344,422	117,252	99,856	53,602	632	45	615,809
1965	317,957	166,453	55,125	76,032	496	64	616,127
1966	340,111	143,661	156,661	71,891	872	58	713,254
1967	366,237	121,872	144,158	96,488	352	50	729,157
1968	341,154	106,974	108,207	63,488	79	21	619,923
1969	507,543	140,782	59,636	49,378	143	86	757,568
1970	384,780	113,510	70,762	80,116	209	150	649,527
1971	405,702	193,966	87,447	75,989	29	176	763,309
1972	394,456	185,866	56,323	65,932	1	51	702,649
1973	398,635	157,823	58,979	54,609	43	12	670,101
Total	12,791,188	5,173,610	3,457,246	882,289	38,045	907	22,343,285
36-Year Average	355,311	143,711	96,035	24,508	1,057	25	620,647

TABLE 3

MONTHLY TOTALS OF SALMONIDS AND SHAD COUNTED OVER BONNEVILLE DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Chinook	-	-	1,585	128,495	12,068	24,164	21,196	31,513	170,895	8,457	262	-	398,635
Steelhead	-	-	830	2,534	1,367	5,360	53,820	46,399	43,275	3,918	320	-	157,823
Sockeye	-	-	-	-	17	29,314	29,308	337	3	-	-	-	58,979
Coho	-	-	-	-	-	-	636	12,656	33,736	6,715	866	-	54,609
Chum	-	-	-	-	-	-	-	-	31	7	5	-	43
Pink	-	-	-	-	-	-	2	-	8	2	-	-	12
Total Salmon		-	2,415	131,029	13,452	58,838	104,962	90,905	247,948	19,099	1,453	-	670,101
Shad	-	-	-	-	116,057	377,830	24,701	577	38	4	-	-	519,207

TABLE 3

TABLE 4
WATER TEMPERATURE AND STREAM FLOW DATA
BONNEVILLE - 1973

DATE	JANUARY			FEBRUARY		
	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	40	112,800	6.5	37	151,900	2.0
2	41	158,100	6.7	37	186,200	2.0
3	41	165,700	6.7	37	140,000	2.0
4	41	190,000	6.8	38	113,600	2.2
5	41	173,600	6.8	38	130,000	1.0
6	41	142,200	6.8	38	133,600	1.0
7	40	134,400	6.9	38	171,100	1.1
8	39	200,400	6.0	37	176,900	1.1
9	38	198,400	5.5	38	172,700	1.8
10	38	166,500	5.5	38	140,800	1.8
11	37	176,500	5.4	38	125,300	1.8
12	38	156,900	5.0	38	122,600	1.9
13	40	119,300	4.5	38	127,100	1.9
14	38	137,500	1.9	38	144,000	1.9
15	39	173,100	1.5	38	171,200	1.8
16	39	163,100	1.5	38	158,100	1.8
17	39	163,300	1.4	38	144,800	2.4
18	38	176,500	1.4	38	100,500	3.0
19	38	182,700	1.4	39	142,400	3.0
20	38	145,500	1.4	39	145,100	3.1
21	38	140,400	1.5	39	160,900	3.1
22	38	167,800	2.2	39	147,700	3.3
23	38	167,200	2.2	39	149,300	4.3
24	37	156,000	2.9	39	132,000	4.3
25	37	142,200	2.9	39	109,500	3.8
26	37	154,500	2.8	39	137,800	4.3
27	37	169,300	2.8	39	127,900	4.4
28	37	141,500	2.2	40	118,700	4.4
29	37	178,800	1.6			
30	37	164,300	2.5			
31	37	138,800	2.3			

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 5

BONNEVILLE PROJECT

MARCH 1973

	FISH COUNTS*								RIVER CONDITIONS			
DATE	CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUMS	PINKS	TOTAL SALMONIDS	SHAD	DISCHARGE, CFS	SPILL, CFS	TURBIDITY, SEECHI UNITS	WATER TEMP., DEG. F.
1							0		156,900		5.6	40
2							0		141,600		5.6	40
3							0		139,100		5.8	40
4							0		116,600		5.2	40
5							0		169,400		5.6	40
6							0		169,400		5.6	41
7							0		179,700		5.6	42
8							0		169,700		5.6	42
9							0		174,200		5.4	42
10							0		139,400		5.2	42
11							0		122,500		5.0	43
12							0		185,900		5.0	43
13							0		147,100	-	4.8	44
14							0		142,500		4.8	44
15	3	0	0	12	0	0	15	0	151,600	13,300	4.8	44
16	5	0	0	9	0	0	14	0	177,000	36,200	4.8	44
17	24	0	0	131	0	0	155	0	118,100	2,600	4.0	44
18	4	0	0	39	0	0	43	0	115,200	2,400	3.1	44
19	0	0	0	81	0	0	81	0	159,600	18,900	4.0	44
20	7	0	0	12	0	0	19	0	147,100	10,100	4.0	44
21	19	0	0	29	0	0	48	0	151,100	10,200	4.0	44
22	22	0	0	50	0	0	72	0	150,700	11,600	3.6	44
23	30	0	0	21	0	0	51	0	161,100	20,400	3.8	45
24	51	0	0	61	0	0	112	0	126,200	2,500	3.4	45
25	104	0	0	71	0	0	175	0	121,000	2,500	3.7	45
26	194	0	0	97	0	0	291	0	163,100	22,400	3.6	45
27	205	0	0	54	0	0	259	0	184,200	40,700	3.6	45
28	374	0	0	63	0	0	437	0	184,400	41,000	3.8	46
29	261	0	0	29	0	0	290	0	204,600	61,100	3.9	46
30	127	0	0	27	0	0	154	0	172,000	29,900	3.8	46
31	155	0	0	44	0	0	199	0	110,600	2,400	3.8	46
TOTALS	1,585	0	0	830	0	0	2,415	0				

*JACK SALMONIDS ARE INCLUDED.

MONTHLY FISH PASSAGE SUMMARY REPORT — BONNEVILLE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 6 — APRIL 1973

TABLE 6

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	1,781	0	0	0	0	312	0	0	2,093	0	128,500	2,400	4.0	46
2	2,722	0	0	0	0	149	0	0	2,871	0	176,900	34,500	4.0	46
3	1,758	0	0	0	0	50	0	0	1,808	0	210,000	64,800	4.0	46
4	2,169	0	0	0	0	107	0	0	2,276	0	169,800	25,900	4.0	47
5	3,258	0	0	0	0	112	0	0	3,370	0	152,700	11,300	4.0	47
6	2,573	0	0	0	0	87	0	0	2,660	0	147,000	7,200	4.0	47
7	2,447	0	0	0	0	82	0	0	2,529	0	104,700	2,700	3.7	47
8	2,306	0	0	0	0	92	0	0	2,398	0	107,000	2,400	3.9	47
9	3,946	0	0	0	0	83	0	0	4,029	0	136,700	7,900	3.9	48
10	2,637	0	0	0	0	89	0	0	2,726	0	180,100	37,600	3.6	48
11	4,924	0	0	0	0	152	0	0	5,076	0	150,800	9,100	3.7	48
12	4,193	0	0	0	0	148	0	0	4,341	0	150,200	10,600	4.0	49
13	4,052	0	0	0	0	102	0	0	4,154	0	150,900	10,200	4.0	49
14	7,278	0	0	0	0	111	0	0	7,389	0	118,200	2,400	4.0	50
15	8,411	0	0	0	0	108	0	0	8,519	0	117,100	2,400	4.0	50
16	8,206	0	0	0	0	85	0	0	8,291	0	138,000	8,200	4.0	50
17	5,633	0	0	0	0	37	0	0	5,670	0	175,600	32,700	4.1	50
18	3,544	0	0	0	0	32	0	0	3,576	0	192,600	48,100	4.1	50
19	4,977	0	0	0	0	52	0	0	5,029	0	166,600	22,800	3.8	50
20	5,201	0	0	0	0	46	0	0	5,247	0	143,600	2,500	3.8	50
21	5,142	0	0	0	0	34	0	0	5,176	0	118,400	2,400	3.8	50
22	6,682	0	0	0	0	39	0	0	6,721	0	102,900	2,400	3.7	51
23	8,735	0	0	0	0	70	0	0	8,805	0	131,300	3,900	4.0	50
24	3,722	0	0	0	0	49	0	0	3,771	0	137,500	2,400	4.2	51
25	5,104	0	0	0	0	65	0	0	5,169	0	132,800	2,400	4.2	52
26	6,573	0	0	0	0	40	0	0	6,613	0	136,300	4,100	4.2	52
27	3,846	0	0	0	0	45	0	0	3,891	0	142,100	4,300	3.2	52
28	2,729	0	0	0	0	61	0	0	2,790	0	135,200	4,900	4.2	52
29	2,298	0	0	0	0	57	0	0	2,355	0	116,700	3,100	3.8	53
30	1,648	0	0	0	0	38	0	0	1,686	0	126,900	2,500	4.0	53
TOTALS	128,495	0	0	0	0	2,534	0	0	131,029	0				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 7

BONNEVILLE PROJECT

MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	722	0	0	0	0	26	0	0	748	0	141,300	2,400	4.0	52
2	760	0	0	0	0	24	0	0	784	0	141,700	2,400	3.0	53
3	419	0	0	0	0	19	0	0	438	0	140,500	3,800	3.0	53
4	549	0	0	0	0	24	0	0	573	0	166,200	24,400	3.0	54
5	459	0	0	0	0	8	0	0	467	0	132,100	4,000	3.0	54
6	524	0	0	0	0	20	0	0	544	0	118,800	2,800	3.0	54
7	298	0	0	0	1	19	0	0	318	0	164,700	25,900	3.0	54
8	327	0	0	0	0	30	0	0	357	0	145,300	6,100	3.0	54
9	300	0	0	0	0	25	0	0	325	0	170,600	29,100	2.9	55
10	317	0	0	0	0	22	0	0	339	4	165,800	23,400	2.9	55
11	297	0	0	0	0	24	0	0	321	107	150,300	9,700	2.9	56
12	418	0	0	0	0	39	0	0	457	422	130,100	2,400	3.2	56
13	392	0	0	0	0	36	0	0	428	462	128,000	2,400	3.1	57
14	375	0	0	0	0	49	0	0	424	1,802	148,000	8,500	3.2	57
15	330	0	0	0	0	62	0	0	392	7,769	142,300	2,400	3.2	58
16	311	0	0	0	0	63	0	0	374	7,216	147,000	13,000	3.2	59
17	190	0	0	0	3	42	0	0	235	4,973	163,600	21,400	3.2	59
18	206	0	0	0	0	62	0	0	268	3,001	178,500	34,800	3.1	60
19	181	0	0	0	0	65	0	0	246	3,097	165,000	22,100	2.8	60
20	173	0	0	0	0	44	0	0	217	1,765	162,900	20,300	3.1	60
21	153	0	0	0	0	34	0	0	187	2,145	170,300	26,700	3.1	59
22	193	0	0	0	1	54	0	0	248	1,518	146,700	11,600	3.1	60
23	183	0	0	0	2	67	0	0	252	882	166,400	24,500	2.8	60
24	142	0	0	0	1	63	0	0	206	7,821	143,400	2,400	2.8	60
25	257	0	0	0	0	56	0	0	313	3,080	160,700	18,700	2.7	60
26	464	0	0	0	2	82	0	0	548	4,336	140,700	2,500	2.7	60
27	604	0	0	0	0	64	0	0	668	11,044	137,400	2,500	2.8	60
28	526	0	0	0	4	39	0	0	569	7,243	141,000	2,700	2.8	60
29	518	0	0	0	0	59	0	0	577	11,519	150,800	10,200	2.8	60
30	744	0	0	0	3	72	0	0	819	23,695	152,200	11,000	2.8	61
31	736	0	0	0	0	74	0	0	810	12,156	156,100	14,500	2.8	61
TOTALS	12,068	0	0	0	17	1,367	0	0	13,452	116,057				

MONTHLY FISH PASSAGE SUMMARY REPORT — BONNEVILLE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 8 — JUNE 1973

TABLE 8

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	800	0	0	9	57	0	0	866	11,689	166,500	24,400	2.8	61
2	0	965	0	0	8	58	0	0	1,031	16,088	132,600	3,300	2.8	61
3	0	839	0	0	3	74	0	0	916	3,277	135,700	2,400	3.0	61
4	0	712	0	0	14	46	0	0	772	11,147	184,900	41,700	3.0	61
5	0	736	0	0	3	90	0	0	829	16,538	162,900	25,600	2.8	61
6	0	830	0	0	12	140	0	0	982	34,923	146,400	11,500	2.8	61
7	0	740	0	0	15	77	0	0	832	23,159	155,200	18,900	3.0	62
8	0	933	0	0	60	100	0	0	1,093	27,971	191,900	53,600	3.0	62
9	0	884	0	0	86	84	0	0	1,054	9,190	150,200	7,400	3.0	62
10	0	1,116	0	0	128	181	0	0	1,425	8,622	115,300	2,400	3.2	62
11	0	977	0	0	130	133	0	0	1,240	20,872	159,000	22,000	3.2	62
12	0	1,203	0	0	127	160	0	0	1,490	46,892	148,200	15,100	3.2	62
13	0	1,094	0	0	212	158	0	0	1,464	27,701	147,800	14,700	3.0	62
14	0	882	0	0	296	144	0	0	1,322	17,501	150,900	16,600	3.0	63
15	0	829	0	0	406	152	0	0	1,387	17,982	143,000	7,700	3.0	63
16	0	959	0	0	459	178	0	0	1,596	17,204	127,200	2,400	3.0	62
17	0	1,058	0	0	679	266	0	0	2,003	9,828	112,600	2,500	3.2	61
18	0	736	0	0	559	158	0	0	1,453	7,106	145,200	13,200	3.2	62
19	0	632	0	0	684	189	0	0	1,505	13,178	142,100	2,400	3.1	62
20	0	738	0	0	998	190	0	0	1,926	9,157	149,100	24,500	3.1	63
21	0	719	0	0	1,672	128	0	0	2,519	4,315	156,400	27,800	3.1	63
22	0	662	0	0	1,601	149	0	0	2,412	2,296	147,600	8,300	3.1	63
23	0	860	0	0	2,184	214	0	0	3,258	5,308	119,400	2,500	3.2	64
24	0	803	0	0	2,943	257	0	0	4,003	8,180	110,700	2,500	3.1	64
25	0	536	0	0	2,854	244	0	0	3,628	1,613	145,100	9,700	3.0	63
26	0	462	0	0	2,236	259	0	0	2,957	2,113	141,600	2,400	2.8	63
27	0	358	0	0	2,143	262	0	0	2,763	1,617	142,100	3,100	2.8	64
28	0	399	0	0	1,865	331	0	0	2,595	1,024	148,300	9,700	2.8	64
29	0	542	0	0	2,742	399	0	0	3,683	786	148,400	9,200	2.8	64
30	0	1,166	0	0	4,186	482	0	0	5,834	553	118,300	3,000	3.0	64
TOTALS	0	24,164	0	0	29,314	5,360	0	0	58,838	377,830				

MONTHLY FISH PASSAGE SUMMARY REPORT — BONNEVILLE PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 9 — JULY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	958	0	0	3,558	488	0	0	5,004	360	109,800	3,000	3.1	64
2	0	569	0	0	2,909	629	0	0	4,107	872	142,500	3,000	3.1	65
3	0	578	0	0	1,814	646	0	0	3,038	797	121,900	3,500	3.1	64
4	0	672	0	0	2,530	803	0	0	4,005	1,988	104,700	2,400	3.1	65
5	0	563	0	0	1,958	855	0	0	3,376	1,478	127,500	2,400	4.0	66
6	0	641	0	0	1,884	1,096	0	0	3,621	1,942	141,900	2,400	4.2	66
7	0	929	0	0	2,358	1,183	0	0	4,470	3,158	114,100	2,500	4.8	66
8	0	735	0	0	1,657	1,039	0	0	3,431	1,477	101,300	2,400	4.8	66
9	0	570	0	0	1,525	1,084	0	0	3,179	1,216	138,500	8,500	5.1	66
10	0	901	0	0	1,859	1,658	0	0	4,418	2,276	161,800	20,900	5.1	67
11	0	539	0	0	1,157	1,519	0	0	3,215	968	153,500	12,400	5.2	67
12	0	732	0	0	1,046	1,945	0	0	3,723	524	172,200	29,400	4.4	67
13	0	1,187	0	0	899	2,244	0	0	4,330	707	171,500	28,100	4.6	67
14	0	882	0	0	664	1,992	0	0	3,538	702	121,900	2,400	4.5	68
15	0	494	0	0	514	1,503	0	0	2,511	634	100,800	2,400	4.5	69
16	0	702	0	0	480	2,512	0	1	3,695	412	137,300	13,400	4.5	69
17	0	879	0	0	285	2,142	0	0	3,306	549	165,100	24,800	4.2	69
18	0	812	0	3	296	2,054	0	0	3,165	866	168,300	25,500	4.2	70
19	0	589	0	1	238	1,554	0	0	2,382	575	158,500	16,600	4.2	70
20	0	516	0	0	279	1,493	0	1	2,289	630	140,800	9,100	4.0	70
21	0	683	0	0	303	2,180	0	0	3,166	364	103,600	2,400	4.0	70
22	0	604	0	0	226	2,195	0	0	3,025	215	100,400	2,400	4.3	69
23	0	404	0	0	169	1,558	0	0	2,131	168	121,600	2,400	4.2	69
24	0	429	0	4	153	2,038	0	0	2,624	196	134,400	2,400	4.2	69
25	0	515	0	2	162	2,116	0	0	2,795	186	122,000	2,400	4.2	69
26	0	590	0	82	143	2,221	0	0	3,036	218	133,100	2,400	4.2	70
27	0	619	0	84	75	2,216	0	0	2,994	252	140,200	2,400	5.0	72
28	0	822	0	106	71	3,116	0	0	4,115	366	120,100	2,500	5.0	71
29	0	925	0	83	42	3,203	0	0	4,253	370	106,500	2,500	4.8	71
30	0	592	0	131	28	2,034	0	0	2,785	143	124,700	2,400	4.9	72
31	0	565	0	140	26	2,504	0	0	3,235	92	140,900	2,400	4.8	72
TOTALS	0	21,196	0	636	29,308	53,820	0	2	104,962	24,701				

TABLE 10

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 10

BONNEVILLE PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	523	167	26	1,899	0	0	2,615	68	153,700	15,400	4.6	72
2	0	0	682	211	9	2,195	0	0	3,097	58	162,400	21,100	4.5	70
3	0	0	454	87	43	1,223	0	0	1,807	54	179,300	36,400	4.2	70
4	0	0	561	109	30	1,715	0	0	2,415	92	131,100	4,300	4.2	70
5	0	0	341	103	25	989	0	0	1,458	41	100,900	2,400	4.2	70
6	0	0	465	127	19	1,131	0	0	1,742	22	132,000	2,400	4.8	70
7	0	0	484	252	21	1,598	0	0	2,355	34	142,900	5,100	5.0	70
8	0	0	472	196	11	1,410	0	0	2,089	40	145,600	6,200	5.2	70
9	0	0	645	369	12	1,907	0	0	2,933	36	150,100	9,700	5.2	70
10	0	0	511	280	10	1,343	0	0	2,144	14	132,600	7,700	5.2	70
11	0	0	804	247	9	1,265	0	0	2,325	11	102,400	2,500	5.2	70
12	0	0	626	220	22	1,317	0	0	2,185	11	102,200	2,500	5.2	70
13	0	0	405	267	19	1,094	0	0	1,785	8	121,100	2,400	5.2	70
14	0	0	732	280	22	1,155	0	0	2,189	13	108,200	2,500	5.3	71
15	0	0	790	176	29	1,227	0	0	2,222	10	119,800	2,500	5.3	71
16	0	0	830	93	4	1,405	0	0	2,332	11	119,500	2,400	5.4	70
17	0	0	963	54	11	1,197	0	0	2,225	4	149,200	10,500	5.5	70
18	0	0	1,049	200	1	1,220	0	0	2,470	5	108,900	2,500	5.5	70
19	0	0	1,288	178	0	1,172	0	0	2,638	4	100,200	2,500	6.5	70
20	0	0	1,172	371	1	1,373	0	0	2,917	2	121,000	2,400	6.5	70
21	0	0	2,277	397	2	1,965	0	0	4,641	0	107,900	2,500	6.5	70
22	0	0	1,298	818	1	1,894	0	0	4,011	5	127,400	2,500	6.5	70
23	0	0	1,465	469	0	2,113	0	0	4,047	3	124,400	2,400	6.5	70
24	0	0	906	552	0	1,459	0	0	2,917	1	138,200	2,400	6.3	68
25	0	0	1,068	392	1	834	0	0	2,295	4	107,600	2,500	6.5	68
26	0	0	1,071	560	1	948	0	0	2,580	0	95,100	2,400	6.4	68
27	0	0	1,291	453	0	1,206	0	0	2,950	2	108,400	2,400	6.4	68
28	0	0	1,437	848	0	1,046	0	0	3,331	19	117,000	2,500	5.5	67
29	0	0	2,134	1,198	6	2,142	0	0	5,480	5	138,300	2,400	5.5	67
30	0	0	1,958	1,199	2	1,690	0	0	4,849	0	139,600	2,400	5.5	68
31	0	0	2,811	1,783	0	3,267	0	0	7,861	0	138,800	2,400	5.5	67
TOTALS	0	0	31,513	12,656	337	46,399	0	0	90,905	577				

MONTHLY FISH PASSAGE SUMMARY REPORT

BONNEVILLE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 11

SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	0	2,941	1,501	0	2,248	0	1	6,691	0	97,800	2,500	5.4	66
2	0	0	3,319	1,904	0	3,240	31	0	8,494	0	95,500	2,500	5.4	67
3	0	0	4,803	2,171	0	3,099	0	0	10,073	0	96,900	2,400	5.4	67
4	0	0	7,554	2,125	0	3,469	0	0	13,148	1	94,600	2,400	5.5	67
5	0	0	11,367	2,566	0	3,286	0	2	17,221	1	90,400	2,400	5.4	67
6	0	0	11,886	2,683	0	2,990	0	1	17,560	2	95,200	2,500	4.8	67.0
7	0	0	14,409	2,723	0	2,761	0	0	19,893	0	94,900	2,500	4.9	67.0
8	0	0	15,858	1,937	0	2,185	0	1	19,981	4	78,900	2,500	5.6	67.0
9	0	0	13,731	1,671	0	1,636	0	1	17,039	6	79,700	2,500	5.6	66
10	0	0	14,353	1,848	0	1,859	0	0	18,060	1	115,700	2,400	5.1	67.0
11	0	0	13,970	1,436	1	1,871	0	0	17,278	1	112,300	2,400	4.6	67.0
12	0	0	14,017	1,905	0	1,945	0	0	17,867	2	112,800	2,500	4.8	67.0
13	0	0	8,966	1,590	0	1,721	0	0	12,277	1	115,200	2,500	4.9	67.0
14	0	0	5,151	1,140	0	1,434	0	1	7,726	1	123,300	2,500	4.7	67.0
15	0	0	5,930	1,151	2	1,330	0	1	8,414	0	97,100	2,500	4.9	67.0
16	0	0	3,457	859	0	1,050	0	0	5,366	4	88,000	2,500	5.0	66.0
17	0	0	2,402	673	0	812	0	0	3,887	0	104,100	2,500	4.8	65.0
18	0	0	2,200	607	0	769	0	0	3,576	1	100,200	2,500	4.8	65
19	0	0	2,112	624	0	811	0	0	3,547	2	111,300	2,500	4.8	65.0
20	0	0	1,826	387	0	622	0	0	2,835	0	122,900	2,500	4.8	65.0
21	0	0	1,601	314	0	558	0	0	2,473	0	114,700	2,500	4.6	65.0
22	0	0	1,149	251	0	571	0	0	1,971	2	107,500	2,500	4.6	65.0
23	0	0	1,364	242	0	571	0	0	2,177	0	87,200	2,500	4.8	65.0
24	0	0	899	195	0	508	0	0	1,602	0	110,200	2,400	4.8	65.0
25	0	0	1,124	210	0	439	0	0	1,773	4	103,800	2,400	4.8	65.0
26	0	0	630	122	0	226	0	0	978	2	115,100	2,400	4.8	65.0
27	0	0	761	154	0	324	0	0	1,239	1	113,800	2,400	5.0	65.0
28	0	0	1,005	174	0	312	0	0	1,491	1	106,100	2,400	5.2	65.0
29	0	0	1,276	299	0	351	0	0	1,926	0	94,500	2,500	5.0	65
30	0	0	834	274	0	277	0	0	1,385	1	85,600	2,500	5.0	65
TOTALS	0	0	170,895	33,736	3	43,275	31	8	247,948	38				

MONTHLY FISH PASSAGE SUMMARY REPORT — BONNEVILLE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 12 — OCTOBER 1973

TABLE 12

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	584	212	0	227	0	0	1,023	0	132,100	2,400	4.6	64.0
2	0	0	563	165	0	313	0	0	1,041	0	128,300	2,400	4.6	64.0
3	0	0	687	132	0	339	0	0	1,158	0	122,400	2,500	6.0	63.0
4	0	0	557	131	0	300	0	0	988	0	138,200	2,400	5.9	63.0
5	0	0	432	248	0	193	0	1	874	2	115,900	2,400	5.9	62.0
6	0	0	320	280	0	151	0	1	752	0	102,200	2,500	5.8	62.0
7	0	0	334	355	0	131	0	0	820	0	95,200	2,500	5.6	62.0
8	0	0	283	268	0	118	0	0	669	0	116,800	2,500	5.6	61.0
9	0	0	340	235	0	178	1	0	754	0	123,700	2,400	5.6	61.0
10	0	0	446	256	0	175	0	0	877	0	107,300	2,400	6.0	61
11	0	0	417	161	0	185	0	0	763	0	114,100	2,400	6.0	61.0
12	0	0	367	186	0	142	0	0	695	0	111,400	2,400	5.0	60.0
13	0	0	286	212	0	119	0	0	617	0	102,100	2,500	5.8	60.0
14	0	0	329	269	0	86	0	0	684	0	83,900	2,500	5.8	60.0
15	0	0	175	168	0	82	0	0	425	0	118,000	800	5.5	60
16	0	0	182	211	0	99	0	0	492	1	100,300	0	5.5	61.0
17	0	0	229	249	0	90	0	0	568	1	129,400	0	5.1	61.0
18	0	0	185	206	0	100	0	0	491	0	109,500	0	5.0	61.0
19	0	0	251	261	0	77	0	0	589	0	113,400	0	5.0	61.0
20	0	0	195	206	0	83	0	0	484	0	93,600	0	5.0	60.0
21	0	0	181	239	0	100	0	0	520	0	89,800	0	5.0	60.0
22	0	0	226	343	0	86	0	0	655	0	110,900	0	4.9	60.0
23	0	0	166	206	0	82	0	0	454	0	129,500	0	4.9	60.0
24	0	0	166	299	0	97	0	0	562	0	118,800	0	4.9	59.0
25	0	0	165	328	0	96	0	0	589	0	122,200	0	4.9	59.0
26	0	0	80	185	0	53	1	0	319	0	112,900	0	5.1	58.0
27	0	0	78	185	0	54	2	0	319	0	92,300	0	5.0	59.0
28	0	0	79	179	0	42	3	0	303	0	85,700	0	5.0	57.0
29	0	0	41	140	0	31	0	0	212	0	112,300	0	5.0	57.0
30	0	0	55	77	0	47	0	0	179	0	110,200	0	5.0	57.0
31	0	0	58	123	0	42	0	0	223	0	133,200	500	5.0	57.0
TOTALS	0	0	8,457	6,715	0	3,918	7	2	19,099	4				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 13

BONNEVILLE PROJECT

NOVEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	0	52	119	0	13	0	0	184	0	135,000	0	4.8	57.0
2	0	0	35	72	0	36	0	0	143	0	135,500	0	4.8	57.0
3	0	0	38	89	0	29	1	0	157	0	134,900	0	4.3	56.0
4	0	0	26	57	0	30	1	0	114	0	130,000	0	4.0	55.0
5	0	0	14	56	0	24	0	0	94	0	134,400	0	4.0	54.0
6	0	0	11	76	0	40	1	0	128	0	134,200	0	4.0	53.0
7	0	0	24	75	0	16	0	0	115	0	122,700	0	5.0	53.0
8	0	0	14	48	0	10	0	0	72	0	104,900	0	5.2	53.0
9	0	0	8	23	0	5	0	0	36	0	109,600	0	5.2	52.0
10	0	0	13	46	0	26	0	0	85	0	107,500	0	5.2	52.0
11	0	0	5	58	0	13	0	0	76	0	110,200	0	5.2	52.0
12	0	0	4	51	0	12	0	0	67	0	120,500	0	5.2	52.0
13	0	0	8	59	0	31	1	0	99	0	119,900	0	4.6	52.0
14	0	0	5	23	0	23	0	0	51	0	135,900	0	4 6	51.0
15	0	0	5	14	0	12	1	0	32	0	151,000	17,700	3.0	50.0
16											170,000	0	3.0	50.0
17											128,800	0	3.5	50.0
18											126,700	0	3.5	50.0
19											135,800	0	3.5	50.0
20											135,200	0	3.0	49.0
21											125,200	0	3.0	48.0
22											117,800	0	3.0	48.0
23											134,700	0	3.6	48.0
24											112,900	0	4.2	48.0
25											108,300	0	4.5	48.0
26											138,700	0	4.4	48.0
27											132,300	0	4.4	48.0
28											134,600	0	4.4	48.0
29											137,000	0	4.1	48.0
30											136,800	0	4.1	48.0
TOTALS	0	0	262	866	0	320	5	0	1,453	0				

*JACK SALMONIDS ARE INCLUDED

TABLE 14

TABLE 14
WATER TEMPERATURE AND STREAM FLOW DATA
BONNEVILLE - 1973

DATE	DECEMBER		
	WATER TEMP.	STREAM FLOW	TURBIDITY
1	48	137,300	4.1
2	48	133,400	4.1
3	48	127,800	4.2
4	48	141,900	4.2
5	47	171,200	4.2
6	46	151,300	4.2
7	47	176,300	4.4
8	46	144,700	4.2
9	46	162,700	4.4
10	46	167,300	3.7
11	46	187,200	4.2
12	46	168,900	4.0
13	46	155,300	2.6
14	46	190,300	2.6
15	46	176,300	2.5
16	46	137,400	2.8
17	46	156,000	2.7
18	46	175,800	2.7
19	45	207,200	1.9
20	45	213,800	2.0
21	45	213,300	2.0
22	45	241,600	1.4
23	45	170,800	1.6
24	45	212,400	1.5
25	45	230,200	1.5
26	45	220,100	1.5
27	45	226,400	1.5
28	43	252,300	1.5
29	44	252,500	1.5
30	44	205,700	1.4
31	44	204,100	1.4

TABLE 15

PEAK DAYS OF FISH MIGRATION

BONNEVILLE DAM - 1938-1973

	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho		Chum		Shad	
Year	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1938[1]	May 10	2,978	Aug 11	1,102	Sep 9	16,736	Sep 2	4,356	Jul 13	8,407	Aug 31	1,941	Oct 28	190	Jul 20	285
1939	Apr 23	5,220	Jul 27	1,173	Sep 8	13,531	Jul 30	3,857	Jun 29	3,654	Sep 5	1,233	Oct 28	131	Jun 29	306
1940	Apr 19	3,303	Aug 15	719	Sep 1	33,900	Sep 8	6,783	Jun 30	7,371	Sep 7	1,274	Nov 3	140	Jun 25	2,030
1941	Apr 27	4,215	Jul 6	480	Sep 6	33,263	Sep 10	4,357	Jul 2	3,599	Sep 6	2,311	Nov 14	376	Jul 3	2,483
1942	May 7	2,579	Jun 7	949	Sep 8	44,507	Sep 10	9,410	Jul 3	3,248	Sep 3	1,261	Nov 9	164	Jun 21	1,115
1943	Apr 30	4,168	Jun 30	473	Sep 4	20,623	Sep 9	3,918	Jul 7	2,070	Sep 4	372	Nov 10	54	Jul 19	485
1944	Apr 26	2,182	Aug 14	758	Sep 3	16,800	Sep 5	3,654	Jul 9	811	Sep 5	540	Nov 4	61	Jul 10	2,343
1945	May 3	3,836	Jul 15	1,050	Sep 11	19,913	Sep 9	3,906	Jul 10	618	Sep 7	65	Nov 1	49	Jul 10	6,634
1946	May 7	4,135	Jun 14	2,424	Sep 10	34,619	Aug 6	4,333	Jul 12	5,079	Sep 10	618	Nov 18	96	Jul 11	1,285
1947	Apr 18	14,735	Aug 15	3,002	Sep 4	32,680	Sep 4	6,511	Jun 26	11,101	Sep 7	1,559	Oct 31	17	Jul 2	3,665
1948	Apr 16	3,927	Jun 25	5,298	Sep 4	25,708	Sep 4	4,131	Jul 4	11,840	Sep 5	601	Nov 21	156	Jul 17	1,199
1949	May 12	4,422	Jul 5	1,862	Sep 7	19,618	Aug 1	4,211	Jul 5	4,129	Sep 7	115	Nov 24	121	Jul 15	2,393
1950	May 10	5,055	Jul 10	2,841	Sep 8	27,677	Aug 13	4,073	Jul 8	6,254	Sep 2	1,274	Nov 29	61	Jul 24	804
1951	May 9	10,673	Jun 5	3,610	Sep 10	10,196	Jul 18	4,272	Jun 28	12,288	Sep 7	559	Nov 18	115	Jul 3	603
1952	May 27	7,594	Jun 19	4,116	Sep 4	17,322	Jul 28	8,920	Jun 24	19,571	Aug 30	737	Nov 16	92	Jul 15	441
1953	Apr 22	12,950	Jun 26	3,897	Sep 3	9,083	Jul 27	6,884	Jul 5	20,351	Aug 29	1,012	Nov 7	116	Jul 9	1,786
1954	May 5	7,735	Jun 28	3,124	Sep 5	8,312	Jul 28	5,631	Jun 28	10,537	Sep 4	607	Nov 14	120	Jul 30	320
1955	May 2	13,763	Jun 23	4,912	Sep 5	8,645	Jul 27	9,337	Jul 7	27,112	Sep 5	374	Nov 9	28	Jul 26	533
1956	May 7	5,291	Jun 23	6,419	Sep 6	8,924	Jul 26	4,069	Jul 5	12,958	Sep 6	645	Nov 4	43	Jul 13	1,236
1957	Apr 30	13,222	Jun 18	11,030	Sep 5	8,834	Jul 25	5,093	Jun 24	5,288	Sep 11	287	Nov 12	46	Jul 11	1,336
1958	May 9	4,833	Jun 17	4,634	Sep 15	22,380	Jul 25	5,053	Jul 6	7,174	Sep 2	345	Nov 6	43	Jul 10	1,051
1959	Apr 24	2,827	Jun 23	5,242	Sep 6	14,656	Jul 22	7,472	Jul 9	7,369	Sep 6	249	Nov 20	95	Jul 17	899
1960	Apr 29	6,231	Jun 14	7,151	Sep 5	7,848	Jul 25	4,816	Jun 23	3,695	Sep 4	285	Nov 11	67	Jun 30	9,584
1961	Apr 27	7,620	Jun 19	3,322	Sep 6	8,210	Jul 31	4,611	Jul 2	1,037	Sep 12	411	Nov 23	42	Jul 4	36,835
1962	Apr 23	4,767	Jun 16	4,930	Sep 1	7,750	Sep 2	6,134	Jul 1	1,925	Sep 12	1,435	Nov 23	89	Jul 14	32,518
1963	Apr 24	4,028	Jun 18	2,749	Sep 6	12,955	Jul 31	6,051	Jun 30	4,100	Sep 6	549	Nov 8	44	Jul 6	23,473
1964	Apr 29	5,256	Jun 25	3,713	Sep 8	16,086	Jul 29	5,079	Jul 1	9,631	Sep 13	3,899	Nov 10	38	Jul 12	22,359
1965	May 10	4,959	Jun 23	3,588	Sep 8	12,599	Jul 27	6,405	Jun 30	3,408	Sep 10	5,408	Nov 15	35	Jul 16	40,018
1966	Apr 16	6,077	Jun 21	2,882	Sep 17	8,121	Jul 16	3,523	Jul 1	3,768	Sep 20	8,121	Nov 15	57	Jul 10	27,744
1967	Apr 21	5,325	Jul 2	4,188	Sep 15	13,838	Sep 8	2,807	Jul 5	10,235	Sep 15	5,988	Nov 12	33	Jul 6	14,760
1968	Apr 22	5,245	Jun 10	2,716	Sep 7	10,607	Jul 31	2,760	Jun 25	7,359	Sep 1	4,611	Nov 17	7	Jul 4	15,961
1969	May 7	8,182	Jun 19	4,598	Sep 9	16,995	Jul 23	3,771	Jul 3	4,466	Sep 15	3,225	Nov 3	9	Jun 20	36,293
1970	May 1	5,047	Jun 24	1,938	Sep 11	19,363	Aug 5	2,986	Jul 5	3,498	Sep 11	8,576	Oct 23	11	Jun 26	25,537
1971	Apr 27	7,155	Jul 1	2,247	Sep 9	14,097	Jul 27	5,438	Jul 7	5,926	Sep 6	6,798	Sep 6	6	Jul 16	11,977
1972	Apr 26	19,241	Jun 23	3,743	Sep 9	10,752	Sep 11	5,359	Jul 6	4,000	Sep 13	3,774	Oct 1	1	Jul 5	19,490
1973	Apr 23	8,735	Jun 12	1,203	Sep 8	15,858	Sep 4	3,469	Jun 30	4,186	Sep 7	2,723	Sep 2	31	Jun 12	46,892
Total		237,511		118,083		623,006		183,440		258,063		74,782		2,784		396,673
36-Year Average		6,597		3,280		17,306		5,095		7,168		2,077		77		11,089

1 Fish counting initiated on 7 May 1938

TABLE 15

TABLE 16

MONTHLY COUNT OF CHINOOK SALMON

BONNEVILLE DAM - 1938 - 1973

Year	Jan	Feb	Mar	Apr	May	Spring Run Totals Jan 1-May 31	Jun	Jul	Summer Run Totals Jun 1-Jul 31	Aug	Sep	Oct	Nov	Dec	Fall Run Totals Aug 1-Dec 31	Yearly Totals
1938	-	-	-	-	22,371	22,371	8,221	6,556	14,777	34,765	197,294	2,302	263	27	234,651	271,799
1939	6	12	121	51,410	25,159	76,708	5,602	17,828	23,430	32,909	150,851	2,197	78	16	186,051	286,189
1940	-	-	504	37,253	28,621	66,378	7,027	14,938	21,965	58,643	240,515	3,765	287	34	303,244	391,587
1941	4	-	1,360	51,486	19,445	72,295	7,013	9,395	16,408	12,590	351,967	7,179	866	138	372,740	461,443
1942	1	15	34	9,506	30,915	40,471	11,816	12,821	24,637	27,581	303,939	4,485	639	190	336,834	401,942
1943	11	6	43	12,172	53,268	65,500	5,440	8,044	13,484	28,985	201,414	3,354	365	21	234,139	313,123
1944	1	2	65	15,671	15,127	30,866	4,363	8,241	12,604	55,468	139,254	2,388	164	20	197,294	240,764
1945	6	4	81	17,148	26,276	43,515	11,293	16,317	27,610	32,254	189,675	4,281	137	6	226,353	297,478
1946	1	2	25	14,196	53,313	67,537	30,253	20,967	51,220	45,422	277,152	4,523	173	25	327,295	446,052
1947	-	2	141	83,520	49,899	133,562	25,502	13,358	38,860	43,062	260,385	3,945	526	37	307,955	480,377
1948	10		251	21,205	20,262	41,728	44,137	23,100	67,237	35,934	270,238	3,928	467	23	310,590	419,555
1949	-	-	5	5,765	44,304	50,074	24,232	22,500	46,732	41,500	137,599	1,571	215	6	180,891	277,697
1950	-	-	21	6,630	50,638	57,289	16,667	32,937	49,604	40,462	205,521	4,356	143[1]	-	250,482	357,375
1951	-	-	32	28,801	86,055	114,888	54,889	24,394	79,283	33,785	97,131	6,489	212[1]	-	137,617	331,788
1952	-	-	255	8,130	107,807	116,192	62,491	21,800	84,291	82,290	135,053	2,576	477[1]	-	220,396	420,879
1953	-	-	1,254	126,450	42,583	170,287	27,228	30,593	57,821	27,398	75,145	1,495	333[1]	-	104,371	332,479
1954	-	2	657	82,877	51,230	134,766	46,801	32,596	79,397	24,969	80,426	1,189	200[1]	-	106,784	320,947
1955	-	-	1,391	84,436	85,769	171,596	45,502	37,437	82,939	32,833	70,558	1,803	124[1]	-	105,318	359,853
1956	-	-	161	8,850	54,438	63,449	64,262	36,938	101,200	42,203	92,030	1,854	179	2	136,268	300,917
1957	-	-	328	90,984	45,128	136,440	104,243	30,790	135,033	34,829	95,457	1,352	175	-	131,813	403,286
1958	-	-	468	15,361	59,377	75,206	74,375	27,524	101,899	19,735	227,504	1,948	127	-	249,314	426,419
1959	-	-	182	26,944	34,007	61,133	39,581	49,371	88,952	24,945	168,187	1,643	168	-	194,943	345,028
1960	-	-	184	37,064	32,349	69,597	65,247	19,923	85,170	22,719	76,327	2,012	224	-	101,282	256,049
1961	-	-	476	72,526	25,693	98,695	41,302	25,159	66,461	22,675	90,688	3,108	353	-	116,824	281,980
1962	-	-	1,278	56,201	33,637	91,116	52,392	25,093	77,485	23,526	91,320	2,759	419	-	118,024	286,625
1963	-	-	2,802	43,899	28,810	75,471	36,836	27,178	64,014	28,586	104,415	5,571	503	-	139,075	278,560
1964	-	-	2,418	69,031	19,979	91,428	35,814	44,717	80,531	26,546	141,525	4,157	235	-	172,463	344,422
1965	-	-	1,238	47,083	35,945	84,266	38,482	37,515	75,997	38,727	112,664	6,074	229[2]	-	157,694	317,957
1966	-	-	2,168	92,637	17,864	112,669	40,233	31,764	71,997	20,608	128,421	6,052	364	-	155,445	340,111
1967	-	-	1.620	71.957	11.358	84.935	41,847	53,812	95.659	25.760	154.323	5.405	155	-	185.643	366.237
1968	-	-	1,342	69,420	28,425	99,187	46,793	36,126	82,919	27,779	126,994	4,010	265	-	159,048	341,154
1969	-	-	1,910	65,371	106,281	173,562	59,177	42,976	102,153	38,456	187,502	5,511	359	-	231,828	507,543
1970	-	-	2,020	78,605	30,351	110,976	35,091	29,811	64,902	44,559	159,710	4,364	269	-	208,902	384,780
1971	-	-	683	60,849	63,985	125,517	37.757	40,154	77,911	26 749	166,346	8,820	359	-	202.274	405,702
1972	-	-	426	154,443	31,271	186,140	36,758	34,072	70,830	23,577	109,820	3,939	150	-	137,486	394,456
1973	-	-	1,585	128,495	12,068	142,148	24,164	21,196	45,360	31,513	170,895	8,457	262	-	211,127	398,635
Total	40	45	27,529	1,846,336	1,484,008	3,357,958	1,312,831	967,941	2,280,772	1,214,342	5,788,245	138,862	10,464	545	7,152,458	12,791,188
36-Year Average			765	51,287	41,222	93,277	36,468	26,887	63,355	33,732	160,785	3,857	291		198,679	355,311

TABLE 17

MONTHLY COUNT OF SOCKEYE SALMON

BONNEVILLE DAM - 1936 1973

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1938					1,025	17,811	53,865	2,097	235	6	2		75,041
1939				48	189	29,386	43,124	616	19				73,382
1940					206	59,639	85,885	3,063	13	1			148,807
1941				299	1,052	23,536	39,193	1,615	46				65,741
1942					13	12,624	41,301	1,477	49				55,464
1943					9	4,525	33,613	1,697	1				39,845
1944			1		16	3,099	11,171	659	126				15,072
1945			10	51	521	1,507	6,903	498	10	1			9,501
1946				9	67	7,815	64,715	1,747	21	2			74,376
1947					5	59,378	108,175	3,564	15	1		1	171,139
1948						12,023	117,652	1,849	13	4			131,541
1949					151	9,013	41,619	655	6				51,444
1950						341	75,784	1,826	42				77,993
1951					25	81,045	87,104	1,214	40				169,428
1952			7	1	3	136,939	47,188	467	30	2	8		184,645
1953			57	27	663	45,711	186,933	1,774	50				235,215
1954			1		13	52,359	76,505	1,212	17				130,107
1955					79	21,923	214,860	866	11	9			237,748
1956					10	29,649	125,185	1,564	7	3			156,418
1957					21	38,616	43,938	323	14	3			82,915
1958					25	38,736	82,719	878	23	8			122,389
1959				2	153	10,155	75,325	906	14	5			86,560
1960					4	41,758	17,615	321	15				59,713
1961				3	22	7,960	9,059	56	9	2			17,111
1962				1	21	9,713	18,310	82	47	5			28,179
1963					492	25,010	34,275	216	304	17	5		60,319
1964				3	570	32,079	66,857	213	110	10	14		99,856
1965					457	21,860	31,776	744	285	3			55,125
1966				10	338	57,509	97,845	800	155	4			156,661
1967				18	38	36,091	107,558	344	106	3			144,158
1968				54	372	74,226	33,245	199	101	9	1		108,207
1969				5	165	24,238	34,970	120	124	13	1		59,636
1970				5	269	22,977	46,062	1,147	290	12	-		70,762
1971				0	70	14,789	72,203	313	69	2	1		87,447
1972					614	16,505	37,939	1,254	9	2			56,323
1973					17	29,314	29,308	337	3				58,979
Total			76	536	7,695	1,109,859	2,299,779	36,713	2,429	127	32	1	3,457,247
36-Year Average			2	15	214	30,829	63,883	1,020	67	4	1		96,035

TABLE 18

MONTHLY COUNT OF COHO SALMON

BONNEVILLE DAM - 1938-1973

Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total (Incl. Jacks)	Jacks
1938								3,070	10,995	972	141	7	15,185	
1939	3							1,811	12,226	310	15	18	14,383	
1940	3							1,451	10,212	213	33	5	11,917	
1941	2							1,317	16,061	369	160	2	17,911	
1942								1,193	11,062	147			12,402	
1943								762	1,676	89	20		2,547	
1944								1,052	3,021	103	29	2	4,207	
1945							2	239	533	15		1	790	
1946		10	4				22	228	3,609	1		24	3,898	
1947	12	2	1					217	10,928	10	3	1	11,174	
1948	1						11	158	3,893	10	3	5	4,081	
1949							17	270	703	5	8	1	1,004	
1950								1,570	8,545	36			10,151	
1951								197	4,773	225	6		5,201	
1952							10	2,581	5,131	22	24		7,768	
1953							1	7,094	5,890	22	11		13,018	
1954								668	3,319	74	1		4,062	
1955								443	3,188	94			3,725	
1956							7	1,158	4,879	83			6,127	
1957								1,564	3,046	63	2		4,675	
1958								341	3,220	99	13		3,673	
1959								122	2,551	22			2,695	
1960								538	2,502	224	4		3,268	
1961								277	2,867	306	6		3,456	
1962							1	1,116	13,091	543	37		14,788	
1963							4	1,071	8,664	2,724	195		12,658	
1964							23	3,776	46,535	3,069	199		53,602	
1965						2	21	5,911	61,335	8,566	197		76,032	
1966						46	874	4,921	59,457	6,361	232		71,891	34,919*
1967						33	715	3,814	87,254	4,560	112		96,488	47,893
1968						48	124	10,450	50,900	1,868	98		63,488	20,435
1969						38	443	4,671	41,176	2,998	52		49,378	25,216
1970						2	128	6,604	70,631	2,631	120		80,116	25,248
1971						0	57	7,292	58,235	9,753	652		75,989	22,172
1972							66	9,481	52,456	3,792	137		65,932	31,716
1973							636	12,656	33,736	6,715	866		54,609	25,849
Total	21	12	5			169	3,162	100,084	718,300	57,094	3,376	66	882,289	233,538
36-Year Average						5	88	2,780	19,953	1,586	94		24,508	29,192

* In 1966 Jacks were classified as those Coho's under 12" in length.
Beginning with 1967 Jacks were classified as under 22 inches.

** 8-Year Average

TABLE 19

MONTHLY COUNT OF CHUM SALMON

BONNEVILLE DAM - 1938-1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1938										1,245	799	73	2,117
1939	2								6	700	411	49	1,168
1940										860	835	34	1,729
1941										1,116	4,130	23	5,269
1942										700	1,149	16	1,865
1943										125	623	40	788
1944	1									191	666	96	954
1945	2								2	119	585	20	728
1946									1	306	808	63	1,178
1947								1		59	110	29	199
1948										192	2,966	478	3,636
1949										215	1,719	94	2,028
1950	1									298	770		1,069
1951										60	984		1,044
1952									2	163	1,340		1,505
1953										373	1,355		1,728
1954									6	193	1,370		1,569
1955										66	252		318
1956									2	135	547	9	693
1957									3	38	528		569
1958										147	308		455
1959									8	130	768		906
1960										291	735		1,026
1961										222	674		896
1962										188	825		1,013
1963									25	302	412		739
1964							3	1	15	176	437		632
1965									10	55	431		496
1966							1	4	28	114	725		872
1967									11	58	283		352
1968									11	10	58		79
1969									6	75	62		143
1970								6	64	75	64		209
1971									9	8	12		29
1972										1			1
1973									31	7	5		43
Total	6						4	12	240	9,013	27,746	1,024	38,045
36-Year Average							.1	.3	7	250	771		1,057

TABLE 20

MONTHLY COUNT OF STEELHEAD TROUT

BONNEVILLE DAM - 1938-1973

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	SPRING Jan 1-May 31	SUMMER Jun 1-Aug 25	FALL Aug 26-Dec 31
1938					6,622	2,382	19,455	29,231	46,618	2,264	339	92	107,003	6,622	42,684	57,697
1939	23	19	570	8,110	1,587	1,490	36,681	38,062	33,891	1,264	216	119	122,032	10,309	69,787	41,936
1940	5	96	1,688	4,125	998	4,489	61,188	46,071	64,377	1,786	292	59	185,174	6,912	99,812	78,450
1941	37	76	1,641	6,392	1,518	996	21,940	29,600	50,542	3,980	1,063	304	118,089	9,664	48,445	59,980
1942	4	37	256	3,642	4,159	1,588	19,905	41,973	77,076	2,412	566	182	151,800	8,098	57,121	86,581
1943	14	18	654	3,374	4,698	1,564	7,755	29,894	41,051	2,444	573	94	92,133	8,758	32,461	50,914
1944	50	157	1,019	6,142	2,224	1,169	21,868	24,508	35,907	6,129	1,119	226	100,518	9,592	41,993	48,933
1945	1,003	1,078	3,008	4,685	1,557	1,109	24,537	40,593	40,194	1,925	302	142	120,133	11,331	61,354	47,448
1946	64	551	3,040	9,839	5,482	3,265	20,600	58,466	38,399	2,070	262	769	142,807	18,976	74,446	49,385
1947	197	321	1,968	6,889	2,025	1,595	28,134	40,819	50,025	2,905	443	123	135,444	11,400	63,635	60,409
1948	154	119	1,631	4,473	1,170	1,895	33,191	53,621	40,609	1,742	381	76	139,062	7,547	79,906	51,609
1949	1		1,689	3,293	1,712	1,264	34,314	54,281	20,786	1,161	686	98	119,285	6,695	84,067	28,523
1950	13	8	1,156	4,537	1,667	691	25,142	53,904	24,226	1,932	811		114,087	7,381	72,810	33,896
1951			375	2,338	1,568	5,187	74,980	39,712	15,357	947	225		140,689	4,281	116,819	19,589
1952			278	1,248	1,751	8,202	118,110	79,735	48,293	2,735	638		260,990	3,277	186,735	70,978
1953			1,310	5,308	1,456	5,313	106,712	64,006	36,107	2,797	905		223,914	8,074	165,061	50,779
1954		6	679	5,511	1,571	6,115	59,443	65,234	34,941	2,209	551		176,260	7,767	118,318	50,175
1955			1,006	2,100	1,149	2,418	79,124	84,746	24,239	3,361	268		198,411	4,255	157,359	36,797
1956			1,409	2,718	1,582	3,122	48,306	47,148	23,343	2,846	635	7	131,116	5,709	93,983	31,424
1957			926	2,081	760	8,434	66,738	34,915	24,029	1,069	231		139,183	3,767	101,412	34,004
1958			495	651	1,457	5,645	53,734	22,827	44,478	1,859	291		131,437	2,603	76,930	51,904
1959			219	746	1,236	2,562	60,549	38,417	23,579	1,540	178		129,026	2,201	95,997	30,828
1960			412	904	1,090	4,314	44,026	33,571	28,058	1,090	211		113,676	2,406	74,735	36,535
1961			374	1,161	692	2,246	44,379	41,237	47,409	1,561	660		139,719	2,227	77,042	60,450
1962			381	1,957	1,491	3,737	49,789	40,177	64,084	1,798	611		164,025	3,829	83,161	77,035
1963			503	1,035	1,385	4,192	51,951	31,441	35,446	2,920	545		129,418	2,923	80,935	45,560
1964			490	1,609	769	1,940	50,640	26,892	32,406	1,954	552		117,252	2,868	73,267	41,117
1965			211	1,516	1,419	4,265	89,405	29,506	37,529	1,971	631		166,453	3,146	117,414	45,893
1966			658	2,682	2,389	13,051	57,975	25,779	37,733	2,657	737		143,661	5,729	91,816	46,116
1967			416	1,182	899	3,062	40,881	36,787	35,472	2,701	472		121,872	2,497	76,297	43,078
1968			340	861	1,315	3,664	29,773	41,006	27,865	1,645	505		106,974	2,516	65,907	38,551
1969			911	2,164	2,897	6,889	63,222	36,077	26,565	1,484	573		140,782	5,972	98,079	36,731
1970			244	1,267	1,331	4,208	30,866	46,307	27,073	1,909	305		113,510	2,842	75,264	35,404
1971			463	1,377	1,810	4,469	84,877	58,249	38,619	3,739	363		193,966	3,650	137,404	52,912
1972			492	2,562	2,137	3,444	59,933	48,223	65,523	3,432	140		185,886	5,191	102,036	78,659
1973			830	2,534	1,367	5,360	53,820	46,399	43,275	3,918	320		157,823	4,731	95,280	57,812
Total	1,565	2,486	31,742	111,013	68,940	135,336	1,773,943	1,559,414	1,385,124	84,156	17,600	2,291	5,173,610	215,746	3,189,772	1,768,092
36-Year Average			882	3,084	1,915	3,759	49,276	43,317	38,476	2,338	489		143,711	5,993	88,605	49,114

TABLE 21

MONTHLY COUNT OF SHAD AND PERCENT COUNTED OVER FISH LADDERS

BONNEVILLE DAM - 1938-1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Percent by Fish Ladders Brad. Is.	Percent by Fish Ladders Wash. Shore
1938						39	3,184	1,502	527	21			5,273	58.1	41.9
1939					14	1,539	3,065	157	28				4,803	27.9	72.1
1940					48	12,931	9,178	72	1				22,230	42.3	57.7
1941					5	2,417	16,010	197	12	16			18,657	57.9	42.1
1942					2	38	11,341	1,473	5				12,859	70.3	29.7
1943						18	2,545	265	20				2,848	87.0	13.0
1944						287	16,568	248					17,103	62.8	37.2
1945						2,801	90,773	948	4				94,526	77.2	22.8
1946						3,895	16,073	415					20,383	44.3	55.7
1947					8	5,645	20,280	105	3				26,041	69.4	30.6
1948						8	6,458	1,953	2	1			8,422	69.1	30.9
1949						2,647	19,609	322	1				22,579	54.9	45.1
1950							7,265	548	3				7,816	92.7	7.3
1951						1,269	6,792	277	15				8,353	63.2	36.8
1952						487	2,595	45	4				3,131	54.8	45.2
1953						53	14,856	1,502	19				16,430	60.5	39.5
1954						34	3,848	1,136	11				5,029	57.5	42.5
1955						21	4,411	1,358	18				5,808	64.6	35.4
1956					1	67	6,838	1,168	11				8,085	27.9	72.1
1957						1,695	11,039	422	1	2			13,159	64.2	35.8
1958						3,885	6,257	59					10,201	49.1	50.9
1959					3	32	6,315	369	1				6,720	54.9	45.1
1960						35,259	57,443	594	72				93,368	53.2	46.8
1961						18,952	245,471	1,236	33	5			265,697	67.1	32.9
1962						42,689	387,554	4,657	82	4	2		435,988	55.1	44.9
1963					70	77,961	307,466	4,044	217	14			389,772	65.7	34.3
1964					19	3,203	236,321	13,008	121	2			252,674	63.6	36.4
1965					1	33,815	570,432	12,844	194	35	2		617,323	57.7	42.3
1966					94	181,187	367,643	7,988	545	51	5		557,513	58.9	41.1
1967			1	1		6,673	212,681	2,944	152	8			222,460	65.3	34.7
1968					800	107,881	183,878	1,387	121	10	1		294,078	59.0	41.0
1969			2	5	158	233,018	81,159	2,846	163	7	-		317,358	58.0	42.0
1970				2	250	228,519	99,659	566	262	18	-		329,276	71.8	28.2
1971					30	34,345	154,215	951	55	1	-		189,597		
1972					38	16,689	192,608	5,301	88	1	-		214,725	52.6	47.4
1973					116,057	377,830	24,701	577	38	4	-		519,207	82.9	17.1
Total			3	8	117,598	1,438,829	3,406,531	73,484	2,829	200	10		5,039,492		
36-Year Average					3,267	39,967	94,626	2,041	78	5			139,985		

TABLE 21

TABLE 22

NUMBER AND PERCENT OF CHINOOK JACK SALMON 1/

BONNEVILLE DAM - 1938-1973

Year	Total Jack Salmon	Percent of Total	Total Chinook including Jack Salmon
1938	36,530	13.44	271,799
1939	63,793	22.29	286,189
1940	86,170	22.00	391,587
1941	46,884	10.16	461,443
1942	52,352	13.02	401,942
1943	19,286	6.16	313,123
1944	33,755	14.02	240,764
1945	37,036	12.45	297,478
1946	45,412	10.18	446,052
1947	25,582	5.32	480,377
1948	57,309	13.66	419,555
1949	14,573	5.25	277,697
1950	38,808	10.86	357,375
1951	24,060	7.25	331,788
1952	33,172	7.88	420,879
1953	32,215	9.69	332,479
1954	50,707	15.80	320,947
1955	35,071	9.75	359,853
1956	41,274	13.72	300,917
1957	25,553	6.33	403,286
1958	15,909	3.73	426,419
1959	31,594	9.16	345,028
1960	18,204	7.11	256,049
1961	29,736	10.55	281,980
1962	23,037	8.04	286,625
1963	48,114	17.27	278,560
1964	28,116	8.16	344,422
1965	64,597	20.33	317,957
1966	45,468	13.37	340,111
1967	73,581	20.09	366,237
1968	64,823	19.00	341,154
1969	96,295	18.97	507,543
1970	70,748	18.38	384,780
1971	76,962	18.95	405,702
1972	58,419	14.81	394,456
1973	79,799	20.02	398,635
Total	1,624,944		12,791,188
36-Year Average	45,137	12.70	355,311

1/ Chinook tallied as Jacks through 1963 included only those approximately 16 to 18 inches in length. Subsequent Jack tallies included all chinooks under 22 inches in length.

TABLE 23

YEARLY TOTALS OF SALMONID COUNTED OVER THE DALLES DAM

1957 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Chum	Pink	Total Salmonid
1957	312,678	129,361	90,201	6,793	75	4	539,112
1958	301,960	121,420	111,039	2,395	31	5	536,850
1959	207,461	156,090	86,259	2,709	25	9	452,553
1960	196,962	111,189	59,441	3,000	35	5	370,632
1961	201,335	134,572	16,689	2,139	-	4	354,739
1962	187,132	163,301	27,127	3,696	-	5	381,261
1963	180,969	118,957	56,931	3,716	23	3	360,599
1964	183,842	110,033	79,042	5,978	-	5	378,900
1965	195,049	141,052	44,279	17,468	1	3	397,852
1966	240,671	146,172	147,886	32,279		1	567,009
1967	280,112	121,614	120,589	32,015	1	4	554,335
1968	262,975	147,481	116,897	42,687	-	1	570,041
1969	314,258	112,529	37,226	17,054	-	1	481,068
1970	261,457	99,187	77,678	23,219	-	4	461,545
1971	250,528	151,348	76,103	29,061	-	3	507,043
1972	268,628	135,303	44,671	16,562	-	-	465,164
1973	280,945	100,082	52,303	11,152	-	1	444,473
Total	4,126,962	2,199,691	1,244,361	251,923	191	58	7,823,176
17-Year Average	242,762	129,393	73,198	14,819	11	3	460,187

TABLE 24

MONTHLY TOTALS OF SALMONID AND SHAD COUNTED OVER THE DALLES DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Chinook	-	-	-	94,334	15,040	19,548	19,181	23,341	101,771	7,730	-	-	280,945
Steelhead	-	-	-	723	326	1,981	29,067	25,437	38,017	4,531	-	-	100,082
Sockeye	-	-	-	-	8	19,510	32,674	105	6	-	-	-	52,303
Coho	-	-	-	-	-	-	-	793	9,443	916	-	-	11,152
Pink	-	-	-	-	-	-	-	-	1	-	-	-	1
Total Salmon		-	-	95,057	15,374	41,039	80,922	49,676	149,238	13,177	-	-	444,473
Shad	-	-	-	-	69,648	648,760	61,464	1,104	36	8	-	-	781,020

TABLE 24

TABLE 25
WATER TEMPERATURE AND STREAM FLOW DATA
THE DALLES - 1973

DATE	JANUARY			FEBRUARY			MARCH		
	WATER TEMP	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	39	113,000	5.9	37	157,700	2.8	39	153,000	-
2	40	155,600	5.0	36	185,100	1.7	39	134,700	-
3	41	165,100	4.8	36	134,600	2.0	39	121,500	2.6
4	40	181,500	2.3	36	89,300	2.0	39	106,100	2.5
5	40	174,600	1.5	37	218,500	1.8	39	174,700	2.5
6	40	134,300	0.9	37	143,200	1.6	40	162,900	-
7	39	130,900	0.9	37	168,200	1.5	40	173,700	-
8	39	206,900	1.4	37	173,600	1.5	41	169,100	2.5
9	39	192,600	1.4	37	177,900	1.5	41	167,600	3.0
10	39	164,100	1.4	37	128,300	-	41	125,200	3.5
11	38	169,800	1.5	37	115,500	-	41	109,400	3.5
12	38	140,900	1.5	37	126,600	-	42	190,100	3.3
13	38	99,000	1.3	37	122,700	-	42	130,400	3.0
14	38	123,300	1.3	37	145,500	-	43	143,900	3.0
15	38	153,300	1.3	37	167,100	1.8	43	147,900	2.8
16	37	154,100	1.4	37	162,900	2.1	43	168,900	2.6
17	37	148,600	1.6	37	131,400	2.0	43	100,000	3.5
18	37	170,500	1.4	37	92,700	2.1	43	104,600	2.5
19	37	165,300	1.8	37	151,800	2.1	43	159,500	2.5
20	36	134,600	2.1	38	142,300	2.1	43	150,700	2.5
21	36	139,300	2.8	38	156,400	2.1	43	138,200	2.5
22	36	173,000	2.5	38	138,000	-	43	152,900	2.8
23	36	143,200	2.5	38	145,000	-	43	151,600	2.8
24	37	171,500	2.5	38	123,700	-	43	124,400	3.1
25	36	136,800	2.3	38	97,800	-	44	119,300	3.9
26	36	152,700	2.5	39	142,200	-	44	163,300	3.6
27	37	151,100	2 5	39	113,400	-	44	181,000	2.8
28	37	138,900	2.5	39	123,100	-	44	182,600	3.5
29	37	178,200	2.5				44	201,900	3.2
30	37	158,000	2.5				45	155,800	-
31	36	122,200	2.5				45	100,900	-

MONTHLY FISH PASSAGE SUMMARY REPORT — THE DALLES PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 26 — APRIL 1973

TABLE 26

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	298	0	0	0	0	17	0	0	315	0	116,900	0		45
2	252	0	0	0	0	21	0	0	273	0	189,000	0		45
3	426	0	0	0	0	28	0	0	456	0	206,200	0	3.2	46
4	507	0	0	0	0	30	0	0	537	0	155,100	0		46
5	762	0	0	0	0	30	0	0	792	0	154,900	0		46
6	1,743	0	0	0	0	29	0	0	1,772	0	139,800	0		47
7	2,419	0	0	0	0	22	0	0	2,441	0	90,200	0		47
8	2,175	0	0	0	0	31	0	0	2,206	0	96,700	0		47
9	1,774	0	0	0	0	35	0	0	1,809	0	143,400	0		47
10	1,359	0	0	0	0	31	0	0	1,390	0	171,500	0	5.0	47
11	1,542	0	0	0	0	28	0	0	1,570	0	147,400	0	4.0	47
12	2,206	0	0	0	0	31	0	0	2,237	0	152,300	0	4.0	47
13	2,092	0	0	0	0	45	0	0	2,137	0	139,400	0	3.8	47
14	5,080	0	0	0	0	42	0	0	5,122	0	115,800	0	3.6	48
15	3,407	0	0	0	0	36	0	0	3,443	0	92,400	0	4.0	48
16	5,075	0	0	0	0	24	0	0	5,099	0	158,600	0	3.4	48
17	1,137	0	0	0	0	22	0	0	1,159	0	164,700	0	3.4	49
18	3,914	0	0	0	0	23	0	0	3,937	0	193,400	0	3.0	49
19	3,709	0	0	0	0	14	0	0	3,723	0	151,000	0	3.2	49
20	7,186	0	0	0	0	27	0	0	7,213	0	141,500	0	3.5	49
21	10,513	0	0	0	0	12	0	0	10,525	0	115,300	0	3.7	49
22	8,000	0	0	0	0	19	0	0	8,019	0	86,200	0	3.8	50
23	4,058	0	0	0	0	19	0	0	4,077	0	135,300	0	3.8	50
24	3,713	0	0	0	0	12	0	0	3,725	0	124,800	0	3.8	50
25	3,796	0	0	0	0	11	0	0	3,807	0	119,000	0	3.5	50
26	3,730	0	0	0	0	11	0	0	3,741	0	148,400	0	3.6	50
27	2,689	0	0	0	0	16	0	0	2,705	0	132,600	0	3.2	51
28	3,520	0	0	0	0	19	0	0	3,539	0	135,900	0	3.2	51
29	4,010	0	0	0	0	19	0	0	4,029	0	89,400	0	3.2	51
30	3,240	0	0	0	0	19	0	0	3,259	0	135,700	0	3.3	51
TOTALS	94,334	0	0	0	0	723	0	0	95,057	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — THE DALLES PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 27 — MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	2,586	0	0	0	0	12	0	0	2,600	0	130,200	0	3.0	52
2	2,127	0	0	0	0	14	0	0	2,141	0	147,700	0	3.0	52
3	2,003	0	0	0	0	14	0	0	2,017	0	143,900	0	3.0	52
4	844	0	0	0	0	13	0	0	857	0	161,000	0	3.0	53
5	918	0	0	0	0	20	0	0	938	0	121,700	0	3.0	53
6	763	0	0	0	0	8	0	0	771	0	115,000	0	2.5	54
7	276	0	0	0	0	14	0	0	290	1	161,700	0	2.5	54
8	413	0	0	0	0	8	0	0	421	0	140,300	0	2.6	54
9	320	0	0	0	0	7	0	0	327	0	170,700	0	2.6	54
10	379	0	0	0	0	6	0	0	385	1	154,500	0	2.5	54
11	325	0	0	0	0	8	0	0	333	5	135,900	0	2.7	54
12	361	0	0	0	0	12	0	0	373	15	130,700	0	2.8	55
13	292	0	0	0	1	7	0	0	300	81	115,000	0	2.8	56
14	352	0	0	0	0	10	0	0	362	156	158,000	0	2.7	57
15	247	0	0	0	2	9	0	0	258	361	138,000	0	2.7	57
16	226	0	0	0	1	13	0	0	240	439	140,800	0	2.6	58
17	119	0	0	0	0	12	0	0	131	871	160,300	0	2.6	58
18	143	0	0	0	0	7	0	0	150	904	174,900	0	2.6	58
19	156	0	0	0	2	8	0	0	166	1,742	167,000	0	2.6	58
20	190	0	0	0	0	9	0	0	199	928	149,500	0	2.6	58
21	140	0	0	0	0	5	0	0	145	1,680	156,700	0	2.7	59
22	123	0	0	0	0	9	0	0	132	3,475	155,200	0	2.6	59
23	122	0	0	0	0	12	0	0	134	4,495	153,500	0	2.4	60
24	149	0	0	0	0	4	0	0	153	4,658	140,500	0	2.4	60
25	144	0	0	0	1	10	0	0	155	1,695	161,000	0	2.4	60
26	138	0	0	0	0	18	0	0	156	2,183	139,000	0	2.6	60
27	194	0	0	0	0	9	0	0	203	7,480	135,000	0	2.5	60
28	201	0	0	0	1	13	0	0	215	6,728	125,900	0	3.0	59
29	217	0	0	0	0	10	0	0	227	8,171	153,300	0	3.0	60
30	254	0	0	0	0	13	0	0	267	15,864	153,300	0	2.5	60
31	316	0	0	0	0	12	0	0	328	7,715	155,500	0	3.0	61
TOTALS	15,040	0	0	0	8	326	0	0	15,374	69,648				

MONTHLY FISH PASSAGE SUMMARY REPORT — THE DALLES PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 28 — JUNE 1973

TABLE 28

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	364	0	0	0	0	22	0	0	386	6,484	163,600	0	3.0	60
2	693	0	0	0	0	16	0	0	709	7,872	118,900	0	3.0	59
3	657	0	0	0	1	16	0	0	674	10,444	134,800	0	3.0	59
4	0	359	0	0	0	19	0	0	378	13,389	189,400	0.	3.0	59
5	0	534	0	0	0	21	0	0	555	22,794	153,500	0	3.0	60
6	0	909	0	0	0	34	0	0	943	40,725	149,200	0	3.0	59
7	0	907	0	0	2	28	0	0	937	26,441	153,100	0	3.0	61
8	0	505	0	0	1	22	0	0	528	32,893	189,700	0	2.8	61
9	0	652	0	0	14	31	0	0	697	23,664	134,400	0	2.8	61
10	0	920	0	0	25	28	0	0	973	29,247	106,100	0	3.3	61
11	0	566	0	0	48	26	0	0	640	39,620	164,300	0	3.3	61
12	0	699	0	0	33	50	0	0	782	40,422	150,100	0	3.0	62
13	0	828	0	0	81	71	0	0	980	32,473	146,000	0	3.0	62
14	0	749	0	0	78	63	0	0	890	20,044	145,700	0	2.9	61
15	0	839	0	0	255	66	0	0	1,160	27,754	144,500	0	2.7	61
16	0	698	0	0	217	51	0	0	966	35,587	120,800	0	2.7	61
17	0	839	0	0	348	66	0	0	1,253	25,403	109,200	0	3.0	61
18	0	715	0	0	414	96	0	0	1,225	19,366	139,000	0	3.0	61
19	0	768	0	0	478	102	0	0	1,348	22,261	140,700	0	3.0	61
20	0	755	0	0	319	67	0	0	1,141	24,645	143,200	0	3.0	61
21	0	479	0	0	552	49	0	0	1,080	27,829	159,800	0	2.8	61
22	0	390	0	0	672	44	0	0	1,106	29,729	146,500	0	2.9	62
23	0	667	0	0	1,605	67	0	0	2,339	17,490	111,700	0	2.8	62
24	0	641	0	0	1,239	55	0	0	1,935	11,037	107,900	0	2.9	62
25	0	581	0	0	1,673	69	0	0	2,323	16,206	138,400	0	2.9	62
26	0	619	0	0	2,301	68	0	0	2,988	13,788	139,700	0	2.9	62
27	0	635	0	0	2,750	165	0	0	3,550	11,654	142,300	0	3.0	63
28	0	590	0	0	2,114	172	0	0	2,876	9,931	144,600	0	3.2	64
29	0	468	0	0	1,971	167	0	0	2,606	5,332	140,800	0	3.2	64
30	0	522	0	0	2,319	230	0	0	3,071	4,236	114,600	0	3.2	64
TOTALS	1,714	17,834	0	0	19,510	1,981	0	0	41,039	648,760				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S ARMY ENGINEER DISTRICT, PORTLAND

TABLE 29

THE DALLES PROJECT

JULY 1973

FISH COUNTS (INCLUDING JACKS)

RIVER CONDITIONS

DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	667	0	0	3,250	217	0	0	4,084	4,528	105,800	0	3.5	64
2	0	991	0	0	3,366	322	0	0	4,679	8,526	143,000	0	3.2	64
3	0	825	0	0	3,394	413	0	0	4,632	5,521	114,000	0	3.5	64
4	0	522	0	0	2,324	379	0	0	3,225	4,432	102,600	0	3.6	65
5	0	678	0	0	2,295	486	0	0	3,459	3,303	127,600	0	4.0	65
6	0	506	0	0	1,807	434	0	0	2,747	2,361	137,600	0	3.4	65
7	0	663	0	0	1,797	538	0	0	2,998	3,997	113,900	0	3.0	65
8	0	690	0	0	1,964	865	0	0	3,519	4,530	88,100	0	4.2	65
9	0	610	0	0	1,629	855	0	0	3,094	3,373	146,600	0	4.0	66
10	0	624	0	0	1,205	753	0	0	2,582	2,419	159,200	0	4.0	66
11	0	521	0	0	1,868	577	0	0	2,966	1,886	151,700	0	4.0	66
12	0	566	0	0	1,112	826	0	0	2,504	2,550	174,500	0	4.0	66
13	0	475	0	0	1,013	1,262	0	0	2,750	2,061	167,700	0	4.0	67
14	0	858	0	0	991	1,299	0	0	3,148	1,398	99,800	0	4.0	67
15	0	854	0	0	753	1,529	0	0	3,136	1,573	105,200	0	4.3	76
16	0	640	0	0	548	1,228	0	0	2,416	1,031	145,400	0	4.0	68
17	0	426	0	0	446	1,144	0	0	2,016	862	165,500	0	4.0	68
18	0	605	0	0	439	1,411	0	0	2,455	1,172	171,800	0	4.0	69
19	0	674	0	0	390	1,346	0	0	2,410	1,174	160,000	0	3.6	69
20	0	480	0	0	373	965	0	0	1,818	843	134,700	0	3.8	69
21	0	620	0	0	317	919	0	0	1,856	498	97,400	0	3.4	69
22	0	542	0	0	307	748	0	0	1,597	511	91,200	0	4.1	69
23	0	533	0	0	217	896	0	0	1,646	318	123,200	0	4.3	69
24	0	471	0	0	158	1,005	0	0	1,634	449	136,000	0	4.5	69
25	0	408	0	0	163	1,003	0	0	1,574	287	117,400	0	4.2	69
26	0	486	0	0	160	1,459	0	0	2,105	392	137,000	0	4.2	69
27	0	531	0	0	124	1,463	0	0	2,118	345	138,800	0	4.2	69
28	0	746	0	0	122	1,514	0	0	2,382	432	117,700	0	4.2	70
29	0	597	0	0	92	1,046	0	0	1,735	201	96,700	0	4.0	70
30	0	683	0	0	50	1,105	0	0	1,838	263	129,300	0	3.9	70
31	0	689	0	0	50	1,060	0	0	1,799	228	142,800	0	4.3	70
TOTALS	0	19,181	0	0	32,674	29,067	0	0	80,922	61,464				

TABLE 30

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 30

THE DALLES PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	519	0	0	32	972	0	0	1,523	292	154,500	0	5.3	70
2	0	657	0	0	24	1,299	0	0	1,980	139	163,700	0	5.3	70
3	0	583	0	2	8	1,050	0	0	1,643	140	177,600	0	4.8	70
4	0	0	804	0	3	1,119	0	0	1,926	111	104,000	0	5.3	70
5	0	0	572	0	3	688	0	0	1,263	43	105,100	0	5.0	70
6	0	0	525	0	2	788	0	0	1,315	63	139,900	0	5.0	70
7	0	0	442	13	11	647	0	0	1,113	50	142,500	0	5.2	70
8	0	0	461	1	9	663	0	0	1,134	41	110,800	0	5.2	70
9	0	0	557	1	1	734	0	0	1,293	49	140,600	0	4.8	70
10	0	0	619	0	4	784	0	0	1,407	22	133,900	0	4.8	70
11	0	0	760	0	1	1,022	0	0	1,783	15	99,500	0	5.0	71
12	0	0	766	2	4	1,120	0	0	1,892	19	98,000	0	5.0	71
13	0	0	525	0	2	545	0	0	1,072	12	122,700	0	5.4	71
14	0	0	650	1	0	480	0	0	1,131	17	103,400	0	5.5	71
15	0	0	594	0	0	547	0	0	1,141	14	119,800	0	5.5	71
16	0	0	630	0	0	455	0	0	1,085	2	118,600	0	4.8	71
17	0	0	606	0	0	569	0	0	1,175	15	150,900	0	4.6	70
18	0	0	657	2	0	582	0	0	1,241	7	97,100	0	4.5	70
19	0	0	518	0	1	493	0	0	1,012	6	104,600	0	5.9	70
20	0	0	677	2	0	459	0	0	1,138	10	120,300	0	5.4	70
21	0	0	575	4	0	400	0	0	979	7	106,600	0	5.0	70
22	0	0	1,001	19	0	660	0	0	1,680	9	125,700	0	5.0	70
23	0	0	1,018	20	0	791	0	0	1,829	2	120,100	0	5.5	70
24	0	0	1,030	36	0	966	0	0	2,032	6	140,900	0	3.5	68
25	0	0	1,045	59	0	1,110	0	0	2,214	3	103,400	0	4.5	58
26	0	0	1,330	57	0	1,095	0	0	2,482	1	75,600	0	4.5	68
27	0	0	720	107	0	987	0	0	1,814	1	113,500	0	4.1	68
28	0	0	1,141	97	0	1,001	0	0	2,239	2	127,400	0	4.8	67
29	0	0	906	81	0	1,114	0	0	2,101	1	134,100	0	4.5	67
30	0	0	962	137	0	1,158	0	0	2,257	2	140,700	0	4.6	67
31	0	0	1,491	152	0	1,139	0	0	2,782	3	136,100	0	4.7	67
TOTALS	0	1,759	21,582	793	105	25,437	0	0	49,676	1,104				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 31

THE DALLES PROJECT

SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	2,247	306	0	1,687	0	0	4,240	2	93,200	0	4.4	67
2	0	0	2,020	256	0	1,610	0	0	3,886	1	82,400	0	4.5	66
3	0	0	2,636	369	0	2,255	0	0	5,260	4	92,500	0	4.3	66
4	0	0	2,728	472	0	2,149	0	0	5,349	1	89,600	0	4.6	66
5	0	0	2,919	471	0	2,060	0	0	5,470	2	93,000	0	4.5	67
6	0	0	4,184	450	0	2,187	0	0	6,821	1	97,500	0	4.6	67
7	0	0	4,313	668	0	1,885	0	0	6,866	3	93,500	0	4.4	67
8	0	0	8,648	442	0	2,803	0	1	11,894	0	72,800	0	4.4	66
9	0	0	10,512	729	0	2,431	0	0	13,672	0	72,400	0	4.6	66
10	0	0	8,654	368	0	2,034	0	0	11,056	0	112,800	0	4.3	66
11	0	0	8,588	435	0	1,869	0	0	10,892	1	109,900	0	4.6	66
12	0	0	9,622	529	6	2,535	0	0	12,692	0	111,300	0	4.6	65
13	0	0	5,995	616	0	1,489	0	0	8,100	3	113,800	0	4.6	66
14	0	0	3,912	380	0	1,095	0	0	5,387	0	117,400	0	4.5	65
15	0	0	3,857	326	0	993	0	0	5,176	4	96,400	0	4.6	66
16	0	0	2,640	232	0	1,044	0	0	3,916	0	83,000	0	4.6	65
17	0	0	3,348	292	0	803	0	0	4,443	2	100,400	0	3.9	65
18	0	0	2,090	223	0	738	0	0	3,051	1	99,400	0	3.5	65
19	0	0	1,342	210	0	526	0	0	2,078	0	112,000	0	4.0	65
20	0	0	1,298	134	0	510	0	0	1,942	3	118,000	0	4.5	65
21	0	0	2,093	161	0	628	0	0	2,882	3	113,400	0	4.5	65
22	0	0	1,360	224	0	866	0	0	2,450	1	98,700	0	4.5	65
23	0	0	1,028	166	0	819	0	0	2,013	1	79,700	0	4.5	65
24	0	0	831	132	0	451	0	0	1,414	2	100,900	0	4.5	65
25	0	0	1,014	177	0	620	0	0	1,811	0	99,200	0	4.7	65
26	0	0	825	110	0	627	0	0	1,562	0	109,200	0	4.8	65
27	0	0	1,029	103	0	428	0	0	1,560	0	104,800	0	4.8	65
28	0	0	565	81	0	347	0	0	993	0	107,700	0	5.0	65
29	0	0	597	207	0	190	0	0	994	1	98,000	0	4.4	65
30	0	0	876	174	0	318	0	0	1,368	0	79,500	0	5.0	65
TOTALS	0	0	101,771	9,443	6	38,017	0	1	149,238	36				

MONTHLY FISH PASSAGE SUMMARY REPORT — THE DALLES PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 32 — OCTOBER 1973

TABLE 32

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	960	144	0	239	0	0	1,343	1	128,800	0	5.0	65
2	0	0	528	139	0	263	0	0	930	0	125,100	0	5.3	64
3	0	0	568	52	0	214	0	0	834	1	124,200	0	5.5	63
4	0	0	401	45	0	216	0	0	662	0	126,500	0	5.8	63
5	0	0	489	41	0	238	0	0	768	0	112,900	0	6.0	63
6	0	0	334	30	0	204	0	0	568	0	103,000	0	5.6	62
7	0	0	546	33	0	220	0	0	799	0	92,700	0	6.0	62
8	0	0	392	37	0	201	0	0	630	0	107,400	0	5.0	62
9	0	0	480	44	0	202	0	0	726	0	121,800	0	5.3	61
10	0	0	376	29	0	178	0	0	583	0	103,700	0	5.2	61
11	0	0	220	15	0	153	0	0	388	0	109,500	0	5.1	61
12	0	0	226	28	0	139	0	0	393	1	108,900	0	5.1	61
13	0	0	265	25	0	156	0	0	446	0	95,400	0	5.1	60
14	0	0	165	25	0	156	0	0	346	1	82,700	0	5.1	60
15	0	0	191	20	0	111	0	0	322	2	100,100	0	5.1	60
16	0	0	212	15	0	112	0	0	339	0	112,700	0		60
17	0	0	142	11	0	111	0	0	264	0	120,700	0	5.1	60
18	0	0	131	7	0	108	0	0	246	1	110,700	0		60
19	0	0	101	24	0	112	0	0	237	0	103,500	0	4.5	59
20	0	0	130	15	0	166	0	0	311	0	92,800	0	4.1	59
21	0	0	93	20	0	98	0	0	211	0	90,000	0	4.0	59
22	0	0	90	10	0	98	0	0	198	0	104,900	0	3.8	59
23	0	0	115	20	0	118	0	0	253	1	118,900	0	3.9	59
24	0	0	117	25	0	175	0	0	317	0	115,800	0	4.0	58
25	0	0	122	30	0	137	0	0	289	0	116,300	0	4.5	58
26	0	0	98	9	0	106	0	0	213	0	111,200	0	3.5	57
27	0	0	73	9	0	93	0	0	175	0	90,400	0	4.0	57
28	0	0	64	3	0	70	0	0	137	0	80,200	0	3.6	57
29	0	0	60	6	0	55	0	0	121	0	104,800	0	3.8	58
30	0	0	25	3	0	44	0	0	72	0	115,500	0	3.6	57
31	0	0	16	2	0	38	0	0	56	0	125,900	0	3.6	57
TOTALS	0	0	7,730	916	0	4,531	0	0	13,177	8				

END OF COUNTING SEASON

TABLE 33
WATER TEMPERATURE AND STREAM FLOW DATA
THE DALLES - 1973

DATE	NOVEMBER			DECEMBER		
	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP	STREAM FLOW	TURBIDITY
1	56	125,600	3.8	47	134,200	3.5
2	56	126,600	3.8	47	119,300	3.2
3	55	127,700	3.8	47	113,100	3.2
4	55	129,200	3.8	46	130,500	3.3
5	54	125,200	3.6	46	166,600	3.0
6	54	136,300	3.5	45	133,500	3.0
7	54	100,500	-	45	154,200	3.5
8	53	116,000	3.7	45	125,200	3.4
9	53	89,800	-	45	158,100	3.3
10	52	93,100	4.2	45	160,800	3.4
11	52	102,300	4.0	45	182,500	2.5
12	52	103,500	4.0	45	155,900	2.5
13	52	104,300	-	45	138,000	2.0
14	51	118,200	3.3	45	186,500	2.0
15	50	139,500	4.0	45	141,800	2.0
16	50	149,000	2.8	45	109,100	2.0
17	50	111,700	3.1	45	130,600	2.4
18	49	109,200	2.7	45	152,500	2.4
19	49	137,400	2.7	45	204,600	1.7
20	48	113,000	3.0	44	201,400	1.2
21	48	126,800	2.8	44	195,100	1.2
22	48	113,900	2.8	45	211,600	1.6
23	48	126,600	2.6	45	155,100	1.7
24	48	104,300	2.9	45	180,200	1.3
25	47	88,100	2.9	45	188,600	1.3
26	47	138,100	3.5	45	191,400	1.1
27	47	121,100	3.4	45	205,100	1.5
28	47	124,200	3.5	44	233,800	1.5
29	47	120,700	3.8	44	232,900	1.5
30	47	121,700	3.8	44	203,400	1.7
31				44	179,200	1.8

TABLE 34

PEAK DAYS OF FISH MIGRATION

THE DALLES DAM - 1957-1973

	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho		Chum		Shad	
Year	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1957	May 1	11,098	Jun 21	8,066	Sep 7	4,353	Jul 31	3,368	Jun 25	4,753	Sep 16	500	Nov 22	12	Jul 13	629
1958	May 10	5,407	Jun 19	4,134	Sep 17	9,694	Sep 15	5,409	Jul 9	6,346	Sep 4&5	174	Oct 31	4	Jun 26	336
1959	Apr 26	2,202	Jun 24	2,882	Sep 16	4,228	Jul 27	4,784	Jul 10	6,583	Sep 13	254	Nov 24	4	Jul 20	400
1960	May 4	4,414	Jun 16	4,827	Sep 7	3,336	Jul 28	3,144	Jun 25	3,661	Sep 3	258	Nov 3	4	Jul 3	4,934
1961	Apr 30	5,762	Jun 22	2,093	Sep 7	4,251	Sep 8	6,030	Jun 29	1,199	Sep 8	159	None		Jul 6	9,172
1962	Apr 28	4,104	Jun 17	3,005	Sep 3	3,463	Sep 10	5,731	Jul 8	1,511	Sep 16	227	None		Jul 15	14,039
1963	May 2	2,777	Jun 17	1,575	Sep 7	5,032	Jul 31	4,075	Jul 2	3,930	Sep 17	413	Oct 24	5	Jul 6	9,917
1964	Apr 26	3,351	Jun 29	2,390	Sep 7	4,134	Jul 28	3,235	Jul 7	6,571	Sep 14	310	None		Jul 13	13,859
1965	May 13	2,155	Jun 26	2,115	Sep 10	7,726	Jul 27	5,217	Jul 2	3,866	Sep 13	841	Oct 23	1	Jul 6	24,203
1966	Apr 18	5,607	Jul 1	2,004	Sep 18	3,275	Jul 19	3,242	Jul 1	8,436	Sep 4	1,743			Jul 12	15,926
1967	Apr 23	5,320	Jul 2	3,444	Sep 17	8,273	Sep 18	4,427	Jul 8	9,551	Sep 9	3,061	Sep 30	1	Jul 8	9,733
1968	Apr 24	5,129	Jun 30	2,054	Sep 10	5,299	Aug 31	4,634	Jun 28	10,962	Sep 7	2,895	None		Jul 6	14,582
1969	May 10	6,638	Jun 21	3,633	Sep 13	8,182	Sep 7	2,725	Jul 5	2,185	Sep 18	849	None		Jun 22	32,588
1970	Apr 18	4,557	Jun 27	1,618	Sep 13	9,231	Sep 11	4,087	Jul 4	3,859	Sep 13	1,746	None		Jun 27	20,903
1971	Apr 30	4,961	Jul 4	1,734	Sep 11	8,072	Sep 4	7,004	Jul 9	5,673	Sep 6	2,542	None		Jul 18	13,921
1972	Apr 25	7,510	Jul 8	1,879	Sep 11	7,910	Sep 18	5,473	Jul 7	2,554	Sep 16	1,367	None		Jul 7	18,477
1973	Apr 21	10,513	Jul 2	991	Sep 9	10,512	Sep 8	2,803	Jul 3	3,394	Sep 9	729	None		Jun 6	40,725
Total		91,505		48,444		107,971		75,388		85,034		18,068		31		244,344
17-Year Average		5,383		2,850		6,351		4,434		5,002		1,063		2		14,373

TABLE 35

MONTHLY COUNT OF CHINOOK SALMON

THE DALLES DAM - 1957-1973

Year	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total for Year	Spring Jan 1-Jun 3	Summer Jun 4-Aug 3	Fall Aug 4-Dec 31	Jacks
1957	-	-	22	42,161	59,410	86,096	35,643	28,828	56,753	3,564	201	-	312,678	109,723	116,661	86,294	37,374
1958	-	-	114	8,268	47,862	59,955	24,381	17,211	141,262	2,788	119	-	301,960	61,747	80,139	160,074	19,747
1959	-	-	8	16,771	32,634	27,799	42,817	20,142	65,229	2,022	39	-	207,461	50,874	71,362	85,225	39,857
1960	-	-	-	17,073	40,091	52,577	22,549	15,225	46,453	2,720	274	-	196,962	58,406	75,315	63,241	30,847
1961	-	-	-	43,822	35,059	24,478	24,596	16,866	53,371	3,143	-	-	201,335	79,183	50,824	71,328	35,409
1962	-	-	-	33,069	35,629	34,488	21,515	13,461	46,135	2,835	-	-	187,132	69,139	57,007	60,986	17,835
1963	-	-	-	19,119	33,207	25,063	20,414	21,865	57,248	4,053	-	-	180,969	52,937	47,333	80,699	54,749
1964	-	-	340	35,551	24,447	16,801	37,697	17,452	49,811	1,743	-	-	183,842	60,691	56,360	66,791	30,900
1965	-	-	190	17,870	24,930	17,900	31,072	25,119	74,904	3,064	-	-	195,049	43,617	50,527	100,905	67,552
1966	-	-	1,068	72,267	22,837	25,530	33,712	14,978	65,380	4,899	-	-	240,671	96,628	61,062	82,981	36,482
1967	-	-	-	48,744	22,817	24,718	45,346	23,927	107,427	7,133	-	-	280,112	71,976	72,582	135,554	98,817
1968	-	-	100	52,144	45,057	32,827	33,272	22,361	72,209	4,800	205	-	262,975	98,742	67,391	96,842	64,644
1969	-	-	65	19,025	80,162	33,432	27,750	29,330	118,890	5,604	-	-	314,258	100,482	61,978	151,798	96,244
1970	-	-		53,370	29,670	22,903	23,318	34,906	93,633	3,657	-	-	261,457	83,549	48,115	129,793	85,471
1971				28,227	44,181	22,011	29,655	16,190	103,370	6,894			250,528	73,655	51,847	125,026	75,329
1972				68,955	33,508	17,354	29,756	21,828	91,666	5,561			268,628	103,107	48,660	116,861	81,668
1973				94,334	15,040	19,548	19,181	23,341	101,771	7,730			280,945	111,088	38,774	131,083	72,088
Total			1,907	670,770	626,541	543,480	502,674	363,030	1,345,512	72,210	838		4,126,962	1,325,544	1,055,937	1,745,481	945,013
17-Year Average			112	39,457	36,855	31,969	29,569	21,355	79,148	4,248	49		242,762	77,973	62,114	102,675	55,589

TABLE 36

TABLE 36

MONTHLY COUNT OF SOCKEYE SALMON

THE DALLES DAM - 1957-1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1957					125	33,476	54,294	2,081	221	4			90,201
1958					29	28,854	80,324	1,583	248	1			111,039
1959					413	7,176	76,347	2,245	77	1			86,259
1960					2	36,907	22,228	297	7				59,441
1961					66	5,863	10,629	116	15				16,689
1962					55	8,333	18,545	180	14				27,127
1963					199	17,914	38,633	185	-				56,931
1964					23	9,984	68,205	758	72				79,042
1965					184	11,023	31,622	1,438	12				44,279
1966					65	36,539	109,167	2,106	9				147,886
1967					114	15,713	103,862	892	8				120,589
1968					5	77,878	38,542	462	10				116,897
1969					22	15,165	21,933	102	3	1			37,226
1970					1	18,309	56,903	2,387	75	3			77,678
1971						8,887	66,841	369	6				76,103
1972						9,276	34,924	466	5				44,671
1973					8	19,510	32,674	105	6				52,303
Total					1,311	360,807	865,673	15,772	788	10			1,244,361
17-Year Average					77	21,224	50,922	928	46	.6			73,198

TABLE 37

MONTHLY COUNT OF COHO SALMON

THE DALLES DAM - 1957-1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total*	Jacks
1957							220	605	5,615	342	11		6,793	
1958								96	2,132	161	6		2,395	
1959								46	2,428	234	1		2,709	
1960								475	2,288	227	10		3,000	
1961							4	5	1,898	232			2,139	
1962							5	258	3,194	239			3,696	
1963							2	361	2,931	422			3,716	
1964								506	4,723	749			5,978	
1965							7	200	13,064	4,197			17,468	
1966							225	3,850	25,476	2,728			32,279	
1967							192	494	27,860	3,469			32,015	20,456
1968							372	3,319	36,568	2,346	82		42,687	13,035
1969							412	970	13,179	2,493			17,054	11,218
1970							96	2,064	19,983	1,076			23,219	11,327
1971							1	1,589	26,066	1,405			29,061	11,174
1972							3	1,090	14,564	905			16,562	10,272
1973								793	9,443	916			11,152	5,256
Total							1,539	16,721	211,412	22,141	110		251,923	82,738
17-Year Average							91	984	12,436	1,302	6		14,819	11,820**

* Total including Jacks

** 7-Year average Coho "Jacks"

TABLE 37

TABLE 38

TABLE 38

MONTHLY COUNT OF STEELHEAD TROUT

THE DALLES DAM - 1957- 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Spring & Summer Run Total*	Sep	Oct	Nov	Dec	Total
1957	-	-	1,603	951	977	4,782	45,445	33,319	87,077	35,396	6,545	343	-	129,361
1958	-	-	122	274	1,898	4,906	20,384	11,442	39,026	75,036	6,846	512	-	121,420
1959	-	-	1	541	502	2,227	46,271	60,841	110,383	41,026	4,502	179	-	156,090
1960	-	-	-	289	557	2,591	28,218	32,667	64,322	42,447	4,021	399	-	111,189
1961	-	-	-	305	307	1,396	21,906	17,850	41,764	87,344	5,464	-	-	134,572
1962	-	-	-	528	252	1,068	36,609	31,507	69,964	87,463	5,874	-	-	163,301
1963	-	-	-	153	451	1,361	30,485	25,360	57,810	48,066	13,081	-	-	118,957
1964	-	-	50	369	127	493	36,773	31,742	69,554	38,197	2,282	-	-	110,033
1965	-	-	36	502	484	896	60,522	21,132	83,572	53,389	4,091	-	-	141,052
1966	-	25	788	933	600	3,816	52,975	26,382	85,519	53,721	6,932	-	-	146,172
1967	-	-	-	258	183	435	27,914	22,746	33,675	56,082	13,996	-	-	121,614
1968	-	-	23	691	344	973	20,974	58,866	81,871	57,666	7,456	-	-	147,481
1969	-	-	54	953	414	1,442	33,952	22,963	59,778	44,146	8,605	-	-	112,529
1970	-	-	-	337	172	733	15,905	32,752	49,899	44,823	4,465	-	-	99,187
1971	-	-	-	408	233	821	40,712	31,812	73,986	69,602	7,760	-	-	151,348
1972	-	-	-	463	159	604	35,569	30,631	67,426	63,748	4,129	-	-	135,303
1973	-	-	-	723	326	1,981	29,067	25,437	57,534	38,017	4,531	-	-	100,082
Total	-	25	2,677	8,678	7,986	30,525	583,681	517,449	1,151,021	936,169	110,580	1,921	-	2,199,691
17-Year Average	-	1	157	510	470	1,796	34,334	30,438	67,707	55,069	6,505	113	-	129,393

* Subtotal through 31 August

TABLE 39

YEARLY TOTALS OF SALMONID FISH COUNTED OVER JOHN DAY DAM

1968 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Total Salmonid
1968	233,654	121,256	87,847	38,233	480,990
1969	276,051	86,348	39,847	13,589	415,835
1970	222,506	82,440	78,133	19,543	402,622
1971	193,881	115,977	72,232	40,830	422,920
1972	225,631	141,628	51,793	17,533	436,585
1973	249,492	101,440	64,744	13,359	429,035
TOTAL	1,401,215	649,089	394,596	143,087	2,587,987
6-Year Average	233,536	108,181	65,766	23,848	431,331

TABLE 40

TABLE 40

MONTHLY TOTALS OF SALMONIDS AND SHAD COUNTED OVER JOHN DAY DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Chinook	–	–	–	67,467	27,091	18,972	15,067	16,995	89,913	13,987	–	–	249,492
Steelhead	–	–	–	8,019	3,546	785	12,134	15,608	46,566	14,782	–	–	101,440
Sockeye	–	–	–	–	2	21,283	42,588	864	6	1	–	–	64,744
Coho	–	–	–	–	–	–	–	788	11,350	1,221	–	–	13,359
Chum	–	–	–	–	–	–	–	1	–	–	–	–	1
Pink	–	–	–	–	–	–	2	2	4	–	–	–	8
Total Salmon	–	–	–	75,486	30,639	41,040	69,791	34,258	147,839	29,991	–	–	429,044
Shad	–	–	–	–	12,747	33,958	72,560	608	1	2	–	–	419,876

TABLE 41
WATER TEMPERATURE AND STREAM FLOW DATA
JOHN DAY - 1973

DATE	JANUARY			FEBRUARY			MARCH		
	WATER TEMP	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	40.6	104,600	4.0	35.9	160,300	1.1	38.0	151,400	4.2
2	40.8	143,700	3.9	35.5	176,600	1.5	38.0	125,200	3.5
3	40.8	170,100	4.8	35.8	140,600	1.1	38.5	125,200	4.2
4	40.8	184,600	0.9	36.1	84,800	1.4	38.9	106,300	4.0
5	40.2	160,500	1.0	36.2	126,300	1.5	39.5	173,600	3.5
6	39.6	132,300	1.5	36.4	146,100	1.5	39.7	163,800	3.2
7	39.3	126,700	1.5	36.5	166,400	1.5	40.6	168,400	3.0
8	39.0	202,000	1.5	36.6	176,600	1.5	40.9	165,900	3.4
9	38.7	185,000	1.7	36.5	170,600	1.8	41.1	160,900	3.0
10	38.1	164,900	1.5	36.4	124,300	1.8	41.3	116,000	3.5
11	37.5	168,200	1.3	36.2	112,400	1.8	41.6	118,800	2.8
12	36.8	135,800	1.3	35.1	123,300	2.2	41.9	181,400	3.5
13	36.4	81,200	1.2	35.4	124,800	2.0	42.2	134,200	2.9
14	36.4	123,800	1.8	36.5	141,400	2.0	42.1	139,800	2.4
15	36.1	145,100	1 6	36.6	168,200	2.0	42.2	148,400	2.3
16	35.8	147,100	1.6	36.7	156,300	2.2	42.7	159,300	2.6
17	35.6	144,300	1.4	36.6	125,200	1.8	42.4	105,500	2.8
18	35.7	170,300	1.8	36.6	89,800	2.5	42.3	91,500	3.5
19	35.6	152,400	1.7	36.7	148,200	2.0	42.8	166,300	2.1
20	35.3	133,300	1.8	36.8	150,100	3.1	42.4	155,400	2.4
21	35.3	136,900	2.3	36.9	153,900	2.2	42.5	129,100	2.8
22	35.4	157,800	2.2	37.1	133,800	3.8	42.7	152,500	2.0
23	35.5	148,900	2.1	37.2	137,500	2.6	42.9	156,100	2.6
24	35.9	157,900	2.0	37.4	123,900	3.0	42.9	113,900	3.0
25	36.2	134,400	1.7	37.6	92,500	3.0	44.5	111,800	2.7
26	36.3	157,500	1.5	37.8	143,000	4.4	43.5	174,200	3.0
27	36.2	154,400	1.7	37.7	122,400	3.2	43.3	174,300	2.8
28	36.3	133,200	2.0	37.9	117,600	4.0	43.6	179,300	2.7
29	36.0	160,400	1.8				44.1	213,200	2.6
30	35.9	160,400	1.8				44.1	152,200	3.2
31	35.9	128,400	2.0				44.4	87,100	2.9

MONTHLY FISH PASSAGE SUMMARY REPORT — JOHN DAY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 42 — APRIL 1973

TABLE 42

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	71	0	0	0	0	177	0	0	248	0	126,600	0	3.2	45
2	126	0	0	0	0	234	0	0	360	0	188,500	0	3.2	45
3	26	0	0	0	0	304	0	0	330	0	196,200	0	3.3	45
4	70	0	0	0	0	171	0	0	241	0	153,600	0	2.9	45
5	173	0	0	0	0	133	0	0	306	0	154,400	0	3.0	46
6	468	0	0	0	0	155	0	0	623	0	133,300	0	2.6	45
7	146	0	0	0	0	259	0	0	405	0	91,000	0	3.1	46
8	1,514	0	0	0	0	612	0	0	2,126	0	95,900	0	2.0	47
9	585	0	0	0	0	312	0	0	897	0	148,900	0	3.4	48
10	364	0	0	0	0	203	0	0	567	0	172,500	0	3.0	46
11	176	0	0	0	0	198	0	0	374	0	140,900	0	3.1	47
12	148	0	0	0	0	289	0	0	437	0	156,500	0	2.7	47
13	3,033	0	0	0	0	218	0	0	3,251	0	133,900	0	3.0	48
14	2,976	0	0	0	0	338	0	0	3,314	0	115,400	0	3.0	47
15	1,640	0	0	0	0	137	0	0	1,777	0	81,500	0	3.1	48
16	3,255	0	0	0	0	258	0	0	3,513	0	165,400	0	3.2	48
17	1,168	0	0	0	0	269	0	0	1,437	0	159,400	0	3.0	48
18	3,195	0	0	0	0	350	0	0	3,545	0	196,100	0	3.0	48
19	550	0	0	0	0	363	0	0	913	0	149,300	0	2.9	49
20	4,752	0	0	0	0	260	0	0	5,012	0	144,700	0	3.0	49
21	5,802	0	0	0	0	407	0	0	6,209	0	101,800	0	2.7	49
22	8,161	0	0	0	0	290	0	0	8,451	0	85,600	0	3.3	49
23	1,880	0	0	0	0	265	0	0	2,145	0	135,900	0	3.3	49
24	1,243	0	0	0	0	218	0	0	1,461	0	116,300	0	3.3	49
25	6,573	0	0	0	0	185	0	0	6,758	0	130,700	0	3.3	50
26	6,648	0	0	0	0	202	0	0	6,850	0	153,700	0	3.3	51
27	730	0	0	0	0	177	0	0	907	0	129,600	0	3.6	50
28	2,286	0	0	0	0	385	0	0	2,671	0	130,300	0	2.5	51
29	3,304	0	0	0	0	329	0	0	3,633	0	83,400	0	3.5	51
30	6,404	0	0	0	0	321	0	0	6,725	0	139,100	0	2.6	51
TOTALS	67,467	0	0	0	0	8,019	0	0	75,486	0				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 43

JOHN DAY PROJECT

MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	3,165	0	0	0	0	288	0	0	3,453	0	129,200	0	3.5	51
2	3,741	0	0	0	0	350	0	0	4,091	0	144,300	0	3.6	54
3	1,227	0	0	0	0	264	0	0	1,491	0	142,500	0	2.5	52
4	4,443	0	0	0	0	167	0	0	4,610	0	159,900	0	2.8	53
5	947	0	0	0	0	90	0	0	1,037	0	108,200	0	2.2	53
6	1,632	0	0	0	0	102	0	0	1,734	0	116,900	0	2.2	53
7	715	0	0	0	0	123	0	0	838	0	169,600	0	2.2	54
8	572	0	0	0	0	89	0	0	661	0	142,400	0	2.4	54
9	828	0	0	0	0	261	0	0	1,089	0	166,300	0	2.3	54
10	498	0	0	0	0	235	0	0	733	0	155,400	0	2.5	54
11	596	0	0	0	0	198	0	0	794	1	135,300	0	2.3	55
12	1,174	0	0	0	0	287	0	0	1,461	0	120,300	0	2.5	56
13	679	0	0	0	0	220	0	0	899	0	117,700	0	2.6	58
14	981	0	0	0	0	133	0	0	1,114	0	157,300	0	2.7	59
15	323	0	0	0	0	68	0	0	391	12	129,100	0	2.8	56
16	365	0	0	0	0	74	0	0	439	51	149,000	0	2.7	57
17	237	0	0	0	0	41	0	0	278	82	166,100	0	2.6	58
18	550	0	0	0	0	84	0	0	634	46	172,500	0	2.4	58
19	598	0	0	0	0	91	0	0	689	296	170,700	0	2.7	58
20	662	0	0	0	0	88	0	0	750	267	149,300	0	2.3	59
21	263	0	0	0	0	60	0	0	323	205	153,200	0	2.0	59
22	318	0	0	0	0	35	0	0	353	398	151,300	0	1.1	63
23	274	0	0	0	0	36	0	0	310	1,374	152,600	0	1.8	60
24	286	0	0	0	0	54	0	0	340	2,325	140,100	0	1.7	60
25	436	0	0	0	0	14	0	0	450	908	160,300	0	2.0	59
26	439	0	0	0	0	13	0	0	452	377	140,700	0	2.0	59
27	213	0	0	0	0	7	0	0	220	1,182	130,400	0	2.2	59
28	265	0	0	0	0	8	0	0	273	1,784	119,200	0	2.8	59
29	230	0	0	0	0	14	0	0	244	1,694	155,400	0	2.5	61
30	229	0	0	0	2	20	0	0	251	479	153,300	0	2.8	62
31	205	0	0	0	0	32	0	0	237	1,266	155,800	0	2.4	59
TOTALS	27,091	0	0	0	2	3,546	0	0	30,639	12,747				

MONTHLY FISH PASSAGE SUMMARY REPORT — JOHN DAY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 44 — JUNE 1973

TABLE 44

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	456	0	0	0	0	18	0	0	474	392	163,700	0	2.0	59
2	660	0	0	0	5	23	0	0	688	3,421	113,900	0	2.5	59
3	356	0	0	0	0	11	0	0	367	5,119	134,400	0	2.5	59
4	162	0	0	0	0	21	0	0	183	3,335	186,900	0	2.0	60
5	518	0	0	0	0	7	0	0	525	3,873	152,300	0	3.5	61
6	0	315	0	0	0	6	0	0	321	5,145	150,500	0	2.2	60
7	0	1,046	0	0	9	7	0	0	1,062	9,445	154,000	0	3.1	60
8	0	980	0	0	7	18	0	0	1,005	5,591	190,100	0	2.0	61
9	0	777	0	0	13	11	0	0	801	6,132	126,900	0	2.6	61
10	0	740	0	0	41	28	0	0	809	12,563	109,100	0	2.0	61
11	0	468	0	0	79	9	0	0	556	8,150	160,900	0	3.2	64
12	0	455	0	0	60	8	0	0	523	17,454	146,700	0	2.0	65
13	0	718	0	0	121	12	0	0	851	9,409	146,300	0	2.9	61
14	0	849	0	0	142	16	0	0	1,007	5,055	146,800	0	2.0	61
15	0	1,267	0	0	174	17	0	0	1,458	6,748	143,500	0	2.5	61
16	0	764	0	0	211	15	0	0	990	11,784	121,700	0	1.8	61
17	0	1,118	0	0	307	23	0	0	1,448	13,375	104,800	0	2.7	61
18	0	343	0	0	271	16	0	0	630	11,572	136,800	0	2.3	61
19	0	538	0	0	502	69	0	0	1,109	14,720	138,000	0	3.0	61
20	0	425	0	0	585	36	0	0	1,046	13,838	142,400	0	3.5	62
21	0	428	0	0	665	47	0	0	1,140	16,644	156,100	0	3.5	65
22	0	608	0	0	1,024	23	0	0	1,655	36,317	148,700	0	3.6	66
23	0	1,232	0	0	1,322	25	0	0	2,579	16,971	111,100	0	2.5	62
24	0	666	0	0	1,937	30	0	0	2,633	19,443	102,800	0	2.5	62
25	0	271	0	0	1,448	30	0	0	1,749	19,316	130,900	0	2.6	62
26	0	490	0	0	2,029	16	0	0	2,535	18,616	133,600	0	2.8	63
27	0	521	0	0	2,364	25	0	0	2,910	13,922	146,400	0	3.0	63
28	0	381	0	0	2,114	53	0	0	2,548	7,739	149,600	0	3.5	63
29	0	726	0	0	2,989	75	0	0	3,790	9,246	142,000	0	2.5	64
30	0	694	0	0	2,864	90	0	0	3,648	8,623	104,800	0	3.8	64
TOTALS	2,152	16,820	0	0	21,283	785	0	0	41,040	333,958				

CORRECTED TOTALS OF SHAD TO INCLUDE 65 SHAD ON 6 JUNE 1973.

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S ARMY ENGINEER DISTRICT, PORTLAND

TABLE 45

JOHN DAY PROJECT

JULY 1973

FISH COUNTS (INCLUDING JACKS)

RIVER CONDITIONS

DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	541	0	0	3,207	109	0	0	3,857	8,051	104,000	0	2.5	66
2	0	555	0	0	3,096	85	0	0	3,736	10,987	142,000	0	3.4	66
3	0	697	0	0	3,032	107	0	0	3,836	5,980	110,900	0	2.5	65
4	0	903	0	0	4,192	190	0	0	5,285	5,295	86,800	0	2.9	65
5	0	541	0	0	2,691	193	0	0	3,422	3,563	143,200	0	3.4	65
6	0	567	0	0	2,234	182	0	0	2,983	3,493	135,800	0	2.4	66
7	0	392	0	0	2,326	153	0	0	2,871	4,709	109,300	0	3.2	66
8	0	492	0	0	1,758	236	0	0	2,486	3,371	78,900	0	2.8	66
9	0	463	0	0	2,195	314	0	0	2,972	3,980	149,500	0	3.2	66
10	0	346	0	0	1,309	290	0	0	1,945	3,380	162,300	0	4.0	67
11	0	612	0	0	1,840	438	0	0	2,890	2,153	150,900	0	3.0	66
12	0	517	0	0	2,166	376	0	0	3,059	2,316	172,700	0	3.0	68
13	0	244	0	0	939	252	0	0	1,435	2,663	171,600	0	3.8	68
14	0	247	0	0	1,518	378	0	0	2,143	2,019	90,200	0	4.2	69
15	0	538	0	0	2,092	618	0	1	3,249	1,590	94,700	0	4.5	68
16	0	354	0	0	1,247	543	0	0	2,144	1,305	155,900	0	3.2	67
17	0	346	0	0	957	547	0	0	1,850	1,407	161,900	0	4.1	69
18	0	525	0	0	1,034	537	0	0	2,096	906	171,600	0	2.5	71
19	0	748	0	0	1,307	990	0	0	3,045	1,920	160,300	0	4.2	71
20	0	1,147	0	0	924	807	0	0	2,878	749	118,600	0	2.5	70
21	0	1,046	0	0	666	702	0	0	2,414	679	94,500	0	3.2	70
22	0	401	0	0	348	455	0	0	1,204	350	87,900	0	2.8	69
23	0	393	0	0	362	346	0	0	1,101	273	129,600	0	2.3	69
24	0	347	0	0	237	269	0	1	854	320	125,600	0	2.8	69
25	0	200	0	0	161	247	0	0	608	349	128,400	0	3.4	69
26	0	285	0	0	192	331	0	0	808	176	135,800	0	2.5	69
27	0	140	0	0	91	310	0	0	541	153	135,700	0	3.4	69
28	0	300	0	0	108	367	0	0	775	168	115,200	0	2.6	69
29	0	98	0	0	87	419	0	0	604	105	87,800	0	4.8	71
30	0	829	0	0	197	768	0	0	1,794	102	133,300	0	3.2	69
31	0	253	0	0	75	578	0	0	906	48	136,800	0	4.2	70
TOTALS	0	15,067	0	0	42,588	12,134	0	2	69,791	72,560				

TABLE 46

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 46

JOHN DAY PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	304	0	0	67	492	0	0	863	121	157,500	0	3.2	70
2	0	327	0	0	74	663	0	0	1,064	121	165,000	0	4.4	70
3	0	320	0	0	75	460	0	1	856	61	179,800	0	4.3	70
4	0	421	0	0	52	397	0	0	870	36	90,800	0	4.6	70
5	0	947	0	0	110	547	0	0	1,604	54	90,900	0	4.4	70
6	0	0	300	0	74	599	0	0	973	31	148,500	0	4.4	70
7	0	0	259	0	39	392	0	0	690	40	148,400	0	3.5	70
8	0	0	209	0	21	360	0	0	590	22	144,600	0	4.4	70
9	0	0	475	0	49	405	0	0	929	28	138,900	0	3.2	70
10	0	0	557	0	46	582	0	0	1,185	21	136,700	0	3.5	71
11	0	0	404	1	29	473	1	0	908	14	89,200	0	4.0	71
12	0	0	502	4	33	424	0	0	963	8	86,600	0	4.7	71
13	0	0	318	4	38	439	0	0	799	13	123,000	0	4.2	71
14	0	0	587	4	22	473	0	0	1,086	3	101,600	0	4.1	71
15	0	0	586	3	22	428	0	0	1,039	11	117,800	0	3.8	71
16	0	0	450	1	27	261	0	0	739	4	125,500	0	3.0	71
17	0	0	623	1	19	241	0	0	884	0	142,900	0	4.0	71
18	0	0	355	8	4	243	0	0	610	4	95,600	0	3.0	70
19	0	0	297	2	1	154	0	0	454	5	92,600	0	4.1	70
20	0	0	385	0	5	211	0	0	601	1	109,500	0	2.5	70
21	0	0	384	8	27	325	0	0	744	5	108,910	0	2.4	70
22	0	0	643	18	7	329	0	1	998	0	116,600	0	2.5	69
23	0	0	627	30	0	353	0	0	1,010	2	134,100	0	2.8	69
24	0	0	606	39	0	473	0	0	1,118	2	133,200	0	3.6	69
25	0	0	985	62	3	485	0	0	1,535	0	102,300	0	2.8	68
26	0	0	1,235	70	11	712	0	0	2,028	0	65,300	0	3.0	68
27	0	0	673	71	1	678	0	0	1,423	0	126,100	0	3.3	68
28	0	0	710	83	1	964	0	0	1,758	0	125,000	0	3.3	68
29	0	0	719	60	3	761	0	0	1,543	0	129,300	0	3.2	67
30	0	0	799	154	3	1,141	0	0	2,097	0	143,700	0	3.6	67
31	0	0	988	165	1	1,143	0	0	2,297	1	134,600	0	2.8	67
TOTALS	0	2,319	14,676	788	864	15,608	1	2	34,258	608				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 47

JOHN DAY PROJECT

SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS) .										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	0	1,403	348	0	1,483	0	0	3,234	0	89,800	0	3.6	66
2	0	0	1,678	336	0	1,551	0	0	3,565	0	70,900	0	3.0	66
3	0	0	1,848	293	0	1,553	0	0	3,694	0	90,200	0	4.8	68
4	0	0	2,219	307	0	1,909	0	0	4,435	0	82,800	0	4.3	66
5	0	0	2,653	492	0	2,181	0	0	5,326	0	96,100	0	4.2	68
6	0	0	2,348	456	0	2,067	0	0	4,871	0	99,500	0	3.5	66
7	0	0	3,083	736	0	2,374	0	0	6,193	0	89,100	0	3.8	66
8	0	0	3,954	526	1	2,061	0	0	6,542	0	63,500	0	4.0	66
9	0	0	5,163	784	0	2,015	0	0	7,962	0	70,600	0	3.8	66
10	0	0	6,577	508	4	2,580	0	0	9,669	0	120,000	0	4.3	67
11	0	0	8,551	1,047	0	2,653	0	2	12,253	0	108,400	0	4.0	68
12	0	0	9,500	783	0	3,148	0	0	13,431	0	98,500	0	4.3	67
13	0	0	6,301	1,117	0	2,324	0	2	9,744	1	109,600	0	3.8	67
14	0	0	4,305	481	0	1,840	0	0	6,626	0	120,200	0	3.5	67
15	0	0	6,081	571	0	1,969	0	0	8,621	0	84,400	0	3.5	66
16	0	0	4,576	432	0	1,662	0	0	6,670	0	74,000	0	4.2	66
17	0	0	1,791	178	0	1,168	0	0	3,137	0	101,500	0	3.5	66
18	0	0	2,140	250	0	870	0	0	3,260	0	97,400	0	3.8	66
19	0	0	1,382	173	0	666	0	0	2,221	0	119,600	0	3.5	66
20	0	0	2,173	182	0	755	0	0	3,110	0	110,300	0	4.0	66
21	0	0	1,343	144	0	981	0	0	2,468	0	111,400	0	3.5	66
22	0	0	1,352	147	0	913	0	0	2,412	0	90,900	0	3.6	66
23	0	0	2,098	109	0	1,107	0	0	3,314	0	77,300	0	3.8	66
24	0	0	1,732	126	0	1,163	0	0	3,021	0	86,900	0	3.2	66
25	0	0	1,064	132	0	1,110	0	0	2,306	0	98,500	0	4.1	66
26	0	0	1,450	198	0	1,472	0	0	3,120	0	115,400	0	3.0	65
27	0	0	964	110	0	1,015	0	0	2,089	0	101,200	0	3.2	66
28	0	0	889	114	1	774	0	0	1,778	0	105,600	0	4.0	65
29	0	0	747	216	0	703	0	0	1,666	0	90,800	0	4.9	65
30	0	0	548	54	0	499	0	0	1,101	0	78,800	0	4.4	65
TOTALS	0	0	89,913	11,350	6	46,566	0	4	147,839	1				

MONTHLY FISH PASSAGE SUMMARY REPORT — JOHN DAY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 48 — OCTOBER 1973

TABLE 48

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	922	78	0	903	0	0	1,903	0	123,600	0	4.0	64
2	0	0	1,193	134	0	772	0	0	2,099	0	123,900	0	4.4	64
3	0	0	1,153	131	0	738	0	0	2,022	0	125,700	0	4.0	63
4	0	0	733	75	0	635	0	0	1,443	0	120,900	0	3.8	63
5	0	0	770	44	0	646	0	0	1,460	0	108,800	0	4.2	63
6	0	0	717	31	0	635	0	0	1,383	0	98,600	0	4.7	63
7	0	0	731	55	0	644	0	0	1,430	0	79,600	0	4.6	62
8	0	0	682	59	0	537	0	0	1,278	0	108,600	0	4.6	62
9	0	0	590	40	0	494	0	0	1,124	0	111,100	0	3.0	62
10	0	0	579	47	1	442	0	0	1,069	0	111,900	0	4.2	61
11	0	0	250	12	0	242	0	0	504	0	113,400	0	3.0	61
12	0	0	491	48	0	760	0	0	1,299	0	107,100	0	4.1	60
13	0	0	632	54	0	594	0	0	1,280	0	87,700	0	3.4	60
14	0	0	505	52	0	559	0	0	1,116	0	73,100	0	3.2	60
15	0	0	437	40	0	647	0	0	1,124	0	97,500	0	3.5	60
16	0	0	245	16	0	271	0	0	532	0	115,900	0	3.2	60
17	0	0	175	13	0	319	0	0	507	0	114,200	0	3.4	59
18	0	0	256	18	0	261	0	0	535	0	110,200	0	3.0	59
19	0	0	186	22	0	226	0	0	434	0	106,200	0	3.4	59
20	0	0	164	18	0	169	0	0	351	0	87,900	0	3.4	59
21	0	0	172	20	0	267	0	0	459	0	77,200	0	3.4	59
22	0	0	191	33	0	488	0	0	712	0	108,500	0	3.5	59
23	0	0	253	36	0	547	0	0	836	0	120,500	0	4.1	58
24	0	0	287	26	0	583	0	0	896	0	117,000	0	3.4	58
25	0	0	240	30	0	487	0	0	757	0	109,200	0	3.8	58
26	0	0	290	19	0	465	0	0	774	2	114,100	0	3.4	58
27	0	0	331	14	0	432	0	0	777	0	81,640	0	3.5	58
28	0	0	231	10	0	211	0	0	452	0	71,000	0	3.5	58
29	0	0	308	23	0	388	0	0	719	0	103,100	0	4.1	57
30	0	0	162	19	0	192	0	0	373	0	118,400	0	3.4	57
31	0	0	111	4	0	228	0	0	343	0	126,500	0	3.9	57
TOTALS	0	0	13,987	1,221	1	14,782	0	0	29,991	2				

END OF COUNTING SEASON

TABLE 49
WATER TEMPERATURE AND STREAM FLOW DATA
JOHN DAY - 1973

DATE	NOVEMBER			DECEMBER		
	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	56.2	121,600	3.5	46.2	129,800	3.8
2	55.9	124,100	3.1	45.9	112,900	3.9
3	55.3	121,000	4.2	45.7	104,900	3.2
4	54.7	120,800	3.8	45.4	128,700	3.8
5	54.5	123,800	3.6	-	167,600	2.8
6	53.9	115,100	4.2	45.4	132,900	3.2
7	53.4	104,400	4.0	45.3	145,900	3.0
8	52.5	110,100	3.8	45.1	123,800	3.2
9	52.0	86,500	4.1	44.9	150,900	3.1
10	51.6	90,900	3.5	44.9	156,000	3.0
11	51.2	85,300	3.2	44.8	180,900	2.0
12	50.8	106,900	2.8	44.9	147,300	3.0
13	50.3	103,100	3.3	44.8	138,900	2.4
14	50.0	116,400	2.8	41.2	181,200	1.9
15	49.7	134,100	2.6	44.2	130,000	2.0
16	49.7	147,100	3.2	44.4	98,200	3.0
17	49.4	106,900	2.8	44.3	137,200	2.4
18	49.1	103,800	3.5	44.2	153,100	3.6
19	48.7	132,800	4.0	44.0	198,900	2.0
20	48.4	112,800	3.2	43.9	197,800	1.5
21	48.3	122,100	4.2	43.7	193,800	2.8
22	48.0	111,200	3.8	43.7	198,700	2.3
23	47.8	112,900	3.8	44.2	158,300	2.0
24	47.6	99,100	4.6	44.1	183,400	1.6
25	47.6	83,800	3.6	44.2	194,800	2.2
26	47.4	136,700	4.0	44.1	183,900	1.9
27	47.2	115,700	3.6	43.9	203,400	1.8
28	47.1	118,800	3.8	43.7	234,500	1.9
29	46.9	116,000	3.6	43.3	219,300	1.9
30	43.7	134,100	3.8	43.0	193,900	1.8
31				42.4	183,200	1.7

TABLE 50

TABLE 50

MONTHLY COUNT OF CHINOOK SALMON OVER JOHN DAY DAM

1968 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total for Year	Spring Apr 1* Jun 5	Summer Jun 6 Aug 5	Fall Aug 6 Oct 31*	Jacks
1968	-	-	-	29,973	46,272	30,702	42,212	16,726	62,709	4,851	209	-	233,654	77,482	75,494	80,678	67,284
1969	-	-	6	4,266	72,966	35,899	31,071	18,523	103,778	9,542	-	-	276,051	81,724	64,732	129,595	93,928
1970	-	-	-	35,750	35,248	20,439	21,542	24,784	80,969	3,774	-	-	222,506	72,555	43,093	106,858	74,090
1971	-	-	-	13,995	40,620	24,364	25,692	10,403	73,157	5,650	-	-	193,881	56,625	50,030	87,226	61,380
1972	-	-	-	28,535	41,882	15,833	27,484	14,208	90,181	7,508	-	-	225,631	71,569	44,542	109,520	82,646
1973				67,467	27,091	18,972	15,067	16,995	89,913	13,987			249,492	96,710	34,206	118,576	73,687
Total			6	179,986	264,079	146,209	163,068	101,639	500,707	45,312	209		1,401,215	456,665	312,097	632,453	453,015
6-Year Average			1	29,998	44,013	24,368	27,178	16,940	83,451	7,552	35		233,536	76,111	52,016	105,409	75,502

* 1973 only. Beginning and termination of counting for previous years may vary slightly.

TABLE 51

MONTHLY COUNT OF SOCKEYE SALMON JOHN DAY DAM

1968 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1968						42,175	44,942	690	32	7	1		87,847
1969						13,383	26,174	245	37	8			39,847
1970						18,029	58,176	1,909	19				78,133
1971						5,219	66,183	787	38	5			72,232
1972						6,762	43,704	1,257	68	2			51,793
1973					2	21,283	42,588	864	6	1			64,744
Total					2	106,851	281,767	5,752	200	23	1		394,596
6-Year Average						17,808	46,961	959	33	4			65,766

TABLE 52

TABLE 52

MONTHLY COUNT OF COHO SALMON JOHN DAY DAM

1968 - 1972

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1968							4	1,311	32,882	3,848	188	-	38,233
1969							25	308	9,879	3,377	-	-	13,589
1970							14	1,026	17,272	1,231	-	-	19,543
1971							-	944	36,401	3,485	-	-	40,830
1972							-	1,253	14,965	1,315	-	-	17,533
1973							-	788	11,350	1,221	-	-	13,359
Total							43	5,630	122,749	14,477	188	-	143,087
6-Year Average							7	938	20,458	2,413	31	-	23,848

TABLE 53

MONTHLY COUNT OF STEELHEAD TROUT JOHN DAY DAM

1968 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1968	-	-	-	3,939	2,659	151	6,094	26,824	68,791	11,405	1,393	-	121,256
1969	-	-	314	3,986	3,691	714	12,004	13,267	40,082	12,290	-	-	86,348
1970	-	-	-	1,987	1,279	253	7,373	19,412	46,036	6,100	-	-	82,440
1971	-	-	-	1,472	592	263	17,459	19,693	63,868	12,630	-	-	115,977
1972	-	-	-	1,523	1,966	356	17,656	20,502	78,138	21,487	-	-	141,628
1973	-	-	-	8,019	3,546	785	12,134	15,608	46,566	14,782	-	-	101,440
Total	-	-	314	20,926	13,733	2,522	72,720	115,306	343,481	78,694	1,393	-	649,089
6-Year Average	-	-	52	3,488	2,289	420	12,120	19,218	57,247	13,116	232	-	108,181

TABLE 54

PEAK DAYS OF MIGRATION

JOHN DAY DAM - 1968-1973

	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho	
Year	Date	Number of fish	Date	Number of fish	Date	Number of fish	Date	Number of fish	Date	Number of fish	Date	Number of fish
1968	Apr 28	11,114	Jul 19	2,694	Sep 8	4,532	Sep 8	3,735	Jun 29	7,677	Sep 4	2,256
1969	May 11	6,096	Jun 22	2,505	Sep 14	9,013	Sep 14	2,581	Jul 10	2,564	Sep 20	791
1970	May 4	5,485	Jul 11	1,897	Sep 13	6,728	Sep 12	4,159	Jul 6	4,119	Sep 11	1,319
1971	May 1	4,037	Jun 27	1,372	Sep 12	6,383	Sep 6	4,862	Jul 10	6,084	Sep 11	3,373
1972	Apr 27	6,484	Jun 29	1,805	Sep 12	6,280	Sep 19	6,149	Jul 9	3,049	Sep 19	1,381
1973	Apr 22	8,161	Jun 15	1,267	Sep 12	9,500	Sep 12	3,148	Jul 4	4,192	Sep 13	1,117
Total		41,377		11,540		42,436		24,634		27,685		10,237
6-Year Average		6,896		1,923		7,073		4,106		4,614		1,706

TABLE 55

YEARLY TOTALS OF SALMONID FISH COUNTED OVER McNARY DAM

1956 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Chum	Total Salmon
1954	126,555	75,059	108,181	950	1	310,746
1955	108,915	85,575	173,758	643		368,891
1956	114,342	42,554	102,145	683		259,724
1957	292,696	105,728	85,460	2,855		486,739
1958	226,092	87,890	102,397	1,350		417,729
1959	171,490	110,475	83,977	1,970		367,912
1960	176,767	96,895	55,372	1,580		330,614
1961	154,996	103,743	16,388	2,045		277,172
1962	152,756	163,181	29,372	3,195		348,504
1963	154,459	113,646	59,744	3,113		330,962
1964	167,934	100,742	83,931	3,317		355,924
1965	150,907	118,960	42,052	2,700		314,619
1966	223,141	145,130	173,028	8,525		549,824
1967	195,653	77,700	105,635	27,226		406,214
1968	200,488	112,522	101,007	39,518		453,535
1969	213,407	76,681	29,787	53,716		373,591
1970	168,892	69,759	59,636	36,399		334,686
1971	171,448	109,630	52,867	39,358		373,303
1972	168,821	93,820	26,422	45,635		334,698
1973	184,112	64,620	42,731	17,682		309,145
Total	3,523,871	1,954,310	1,533,890	292,460	1	7,304,532
20-Year Average	176,193	97,715	76,694	14,623		365,227

The dates for beginning and termination of counting have varied slightly.

TABLE 56

MONTHLY TOTALS OF SALMONID AND SHAD COUNTED OVER McNARY DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK	-	-	-	44,878	31,727	16,836	14,520	10,400	57,716	8,035	-	-	184,112
STEELHEAD	-	-	-	3,178	846	270	6,898	11,121	32,701	9,606	-	-	64,620
SOCKEYE	-	-	-	-	-	9,011	32,301	999	420	-	-	-	42,731
COHO	-	-	-	-	-	-	66	1,768	14,452	1,396	-	-	17,682
TOTAL SALMON	-	-	-	48,056	32,573	26,117	53,785	24,288	105,289	19,037	-	-	309,145
SHAD	-	-	-	-	2,856	227,141	87,322	1,057	-	1	-	-	318,377

TABLE 57

WATER TEMPERATURE AND STREAM FLOW DATA
McNARY - 1973

DATE	JANUARY			FEBRUARY			MARCH		
	WATER TEMP. *	STREAM FLOW	TURBIDITY *	WATER TEMP. *	STREAM FLOW	TURBIDITY*	WATER TEMP.*	STREAM FLOW	TURBIDITY *
1		114,000			155,700			126,600	
2		134,700			143,400			138,800	
3		149,400			140,600			146,700	
4		160,500			101,500			128,800	
5		181,300			138,800			141,900	
6		125,200			160,700			136,100	
7		157,000			172,200			140,100	
8		164,900			147,300			138,700	
9		154,500			117,800			142,800	
10		184,300			132,900			134,600	
11		148,800			101,400			129,800	
12		140,300			141,200			150,700	
13		118,200			166,400			156,600	
14		132,700			146,400			147,700	
15		121,400			151,800			139,700	
16		160,600			123,700			110,000	
17		139,600			98,400			132,200	
18		162,000			119,300			111,300	
19		136,200			150,600			142,600	
20		140,800			150,800			136,800	
21		132,900			141,800			159,200	
22		149,900			140,800			144,300	
23		127,100			126,600			149,800	
24		138,100			100,700			117,100	
25		155,900			103,300			93,400	
26		173,200			121,100			153,600	
27		152,600			134,900			148,900	
28		102,300			137,300			173,300	
29		165,400						158,600	
30		159,000						165,000	
31		141,500						149,100	

* Information not available.

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

TABLE 58

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 58 — APRIL 1973

DATE	FISH COUNTS (INCLUDING JACKS) SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	RIVER CONDITIONS DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	8	0	0	0	0	91	0	0	99	0	110,400	0	1.8	44
2	12	0	0	0	0	98	0	0	110	0	151,400	0	1.6	45
3	16	0	0	0	0	87	0	0	103	0	165,500	0	1.8	45
4	17	0	0	0	0	85	0	0	102	0	153,400	0	1.8	45
5	47	0	0	0	0	119	0	0	166	0	152,600	0	1.7	45
6	41	0	0	0	0	135	0	0	176	0	156,500	0	1.8	45
7	36	0	0	0	0	94	0	0	130	0	133,300	0	1.7	46
8	110	0	0	0	0	98	0	0	208	0	115,500	0	1.7	46
9	159	0	0	0	0	88	0	0	247	0	136,200	0	1.7	46
10	238	0	0	0	0	126	0	0	364	0	147,500	0	1.7	46
11	856	0	0	0	0	171	0	0	1,027	0	138,300	0	1.9	47
12	520	0	0	0	0	141	0	0	661	0	149,500	0	2.5	47
13	290	0	0	0	0	180	0	0	470	0	137,700	0	2.4	48
14	346	0	0	0	0	118	0	0	464	0	109,100	0	2.5	48
15	984	0	0	0	0	110	0	0	1,094	0	74,400	0	4.0	48
16	3,067	0	0	0	0	208	0	0	3,275	0	149,600	0	2.0	49
17	2,181	0	0	0	0	142	0	0	2,323	0	157,700	0	2.2	49
18	1,301	0	0	0	0	122	0	0	1,423	0	135,300	0	2.1	49
19	2,625	0	0	0	0	118	0	0	2,743	0	149,100	0	2.3	49
20	1,191	0	0	0	0	62	0	0	1,253	0	142,700	0	1.9	49
21	2,314	0	0	0	0	62	0	0	2,376	0	121,800	0	2.3	50
22	3,269	0	0	0	0	55	0	0	3,324	0	84,800	0	1.6	50
23	3,178	0	0	0	0	73	0	0	3,251	0	153,500	0	1.9	50
24	4,473	0	0	0	0	125	0	0	4,598	0	152,600	0	1.9	50
25	2,849	0	0	0	0	78	0	0	2,927	0	145,700	0	1.9	50
26	2,018	0	0	0	0	50	0	0	2,068	0	136,100	0	1.7	50
27	2,842	0	0	0	0	93	0	0	2,935	0	126,900	0	1.7	50
28	6,543	0	0	0	0	107	0	0	6,650	0	106,100	0	2.2	50
29	2,718	0	0	0	0	83	0	0	2,801	0	89,300	0	2.3	53
30	629	0	0	0	0	59	0	0	688	0	129,800	0	2.2	53
TOTALS	44,878	0	0	0	0	3,178	0	0	48,056	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 59 — MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	2,618	0	0	0	0	42	0	0	2,660	0	136,500	0	2.3	53
2	2,087	0	0	0	0	32	0	0	2,119	0	130,900	0	2.2	53
3	4,948	0	0	0	0	52	0	0	5,000	0	127,600	0	2.3	53
4	4,113	0	0	0	0	59	0	0	4,172	0	124,300	0	2.4	53
5	1,859	0	0	0	0	68	0	0	1,927	0	115,000	0	3.0	53
6	2,890	0	0	0	0	42	0	0	2,932	0	112,900	0	3.0	53
7	2,073	0	0	0	0	90	0	0	2,163	0	125,900	0	2.3	53
8	1,101	0	0	0	0	33	0	0	1,134	0	142,000	0	2.0	54
9	997	0	0	0	0	43	0	0	1,040	0	144,900	0	2.6	54
10	527	0	0	0	0	27	0	0	554	0	150,200	0	1.9	54
11	570	0	0	0	0	28	0	0	598	0	137,800	0	2.0	54
12	617	0	0	0	0	22	0	0	639	0	114,300	0	1.9	54
13	455	0	0	0	0	14	0	0	469	0	120,400	0	2.1	54
14	632	0	0	0	0	14	0	0	646	0	130,200	0	2.3	55
15	768	0	0	0	0	39	0	0	807	0	154,100	0	2.3	56
16	656	0	0	0	0	22	0	0	678	0	148,000	0	2.6	57
17	565	0	0	0	0	29	0	0	594	0	153,200	0	2.5	57
18	340	0	0	0	0	16	0	0	356	0	163,000	0	2.8	57
19	345	0	0	0	0	21	0	0	366	30	179,100	0	2.9	57
20	352	0	0	0	0	27	0	0	379	8	144,100	0	2.5	57
21	327	0	0	0	0	23	0	0	350	34	159,900	0	2.7	58
22	438	0	0	0	0	14	0	0	452	51	167,000	0	2.5	59
23	288	0	0	0	0	9	0	0	297	58	161,600	0	2.4	60
24	250	0	0	0	0	6	0	0	256	66	152,300	0	2.1	60
25	265	0	0	0	0	23	0	0	288	79	186,500	0	1.9	60
26	285	0	0	0	0	5	0	0	290	132	165,100	0	2.4	60
27	383	0	0	0	0	11	0	0	394	263	117,600	0	2.5	60
28	391	0	0	0	0	6	0	0	397	389	105,300	0	2.3	60
29	164	0	0	0	0	12	0	0	176	602	123,700	0	2.0	60
30	193	0	0	0	0	6	0	0	199	625	153,600	0	2.1	60
31	230	0	0	0	0	11	0	0	241	519	133,500	0	2.3	60
TOTALS	31,727	0	0	0	0	846	0	0	32,573	2,856				

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 60 — JUNE 1973

TABLE 60

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	151	0	0	0	0	5	0	0	156	452	154,700	0	2.3	60
2	132	0	0	0	0	0	0	0	132	337	152,300	0	2.5	60
3	162	0	0	0	0	3	0	0	165	746	167,900	0	2.5	60
4	430	0	0	0	0	0	0	0	430	1,585	150,600	0	2.5	60
5	476	0	0	0	0	0	0	0	476	3,813	160,900	0	2.1	60
6	276	0	0	0	0	1	0	0	277	2,122	151,300	0	2.8	60
7	315	0	0	0	0	0	0	0	315	1,267	164,300	0	2.6	60
8	500	0	0	0	0	1	0	0	501	3,254	144,600	0	2.6	60
9	0	698	0	0	0	6	0	0	704	4,198	113,800	0	2.1	60
10	0	920	0	0	0	2	0	0	922	5,507	113,700	0	2.0	60
11	0	627	0	0	2	6	0	0	635	5,313	141,300	0	2.4	60
12	0	440	0	0	2	0	0	0	442	5,462	155,800	0	2.2	60
13	0	495	0	0	0	7	0	0	502	5,169	164,300	0	2.0	60
14	0	498	0	0	0	1	0	0	499	6,083	152,000	0	2.1	60
15	0	631	0	0	56	0	0	0	687	3,840	120,300	0	2.1	60
16	0	796	0	0	35	15	0	0	846	5,671	134,700	0	2.0	60
17	0	1,684	0	0	93	11	0	0	1,788	3,237	104,200	0	2.2	61
18	0	697	0	0	172	15	0	0	884	5,658	137,800	0	1.9	61
19	0	971	0	0	170	19	0	0	1,160	15,339	122,100	0	2.2	61
20	0	506	0	0	214	20	0	0	740	11,340	158,900	0	2.3	61
21	0	622	0	0	291	14	0	0	927	13,628	135,600	0	2.7	61
22	0	388	0	0	221	5	0	0	614	13,033	138,200	0	2.9	61
23	0	498	0	0	429	21	0	0	948	6,655	107,000	0	2.6	61
24	0	411	0	0	371	6	0	0	788	20,980	109,300	0	2.3	61
25	0	743	0	0	803	17	0	0	1,563	18,378	144,800	0	2.7	62
26	0	640	0	0	1,047	22	0	0	1,709	16,577	154,300	0	2.9	62
27	0	428	0	0	942	10	0	0	1,380	17,409	140,000	0	2.7	63
28	0	468	0	0	1,002	21	0	0	1,491	16,026	132,200	0	2.9	64
29	0	639	0	0	1,515	20	0	0	2,174	9,064	138,100	0	2.8	64
30	0	594	0	0	1,646	22	0	0	2,262	4,998	121,400	0	3.1	64
TOTALS	2,442	14,394	0	0	9,011	270	0	0	26,117	227,141				

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 61 — JULY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	644	0	0	2,241	54	0	0	2,939	6,467	100,700	0	2.4	64
2	0	646	0	0	1,835	32	0	0	2,483	11,100	133,000	0	2.4	64
3	0	513	0	0	1,505	52	0	0	2,070	7,097	147,500	0	2.4	64
4	0	815	0	7	1,824	57	0	0	2,703	6,098	99,600	0	2.5	64
5	0	618	0	4	1,811	76	0	0	2,509	5,544	132,200	0	2.4	64
6	0	927	0	12	3,059	141	0	0	4,139	5,141	138,800	0	2.7	64
7	0	624	0	6	1,933	92	0	0	2,655	6,453	124,500	0	2.1	64
8	0	787	0	2	1,717	128	0	0	2,634	5,366	66,900	0	3.2	64
9	0	404	0	2	1,830	84	0	0	2,320	5,282	161,300	0	2.8	64
10	0	538	0	0	1,582	131	0	0	2,251	4,808	155,200	0	3.7	64
11	0	527	0	0	1,790	167	0	0	2,484	3,422	159,600	0	2.8	64
12	0	548	0	0	1,121	250	0	0	1,919	3,423	142,700	0	3.2	64
13	0	368	0	0	1,059	121	0	0	1,548	2,510	125,200	0	2.6	64
14	0	410	0	5	1,267	129	0	0	1,811	2,484	103,700	0	2.9	65
15	0	271	0	0	714	160	0	0	1,145	1,494	101,300	0	3.6	66
16	0	197	0	0	602	128	0	0	927	1,818	142,100	0	3.1	66
17	0	341	0	3	967	211	0	0	1,522	1,742	155,800	0	3.4	66
18	0	252	0	6	758	243	0	0	1,259	1,396	150,700	0	3.4	66
19	0	247	0	6	579	244	0	0	1,076	980	153,100	0	3.5	66
20	0	621	0	0	850	342	0	0	1,813	894	112,000	0	3.1	66
21	0	726	0	1	812	629	0	0	2,168	1,042	121,700	0	3.1	67
22	0	1,008	0	0	733	814	0	0	2,555	469	97,300	0	3.0	68
23	0	625	0	0	502	631	0	0	1,758	390	167,000	0	2.3	68
24	0	370	0	0	224	372	0	0	966	198	158,000	0	3.0	68
25	0	241	0	0	301	388	0	0	930	413	167,300	0	2.9	68
26	0	316	0	0	166	222	0	0	704	149	151,300	0	3.0	68
27	0	248	0	2	145	162	0	0	557	196	134,100	0	2.3	69
28	0	230	0	2	160	155	0	0	547	207	118,100	0	3.3	68
29	0	206	0	0	80	190	0	0	476	296	71,900	0	3.4	68
30	0	80	0	2	50	123	0	0	255	221	127,300	0	3.8	68
31	0	172	0	6	114	370	0	0	662	222	148,000	0	3.2	69
TOTALS	0	14,520	0	66	32,301	6,898	0	0	53,785	87,322				

TABLE 62

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 62

MCNARY PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	459	0	18	136	560	0	0	1,173	156	156,800	0	4.0	69
2	0	363	0	8	109	586	0	0	1,066	203	148,500	0	3.2	70
3	0	285	0	1	62	400	0	0	748	188	118,800	0	3.7	70
4	0	303	0	15	123	500	0	0	941	125	103,200	0	3.7	70
5	0	260	0	0	61	431	0	0	752	123	94,900	0	3.7	70
6	0	275	0	20	71	392	0	0	758	140	139,600	0	2.9	70
7	0	664	0	8	44	306	0	0	1,022	50	159,400	0	3.2	71
8	0	289	0	12	61	391	0	0	753	16	154,100	0	3.7	71
9	0	0	261	8	33	333	0	0	635	7	131,700	0	3.7	71
10	0	0	250	14	28	372	0	0	664	22	143,800	0	3.2	71
11	0	0	412	21	24	363	0	0	820	11	138,400	0	3.9	71
12	0	0	411	26	11	386	0	0	834	7	78,400	0	4.0	71
13	0	0	194	7	9	218	0	0	428	5	115,300	0	4.0	71
14	0	0	231	20	15	251	0	0	517	0	149,300	0	3.6	70
15	0	0	238	17	19	289	0	0	563	0	128,100	0	3.8	70
16	0	0	382	19	29	441	0	0	871	0	138,300	0	3.9	70
17	0	0	475	27	9	425	0	0	936	4	115,500	0	3.1	70
18	0	0	289	19	11	265	0	0	584	0	89,900	0	3.0	70
19	0	0	461	82	19	221	0	0	783	0	64,900	0	3.9	70
20	0	0	199	30	12	122	0	0	363	0	112,100	0	3.5	70
21	0	0	236	49	21	252	0	0	558	0	126,900	0	3.2	70
22	0	0	254	16	11	227	0	0	508	0	144,100	0	3.0	70
23	0	0	218	30	8	225	0	0	481	0	141,700	0	3.3	70
24	0	0	247	32	1	228	0	0	508	0	116,500	0	2.8	70
25	0	0	356	103	0	167	0	0	626	0	80,000	0	2.7	69
26	0	0	233	87	3	276	0	0	599	0	62,300	0	2.9	68
27	0	0	325	175	5	352	0	0	857	0	87,200	0	2.7	68
28	0	0	511	237	15	446	0	0	1,209	0	134,300	0	2.7	68
29	0	0	539	201	15	529	0	0	1,284	0	119,500	0	2.6	68
30	0	0	329	225	16	497	0	0	1,067	0	129,400	0	2.6	68
31	0	0	451	241	18	670	0	0	1,380	0	139,600	0	2.8	68
TOTALS	0	2,898	7,502	1,768	999	11,121	0	0	24,288	1,057				

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 63 — SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	521	175	3	578	0	0	1,277	0	99,200	0	3.0	68
2	0	0	500	250	9	648	0	0	1,407	0	55,100	0	3.7	67
3	0	0	444	168	8	453	0	0	1,073	0	59,900	0	4.0	67
4	0	0	484	278	8	143	0	0	913	0	95,600	0	4.0	66
5	0	0	1,007	340	11	605	0	0	1,963	0	114,100	0	3.9	66
6	0	0	837	596	0	926	0	0	2,359	0	130,300	0	3.8	66
7	0	0	1,368	693	12	1,448	0	0	3,521	0	127,900	0	2.4	66
8	0	0	1,653	782	36	1,643	0	0	4,114	0	64,800	0	3.0	66
9	0	0	1,257	511	9	1,029	0	0	2,806	0	74,000	0	2.6	66
10	0	0	1,682	845	41	1,120	0	0	3,688	0	128,600	0	2.9	66
11	0	0	3,053	607	106	1,592	0	0	5,358	0	108,100	0	3.2	67
12	0	0	5,237	855	56	2,059	0	0	8,207	0	103,100	0	3.8	68
13	0	0	6,570	631	8	2,970	0	0	10,179	0	103,900	0	3.0	67
14	0	0	4,827	794	15	2,366	0	0	8,002	0	120,100	0	3.3	67
15	0	0	6,122	1,474	21	2,463	0	0	10,080	0	74,600	0	3.0	67
16	0	0	3,384	553	16	1,690	0	0	5,643	0	75,600	0	2.9	67
17	0	0	2,965	642	15	1,431	0	0	5,053	0	101,900	0	2.3	67
18	0	0	4,105	864	17	1,422	0	0	6,408	0	108,700	0	2.9	67
19	0	0	1,733	489	0	1,035	0	0	3,257	0	116,400	0	2.5	67
20	0	0	1,038	430	12	707	0	0	2,187	0	104,900	0	2.5	67.0
21	0	0	1,047	321	1	675	0	0	2,044	0	107,300	0	3.1	67.0
22	0	0	1,666	337	16	863	0	0	2,882	0	88,400	0	2.9	67.0
23	0	0	979	319	0	698	0	0	1,996	0	63,100	0	2.7	66.0
24	0	0	796	228	0	557	0	0	1,581	0	107,200	0	2.8	66.0
25	0	0	761	262	0	615	0	0	1,638	0	104,600	0	3.1	65
26	0	0	1,040	275	0	666	0	0	1,981	0	115,800	0	2.9	65.0
27	0	0	684	214	0	726	0	0	1,624	0	97,800	0	3.0	65.0
28	0	0	686	121	0	438	0	0	1,245	0	100,400	0	3.0	65.0
29	0	0	675	135	0	495	0	0	1,355	0	95,800	0	3.0	65.0
30	0	0	595	213	0	640	0	0	1,448	0	79,500	0	3.5	64.0
TOTALS	0	0	57,716	14,452	420	32,701	0	0	105,289	0				

TABLE 63

MONTHLY FISH PASSAGE SUMMARY REPORT — MCNARY PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 64 — OCTOBER 1973

TABLE 64

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	607	199	0	657	0	0	1,463	0	110,800	0	2.8	64.0
2	0	0	405	126	0	599	0	0	1,130	0	125,500	0	3.0	63.0
3	0	0	311	80	0	470	0	0	861	0	123,600	0	2.8	63.0
4	0	0	379	96	0	364	0	0	839	1	117,100	0	2.8	63.0
5	0	0	446	132	0	422	0	0	1,000	0	114,400	0	3.0	63.0
6	0	0	520	85	0	360	0	0	965	0	98,600	0	2.8	63.0
7	0	0	336	66	0	340	0	0	742	0	75,200	0	2.8	63.0
8	0	0	360	28	0	292	0	0	680	0	88,900	0	3.0	62.0
9	0	0	351	36	0	260	0	0	647	0	101,300	0	2.8	61.0
10	0	0	468	47	0	437	0	0	952	0	124,400	0	2.8	61.0
11	0	0	262	64	0	358	0	0	684	0	106,600	0	3.4	61.0
12	0	0	475	53	0	576	0	0	1,104	0	116,700	0	3.1	61.0
13	0	0	220	32	0	430	0	0	682	0	79,800	0	3.0	61.0
14	0	0	164	30	0	319	0	0	513	0	63,800	0	3.1	60.0
15	0	0	270	45	0	328	0	0	643	0	99,900	0	3.3	60.0
16	0	0	274	40	0	308	0	0	622	0	124,900	0	3.2	60.0
17	0	0	212	36	0	309	0	0	557	0	104,300	0	2.8	60.0
18	0	0	239	25	0	244	0	0	508	0	116,900	0	2.9	60.0
19	0	0	185	32	0	212	0	0	429	0	100,000	0	3.0	60.0
20	0	0	146	22	0	235	0	0	403	0	88,600	0	3.1	60.0
21	0	0	141	21	0	168	0	0	330	0	79,100	0	3.8	60.0
22	0	0	149	20	0	210	0	0	379	0	98,800	0	3.1	59.0
23	0	0	93	10	0	177	0	0	280	0	116,200	0	2.3	59.0
24	0	0	135	25	0	139	0	0	299	0	101,300	0	3.2	59
25	0	0	147	2	0	198	0	0	347	0	99,300	0	2.9	59.0
26	0	0	142	4	0	248	0	0	394	0	99,000	0	2.9	59.0
27	0	0	109	5	0	222	0	0	336	0	86,700	0	2.8	59.0
28	0	0	92	3	0	213	0	0	308	0	68,700	0	2.8	58.0
29	0	0	142	3	0	181	0	0	326	0	102,000	0	2.6	58
30	0	0	134	17	0	171	0	0	322	0	114,600	0	3.0	58.0
31	0	0	121	12	0	159	0	0	292	0	130,100	0	2.7	58
TOTALS	0	0	8,035	1,396	0	9,606	0	0	19,037	1				

END OF COUNTING SEASON

TABLE 65
WATER TEMPERATURE AND STREAM FLOW DATA
McNARY - 1973

DATE	NOVEMBER			DECEMBER		
	WATER TEMP.*	STREAM FLOW	TURBIDITY *	WATER TEMP	STREAM FLOW	TURBIDITY
1		102,500		46	121,000	
2		110,200		47	98,100	
3		116,500		47	105,100	
4		64,600		47	122,500	
5		122,000		46	144,700	
6		127,100		46	132,200	
7		119,600		46	141,100	
8		111,200		46	122,500	
9		93,600		46	129,800	
10		84,500		46	140,700	
11		81,500		46	147,800	
12		96,400		46	135,200	
13		108,700		46	154,800	
14		119,90C		45	165,500	
15		124,700		45	119,800	
16		112,100		45	89,100	
17		102,800		45	139,600	
18		95,500		45	156,200	
19		126,000		46	180,500	
20		115,400		45	174,600	
21		116,100		46	187,000	
22	48	112,600		46	164,000	
23	48	94,800		45	150,500	
24	48	92,000		45	162,800	
25	47	86,000		45	180,300	
26	47	123,800		45	176,300	
27	46	108,100		44	188,400	
28	46	124,100		44	190,300	0.9
29	46	121,100		44	203,300	1.0
30	47	129,900		44	185,100	1.7
31				43	171,900	1.6

* Information not available for dates shown

TABLE 66

PEAK DAYS OF FISH MIGRATION
McNARY DAM - 1954 -1973

Year	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho		Chum	
	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1954	May 12	6,571	Jul 5	2,565	Sep 12	906	Sep 10	1,285	Jul 9	6,798	Sep 11	79	Oct 17	1
1955	May 26	2,565	Jul 10	3,034	Sep 10	536	Aug 13	2,432	Jul 16	19,916	Sep 26	26		
1956	May 21	1,112	Jul 1	5,361	Sep 11	473	Aug 10	967	Jul 12	9,322	Sep 17	32		
1957	May 4	7,075	Jul 26	7,616	Sep 13	2,963	Oct 5	3,028	Jul 11	5,763	Sep 25	208		
1958	Jun 7	3,247	Jun 21	4,725	Sep 12	5,268	Sep 23	2,909	Jul 12	5,809	Sep 21	92		
1959	May 14	1,831	Jul 9	3,658	Sep 15	3,007	Sep 19	3,884	Jul 15	5,786	Sep 15	147		
1960	May 7	5,124	Jun 23	4,752	Sep 10	2,966	Sep 14	3,720	Jul 1	3,637	Sep 10 & 17	116		
1961	May 2	5,775	Jun 29	2,281	Sep 17	1,978	Sep 17	3,734	Jul 12	897	Sep 11	147		
1962	May 3	3,565	Jun 23	2,800	Sep 11	3,011	Sep 9	6,422	Jul 11	2,454	Sep 9	207		
1963	May 11	3,219	Jun 26	1,710	Sep 11	3,643	Sep 21	2,793	Jul 5	4,637	Sep 5	128		
1964	Apr 30	4,865	Jul 3	2,440	Sep 10	3,000	Sep 14	3,312	Jul 12	7,457	Sep 19	201		
1965	May 16	1,648	Jul 7	2,056	Sep 15	4,251	Aug 2	3,880	Jul 7	4,326	Sep 18	211		
1966	Apr 23	4,795	Jul 5	1,992	Sep 18	3,320	Sep 24	4,588	Jul 13	10,370	Sep 13	451		
1967	Apr 27	3,509	Jul 5	2,242	Sep 25	5,782	Sep 25	2,969	Jul 13	8,605	Sep 16	1,659		
1968	Apr 30	9,471	Jul 21	2,388	Sep 11	4,213	Sep 13	3,796	Jul 3	7,226	Sep 13	3,307		
1969	May 13	4,793	Jun 24	2,700	Sep 16	5,582	Sep 13	3,197	Jul 12	1,554	Sep 16	2,864		
1970	Apr 30	4,924	Jul 13	1,704	Sep 16	3,625	Sep 14	3,011	Jul 11	3,081	Sep 14	2,794		
1971	May 4	3,208	Jul 9	2,020	Sep 12	4,710	Sep 12	4,574	Jul 13	3,926	Sep 12	2,732		
1972	Apr 30	5,376	Jul 5	1,089	Sep 17	3,627	Sep 20	3,695	Jul 13	2,084	Sep 17	2,508		
1973	Apr 28	6,543	Jun 17	1,684	Sep 13	6,570	Sep 13	2,970	Jul 6	3,059	Sep 15	1,474		
Total		89,216		59,617		69,431		67,166		116,707		19,383		
20 Year Average		4,461		2,981		3,471		3,358		5,835		969		

TABLE 67

MONTHLY COUNT OF CHINOOK SALMON
McNARY DAM - 1954 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total for Year	Spring Apr 1 Jun 8	Summer Jun 9 Aug 8	Fall Aug 9 Oct 31
1954			14	919	42,625	28,510	35,993	9,287	8,626	568	13		126,555	52,014	61,065	13,476
1955				86	12,778	26,125	46,021	14,773	7,220	1,648	264		108,915	21,309	71,180	16,426
1956			7	307	10,746	34,360	50,409	11,073	5,636	1,360	444		114,342	12,717	90,335	11,290
1957			6	14,489	67,939	91,473	41,485	25,621	48,685	2,998			292,696	99,511	122,578	70,607
1958				1,864	36,684	61,898	25,140	11,120	82,890	6,496			226,092	54,910	73,654	97,528
1959				3,914	31,923	23,461	51,478	14,929	42,756	3,029			171,490	40,775	74,985	55,730
1960				4,808	44,721	49,506	25,710	13,376	35,329	3,317			176,767	52,490	76,940	47,337
1961				21,669	44,260	19,722	23,192	10,661	31,447	4,045			154,996	68,539	45,257	41,200
1962				10,527	44,053	28,621	21,008	11,751	33,541	3,255			152,756	55,884	52,756	44,116
1963				7,765	42,804	22,454	18,659	13,757	43,731	5,289			154,459	52,336	44,760	57,363
1964				19,856	33,310	10,893	39,334	14,930	45,514	4,097			167,934	54,279	55,062	58,593
1965				6,114	20,559	14,094	28,599	12,856	60,185	8,500			150,907	29,206	45,375	76,326
1966				53,484	32,282	21,161	35,895	13,811	58,275	8,233			223,141	87,195	60,827	75,119
1967				32,790	28,174	13,244	44,612	10,788	54,314	11,731			195,653	62,591	59,975	73,087
1968				13,328	51,443	20,456	37,127	15,713	53,597	8,824			200,488	67,092	60.639	72,757
1969				809	60,241	39,074	30,556	12.200	59,889	10,638			213 407	70,079	63.953	79,375
1970				28,015	34,027	18,661	23,132	13,773	44,635	6,649			168,892	63,982	43,356	61,554
1971				5,642	32,688	24,007	35,152	9,680	55,297	8,982			171,448	42,601	59,129	69,718
1972				25,911	41,609	12,553	35,322	10,154	37,131	6,141			168,821	69,023	50,491	49,307
1973				44,878	31,727	16,836	14,520	10,400	57,716	8,035			184,112	79,047	31,812	73,253
Total			27	297,175	744,593	577,109	663,344	260,653	866,414	113,835	721		3,523,871	1,135,580	1,244,129	1,144,162
20-Year Average			1	14,859	37,230	28,855	33,167	13,033	43,321	5,692	36		176,194	56,779	62,206	57,208

TABLE 68

TABLE 68

MONTHLY COUNT OF SOCKEYE SALMON

McNARY DAM - 1954 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1954					1	1,107	93,452	11,382	2,214	25			108,181
1955					43	287	163,902	9,402	121	3			173,758
1956					1	639	94,352	6,882	262	7	2		102,145
1957					13	6,318	74,874	4,233	22				85,460
1958						12,542	82,547	5,474	1,819	15			102,397
1959					21	2,031	73,735	7,981	209				83,977
1960						9,374	43,749	2,241	8				55,372
1961						1,088	14,149	1,138	11	2			16,388
1962						1,721	27,134	511	6				29,372
1963					78	8,712	50,415	535	4				59,744
1964						770	81,536	1,617	8				83,931
1965						328	40,790	923	10	1			42,052
1966						6,202	162,267	4,548	11				173,028
1967						1,935	101,044	2,647	9				105,635
1968						28,928	70.413	1,666					101.007
1969						5,787	23,353	647					29,787
1970						7,152	47,339	5,134	11				59,636
1971					0	317	50,568	1,982	0				52,867
1972						366	24,452	1,604					26,422
1973						9,011	32,301	999	420				42,731
Total					157	104,615	1,352,372	71,546	5,145	53	2		1,533,890
20-Year Average					8	5,230	67,619	3,577	257	3	0		76,694

TABLE 69

MONTHLY COUNT OF COHO SALMON

McNARY DAM - 1954 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1954								4	751	180	14	1	950
1955									350	260	33		643
1956								16	462	157	48		683
1957							18	208	2,364	265			2,855
1958								29	1,091	230			1,350
1959								32	1,892	46			1,970
1960								24	1,432	124			1,580
1961								22	1,731	292			2,045
1962							5	106	2,884	200			3,195
1963							5	437	2,259	412			3,113
1964							3	307	2,734	273			3,317
1965							22	105	2,264	309			2,700
1966								811	7,195	519			8,525
1967							11	11	22,492	4,712			27,226
1968								1,010	36,260	2,248			39,518
1969								1,643	45,497	6,576			53,716
1970								3,576	31,161	1,662			36,399
1971							0	927	33,828	4,603			39,358
1972								2,433	38,747	4,455			45,635
1973							66	1,768	14,452	1,396			17,682
Total							130	13,469	249,846	28,919	95	1	292,460
20-Year Average							6	673	12,492	1,446	5	0	14,623

TABLE 69

TABLE 70

MONTHLY COUNT OF STEELHEAD TROUT

McNARY DAM - 1954 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1954			376	5,569	2,307	128	2,628	20,939	26,944	11,627	2,937	1,604	75,059
1955	931	35	70	3,279	1,791	162	5,257	36,035	17,463	16,941	2,874	737	85,575
1956	66	753	563	2,365	1,218	276	5,440	14,492	8,245	6,787	2,349		42,554
1957			840	2,084	147	334	18,100	28,926	34,478	20,775	8	36	105,728
1958	62	137	1,069	877	334	1,265	9,967	6,535	50,229	17,415			87,890
1959				1,317	685	748	10,508	32,872	49,542	14,803			110,475
1960				1,579	1,236	908	8,475	22,443	51,749	10,505			96,895
1961				896	580	1,281	7,469	11,428	64,521	17,568			103,743
1962				1,650	762	1,108	11,321	28,288	98,042	22,010			163,181
1963				813	1,751	2,639	8,252	26,282	47,982	25,927			113,646
1964				1,789	805	486	7,602	25,918	53,180	10,962			100,742
1965				1,361	363	231	11,749	31,155	54,450	19,651			118,960
1966				2,279	954	1,476	18,241	26,062	71,180	24,938			145,130
1967				1,434	1,130	152	5,771	14,894	32,310	22,009			77,700
1968				5,451	3,361	247	4,058	22,268	61,167	15,970			112,522
1969				2,304	1,792	711	7,668	13,641	35,836	14,729			76,681
1970				1,347	1,001	340	5,183	15,236	39,150	7,502			69,759
1971				813	374	271	8,931	21,324	62,083	15,834			109,630
1972				1,614	393	130	8,155	20,548	46,393	16,587			93,820
1973				3,178	846	270	6,898	11,121	32,701	9,606			64,620
Total	1,059	925	2,918	41,999	21,830	13,163	171,673	430,407	937,645	322,146	8,168	2,377	1,954,310
20-Year Average	53	46	146	2,100	1,092	658	8,584	21,520	46,882	16,107	408	119	97,716

TABLE 71

YEARLY TOTALS OF SALMONIDS COUNTED OVER ICE HARBOR DAM

1962 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Chum	Total Salmon
1962	94,301	115,796	38	3,207		213,342
1963	61,190	74,539	1,118	1,933		138,780
1964	60,097	58,860	1,276	2,071		122,304
1965	39,233	62,873	317	320		102,743
1966	75,882	65,798	278	878		142,836
1967	84,930	44,205	717	3,770		133,622
1968	98,681	82,383	1,165	6,227		188,456
1969	100,514	63,889	745	5,316		170,464
1970	77,698	53,870	797	3,636		136,001
1971	70,248	67,029	532	2,969		140,778
1972	82,639	63,593	363	2,522	6	149,116
1973	81,821	38,311	233	2,443	4	122,812
Total	927,227	791,146	7,579	35,292	10	1,761,254
12-Year Average	77,269	65,929	632	2,941		146,771

TABLE 72

TABLE 72

MONTHLY TOTALS OF SALMONID AND SHAD COUNTED OVER ICE HARBOR DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK	-	-	-	34,277	23,627	10,925	4,254	840	6,657	1,241	-	-	81,821
STEELHEAD	-	-	-	1,570	827	254	1,785	2,699	22,021	9,155	-	-	38,311
SOCKEYE	-	-	-	-	-	95	137	1	-	-	-	-	233
COHO	-	-	-	-	-	-	101	192	1,720	430	-	-	2,443
CHUMS	-	-	-	-	-	-	-	1	2	1	-	-	4
TOTAL SALMON	-	-	-	35,847	24,454	11,274	6,277	3,733	30,400	10,827	-	-	122,812
SHAD	-	-	-	-	-	3,052	8,284	76	-	-	-	-	11,412

TABLE 73

WATER TEMPERATURE AND STREAM FLOW DATA
ICE HARBOR - 1973

DATE	JANUARY			FEBRUARY			MARCH		
	WATER TEMP.	STREAM FLOW	TURBIDITY *	WATER TEMP.	STREAM FLOW	TURBIDITY *	WATER TEMP.	STREAM FLOW	TURBIDITY *
1	40	41,900		37	33,300		40	36,600	
2	40	38,800		37	38,500		40	39,700	
3	40	43,900		37	34,600		40	43,800	
4	40	42,700		37	39,200		40	43,700	
5	39	40,100		38	34,700		40	43,200	
6	38	28,100		38	35,100		41	38,500	
7	38	31,400		38	41,200		41	41,000	
8	37	36,400		38	34,700		42	37,900	
9	37	36,300		38	32,800		42	37,600	
10	36	35,100		37	31,300		42	38,900	
11	36	34,200		37	28,700		42	38,200	
12	36	35,400		36	41,800		42	43,800	
13	36	47,000		36	31,100		42	43,500	
14	36	54,800		36	26,300		42	43,700	
15	36	43,100		36	34,000		43	29,600	
16	36	54,900		37	36,600		43	30,600	
17	36	61,700		37	42,500		43	30,000	
18	35	62,600		37	30,400		44	29,000	
19	35	56,800		37	34,000		43	29,800	
20	34	54,500		37	38,500		43	28,800	
21	34	57,000		37	37,700		43	32,100	
22	34	59,700		37	38,100		44	32,500	
23	34	42,200		38	32,800		44	28,400	
24	34	29,000		38	25,700		44	25,800	
25	35	42,500		38	26,600		44	27,700	
26	35	41,200		38	29,400		45	31,800	
27	36	41,100		39	30,100		45	36,800	
28	36	42,100		39	33,700		45	39,000	
29	36	49,700					45	32,000	
30	36	37,500					46	33,400	
31	37	35,400					46	31,800	

*Turbidity Not Available

MONTHLY FISH PASSAGE SUMMARY REPORT — ICE HARBOR PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 74 — APRIL 1973

TABLE 74

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	1	0	0	0	0	41	0	0	42	0	26,300	0	1.3	46
2	2	0	0	0	0	46	0	0	48	0	32,300	0	1.5	46
3	5	0	0	0	0	86	0	0	91	0	32,800	0	1.6	47
4	6	0	0	0	0	54	0	0	60	0	28,700	0	1.7	47
5	7	0	0	0	0	62	0	0	69	0	31,400	0	1.5	47
6	7	0	0	0	0	52	0	0	59	0	31,400	0	1.6	48
7	24	0	0	0	0	93	0	0	117	0	24,900	0	1.5	48
8	30	0	0	0	0	71	0	0	101	0	20,500	0	1.7	48
9	11	0	0	0	0	43	0	0	54	0	35,000	0	1.6	48
10	39	0	0	0	0	71	0	0	110	0	37,900	0	1.6	49
11	166	0	0	0	0	48	0	0	214	0	32,500	0	1.7	49
12	256	0	0	0	0	53	0	0	309	0	30,500	0	2.0	50
13	520	0	0	0	0	89	0	0	609	0	31,800	0	1.9	51
14	275	0	0	0	0	51	0	0	326	0	21,400	0	1.5	51
15	105	0	0	0	0	28	0	0	133	0	31,400	0	1.9	50
16	116	0	0	0	0	20	0	0	136	0	36,600	0	1.7	50
17	1,762	0	0	0	0	52	0	0	1,814	0	41,000	0	1.5	50
18	2,055	0	0	0	0	33	0	0	2,088	0	36,300	0	2.0	50
19	1,456	0	0	0	0	35	0	0	1,491	0	35,800	0	2.4	50
20	1,887	0	0	0	0	43	0	0	1,930	0	42,100	0	2.0	50
21	1,187	0	0	0	0	94	0	0	1,281	0	29,600	0	2.2	50
22	1,136	0	0	0	0	23	0	0	1,159	0	30,400	0	2.5	50
23	3,335	0	0	0	0	108	0	0	3,443	0	39,300	0	2.7	50
24	2,660	0	0	0	0	45	0	0	2,705	0	41,100	0	1.7	50
25	2,636	0	0	0	0	51	0	0	2,687	0	35,100	0	2.3	51
26	2,031	0	0	0	0	50	0	0	2,081	0	35,900	0	2.8	51
27	2,776	0	0	0	0	38	0	0	2,814	0	35,600	0	1.9	51
28	1,604	0	0	0	0	18	0	0	1,822	0	36,700	0	2.1	50
29	4,821	0	0	0	0	22	0	0	4,843	0	36,300	0	2.2	52
30	3,161	0	0	0	0	50	0	0	3,211	0	43,400	0	2.4	14
TOTALS	34,277	0	0	0	0	1,570	0	0	35,847	0				

MONTHLY FISH PASSAGE SUMMARY REPORT

ICE HARBOR PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 75

MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	989	0	0	0	0	27	0	0	1,016	0	42,400	0	2.3	54
2	1,514	0	0	0	0	43	0	0	1,557	0	37,900	0	2.4	54
3	1,905	0	0	0	0	27	0	0	1,932	0	43,000	0	2.6	54
4	3,320	0	0	0	0	71	0	0	3,391	0	36,400	0	2.0	54
5	2,759	0	0	0	0	53	0	0	2,812	0	35,400	0	2.2	54
6	1,943	0	0	0	0	58	0	0	2,001	0	43,900	0	2.0	54
7	1,808	0	0	0	0	62	0	0	1,870	0	52,200	7,800	2.2	55
8	2,112	0	0	0	0	60	0	0	2,172	0	40,900	0	2.0	55
9	931	0	0	0	0	46	0	0	977	0	43,800	0	2.2	55
10	808	0	0	0	0	46	0	0	854	0	57,900	13,900	2.0	55
11	390	0	0	0	0	30	0	0	420	0	57,400	13,600	2.0	55
12	351	0	0	0	0	10	0	0	361	0	45,000	400	2.0	55
13	328	0	0	0	0	20	0	0	348	0	41,000	0	2.1	55
14	264	0	0	0	0	17	0	0	281	0	44,700	0	2.2	56
15	416	0	0	0	0	29	0	0	445	0	57,900	13,100	2.4	56
16	575	0	0	0	0	28	0	0	603	0	57,500	13,400	2.2	58
17	486	0	0	0	0	30	0	0	516	0	66,900	21,300	2.2	56
18	270	0	0	0	0	13	0	0	283	0	83,600	37,500	2.1	58
19	242	0	0	0	0	9	0	0	251	0	88,700	41,900	2.1	58
20	195	0	0	0	0	9	0	0	204	0	82,400	36,600	2.3	58
21	177	0	0	0	0	13	0	0	190	0	86,900	41,800	2.2	59
22	222	0	0	0	0	15	0	0	237	0	77,600	32,600	2.9	56
23	257	0	0	0	0	11	0	0	268	0	68,900	24,400	2.4	59
24	149	0	0	0	0	18	0	0	167	0	73,200	29,100	2.3	59
25	224	0	0	0	0	13	0	0	237	0	77,700	33,000	2.3	59
26	131	0	0	0	0	10	0	0	141	0	86,500	40,800	2.2	58
27	160	0	0	0	0	14	0	0	174	0	71,900	26,700	2.0	57
28	214	0	0	0	0	12	0	0	226	0	59,600	14,700	2.0	57
29	229	0	0	0	0	11	0	0	240	0	61,400	17,200	2.0	57
30	108	0	0	0	0	10	0	0	118	0	68,900	24,500	1.8	57
31	150	0	0	0	0	12	0	0	162	0	58,600	14,600	1.8	57
TOTALS	23,627	0	0	0	0	827	0	0	24,454	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — ICE HARBOR PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 76 — JUNE 1973

TABLE 76

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	97	0	0	0	0	14	0	0	111	0	62,700	18,300	1.5	57
2	130	0	0	0	0	14	0	0	144	0	63,000	18,300	1.7	57
3	97	0	0	0	0	9	0	0	106	0	64,200	19,400	2.0	57
4	81	0	0	0	0	0	0	0	81	0	66,100	21,700	2.0	57
5	165	0	0	0	0	4	0	0	169	0	56,500	11,400	2.0	58
6	385	0	0	0	0	3	0	0	388	0	58,000	13,200	2.0	58
7	304	0	0	0	0	1	0	0	305	0	51,400	7,300	2.4	59
8	230	0	0	0	0	17	0	0	247	0	54,600	9,700	2.5	59
9	337	0	0	0	0	9	0	0	346	42	49,700	4,500	2.4	59
10	357	0	0	0	0	3	0	0	360	13	55,300	10,100	2.5	59
11	552	0	0	0	0	11	0	0	563	14	53,500	9,500	2.4	59
12	0	605	0	0	0	1	0	0	606	8	46,100	1,700	2.6	59
13	0	542	0	0	0	2	0	0	544	0	44,100	0	2.5	59
14	0	384	0	0	0	3	0	0	387	1	45,200	1,300	2.5	60
15	0	284	0	0	0	7	0	0	291	2	47,000	3,700	2.2	60
16	0	432	0	0	0	12	0	0	444	8	61,500	17,100	1.7	61
17	0	499	0	0	0	11	0	0	510	5	56,800	12,600	2.0	61
18	0	1,062	0	0	4	39	0	0	1,105	11	60,700	16,300	1.6	61
19	0	485	0	0	15	7	0	0	507	22	56,100	11,400	2.5	62
20	0	521	0	0	1	14	0	0	536	107	52,200	7,300	2.5	62
21	0	435	0	0	11	7	0	0	453	193	44,600	0	2.0	63
22	0	376	0	0	6	7	0	0	389	235	45,900	1,500	2.7	63
23	0	401	0	0	7	9	0	0	417	106	44,300	0	2.2	63
24	0	270	0	0	1	2	0	0	273	65	44,600	0	2.0	62
25	0	398	0	0	7	7	0	0	412	246	47,600	3,200	2.4	62
26	0	371	0	0	9	18	0	0	398	436	43,700	0	2.6	62
27	0	361	0	0	12	5	0	0	378	524	44,000	0	2.6	62
28	0	234	0	0	10	7	0	0	251	601	44,600	0	2.6	63
29	0	275	0	0	4	6	0	0	285	281	37,500	0	2.8	63
30	0	255	0	0	8	5	0	0	268	132	35,400	0	2.7	63
TOTALS	2,735	8,190	0	0	95	254	0	0	11,274	3,052				

MONTHLY FISH PASSAGE SUMMARY REPORT — ICE HARBOR PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 77 — JULY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	287	0	0	5	3	0	0	295	75	24,200	0	2.7	63
2	0	316	0	0	5	2	0	0	323	402	34,400	0	2.8	63
3	0	384	0	0	4	5	0	0	393	716	29,500	0	2.5	63
4	0	258	0	0	2	12	0	0	272	535	20,400	0	2.5	63
5	0	302	0	0	4	8	0	0	314	0	33,000	0	2.4	63
6	0	255	0	0	7	24	0	0	286	475	36,100	0	3.0	65
7	0	277	0	0	5	38	0	0	320	372	30,200	0	3.0	65
8	0	170	0	0	10	48	0	0	228	265	18,200	0	3.0	65
9	0	158	0	0	16	36	0	0	210	289	35,000	0	2.8	65
10	0	178	0	0	9	38	0	0	225	414	37,900	0	4.5	65
11	0	117	0	0	27	27	0	0	171	685	27,000	0	4.2	66
12	0	127	0	0	18	74	0	0	219	930	29,300	0	4.5	66
13	0	109	0	0	3	52	0	0	164	643	19,100	0	5.0	66
14	0	74	0	0	5	46	0	0	125	600	21,000	0	5.0	66
15	0	36	0	0	2	61	0	0	99	194	12,900	0	5.0	66
16	0	106	0	0	0	94	0	0	200	177	28,600	0	5.0	67
17	0	95	0	0	0	82	0	0	177	341	20,100	0	5.0	67
18	0	59	0	0	0	41	0	0	100	312	22,400	0	5.0	68
19	0	59	0	1	0	69	0	0	129	213	19,700	0	5.0	68
20	0	118	0	0	0	105	0	0	223	181	21,800	0	5.0	68
21	0	79	0	13	6	73	0	0	171	160	13,600	0	5.0	68
22	0	80	0	14	1	105	0	0	200	33	11,900	0	5.0	69
23	0	119	0	17	2	80	0	0	218	54	19,300	0	5.0	69
24	0	120	0	16	2	123	0	0	261	53	14,400	0	5.0	70
25	0	94	0	1	2	83	0	0	180	73	18,900	0	5.0	70
26	0	55	0	0	2	37	0	0	94	22	20,600	0	4.5	70
27	0	46	0	3	0	53	0	0	102	33	18,300	0	5.0	70
28	0	46	0	7	0	71	0	0	124	18	20,800	0	5.0	70
29	0	29	0	3	0	54	0	0	86	11	13,800	0	5.0	70
30	0	38	0	12	0	48	0	0	98	2	33,800	0	5.0	70
31	0	63	0	14	0	193	0	0	270	6	15,300	0	5.0	71
TOTALS	0	4,254	0	101	137	1,785	0	0	6,277	8,284				

TABLE 78

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 78

ICE HARBOR PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	28	0	6	0	148	0	0	182	16	22,200	0	5.0	71
2	0	17	0	1	0	85	0	0	103	12	34,000	0	5.0	72
3	0	46	0	15	0	134	0	0	195	12	21,200	0	5.0	72
4	0	52	0	13	0	144	0	0	209	0	14,900	0	5.0	72
5	0	37	0	3	0	100	0	0	140	2	11,100	0	5.0	71
6	0	29	0	5	0	150	0	0	184	16	24,100	0	5.0	71
7	0	32	0	23	0	195	0	0	250	5	19,400	0	5.0	71
8	0	41	0	16	0	134	0	0	191	8	13,800	0	5.0	71
9	0	24	0	6	0	75	0	0	105	4	18,000	0	5.0	71
10	0	43	0	10	0	66	0	0	119	0	15,200	0	4.0	71
11	0	36	0	4	0	87	0	0	127	0	11,200	0	4.4	71
12	0	0	11	3	0	47	0	0	61	0	9,900	0	4.0	71
13	0	0	11	0	0	38	0	0	49	0	18,400	0	4.2	72
14	0	0	32	9	0	75	0	0	116	0	16,200	0	4.3	72
15	0	0	24	2	0	94	0	0	120	0	16,500	0	4.3	72
16	0	0	11	0	0	29	0	0	40	0	15,100	0	4.0	72
17	0	0	28	3	0	93	0	0	124	0	22,600	0	4.1	72
18	0	0	26	5	0	101	0	0	132	0	20,400	0	5.0	72
19	0	0	29	3	0	89	0	0	121	0	12,000	0	5.0	72
20	0	0	19	9	0	53	0	0	81	0	18,800	0	5.0	72
21	0	0	17	11	0	54	0	0	82	0	25,500	0	5.0	72
22	0	0	47	3	0	52	0	0	102	0	16,500	0	4.7	72
23	0	0	23	2	0	48	0	0	73	0	20,700	0	4.5	71
24	0	0	22	1	0	59	0	0	82	0	17,200	0	3.8	71
25	0	0	17	1	0	72	0	0	90	0	14,700	0	3.6	71
26	0	0	14	0	0	64	0	0	78	0	13,300	0	4.4	70
27	0	0	9	2	0	33	0	0	44	0	28,300	0	3.6	70
28	0	0	42	11	0	124	1	0	178	1	15,400	0	3.4	70
29	0	0	13	3	1	83	0	0	100	0	10,700	0	4.0	70
30	0	0	33	7	0	80	0	0	120	0	18,400	0	4.0	69
31	0	0	27	15	0	93	0	0	135	0	14,400	0	3.5	69
TOTALS	0	385	455	192	1	2,699	1	0	3,733	76				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 79

ICE HARBOR PROJECT

SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	38	7	0	157	2	0	204	0	12,000	0	3.4	68
2	0	0	30	17	0	143	0	0	190	0	11,300	0	3.5	68
3	0	0	10	7	0	52	0	0	69	0	15,900	0	3.3	68
4	0	0	29	15	0	118	0	0	162	0	26,600	0	3.3	68
5	0	0	35	26	0	241	0	0	302	0	25,500	0	4.0	68
6	0	0	78	7	0	481	0	0	566	0	32,600	0	3.7	69
7	0	0	117	40	0	678	0	0	835	0	31,100	0	3.8	68
8	0	0	131	50	0	1,200	0	0	1,381	0	20,600	0	3.7	68
9	0	0	153	43	0	442	0	0	638	0	14,400	0	3.5	67
10	0	0	82	58	0	224	0	0	364	0	24,400	0	3.7	67
11	0	0	166	65	0	552	0	0	783	0	24,600	0	4.0	67
12	0	0	212	103	0	990	0	0	1,305	0	25,700	0	3.5	67
13	0	0	518	163	0	1,280	0	0	1,961	0	22,200	0	4.0	67
14	0	0	530	126	0	1,026	0	0	1,682	0	26,700	0	4.0	68
15	0	0	712	128	0	1,501	0	0	2,341	0	27,100	0	4.8	67
16	0	0	515	90	0	1,182	0	0	1,787	0	17,200	0	4.0	67
17	0	0	577	72	0	828	0	0	1,477	0	20,600	0	4.0	67
18	0	0	290	65	0	926	0	0	1,281	0	28,900	0	3.3	66.0
19	0	0	697	156	0	1,698	0	0	2,551	0	29,400	0	3.8	66.0
20	0	0	371	95	0	1,692	0	0	2,158	0	30,900	0	3.5	66.0
21	0	0	346	88	0	1,307	0	0	1,741	0	20,300	0	3.4	66.0
22	0	0	149	34	0	1,082	0	0	1,265	0	23,100	0	3.4	65.0
23	0	0	175	42	0	579	0	0	796	0	19,700	0	3.8	65.0
24	0	0	84	38	0	512	0	0	634	0	29,000	0	3.5	64.0
25	0	0	98	37	0	470	0	0	605	0	30,900	0	3.5	64.0
26	0	0	109	19	0	426	0	0	554	0	30,300	0	3.4	64.0
27	0	0	89	36	0	556	0	0	681	0	32,000	0	3.5	64.0
28	0	0	97	30	0	348	0	0	475	0	29,300	0	4.8	63.0
29	0	0	80	33	0	676	0	0	789	0	29,400	0	5.0	64.0
30	0	0	139	30	0	654	0	0	823	0	24,100	0	4.3	64.0
TOTALS	0	0	6,657	1,720	0	22,021	2	0	30,400	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — ICE HARBOR PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 80 — OCTOBER 1973

TABLE 80

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	70	38	0	363	0	0	471	0	33,100	0	4.6	64.0
2	0	0	76	32	0	506	0	0	614	0	25,300	0	5.0	64.0
3	0	0	69	34	0	403	0	0	506	0	23,500	0	4.5	63.0
4	0	0	57	21	0	410	0	0	488	0	31,100	0	3.8	62.0
5	0	0	69	23	0	485	1	0	578	0	24,900	0	3.3	62.0
6	0	0	103	44	0	611	0	0	758	0	22,600	0	3.5	62.0
7	0	0	52	16	0	578	0	0	646	0	20,300	0	4.2	61.0
8	0	0	59	12	0	361	0	0	432	0	20,900	0	3.5	61.0
9	0	0	35	5	0	250	0	0	290	0	17,600	0	3.4	61.0
10	0	0	37	14	0	283	0	0	334	0	26,400	0	4.0	60.0
11	0	0	40	6	0	225	0	0	271	0	21,700	0	3.7	60.0
12	0	0	33	20	0	349	0	0	402	0	20,700	0	3.7	59.0
13	0	0	48	24	0	558	0	0	630	0	16,100	0	3.6	59.0
14	0	0	50	21	0	338	0	0	409	0	18,000	0	3.7	58.0
15	0	0	25	10	0	256	0	0	291	0	31,400	0	4.0	58.0
16	0	0	52	14	0	267	0	0	333	0	23,400	0	3.9	57.0
17	0	0	37	8	0	295	0	0	340	0	33,300	0	3.9	57.0
18	0	0	49	17	0	356	0	0	422	0	19,300	0	3.8	57.0
19	0	0	57	14	0	315	0	0	386	0	20,600	0	3.7	57.0
20	0	0	11	7	0	195	0	0	213	0	21,100	0	3.0	57.0
21	0	0	32	9	0	160	0	0	201	0	30,800	0	3.5	57.0
22	0	0	23	13	0	163	0	0	199	0	33,800	0	3.5	57.0
23	0	0	15	2	0	164	0	0	181	0	16,700	0	3.5	57.0
24	0	0	15	2	0	131	0	0	148	0	20,100	0	3.0	57.0
25	0	0	31	16	0	225	0	0	272	0	11,600	0	3.0	57.0
26	0	0	19	2	0	190	0	0	211	0	20,700	0	3.6	57.0
27	0	0	12	2	0	201	0	0	215	0	21,300	0	3.5	57.0
28	0	0	25	3	0	180	0	0	208	0	23,900	0	3.4	56.0
29	0	0	12	1	0	155	0	0	168	0	26,100	0	3.4	56.0
30	0	0	19	0	0	93	0	0	112	0	21,100	0	3.5	56.0
31	0	0	9	0	0	89	0	0	98	0	29,100	0	3.4	56.0
TOTALS	0	0	1,241	430	0	9,155	1	0	10,827	0				

END OF COUNTING SEASON

TABLE 81

WATER TEMPERATURE AND STREAM FLOW DATA
ICE HARBOR - 1973

DATE	NOVEMBER			DECEMBER		
	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	54	32,000		45	36,600	3.0
2	54	33,100		45	44,300	2.9
3	54	31,500		45	44,200	3.0
4	53	28,100		44	41,800	3.1
5	52	30,600		44	43,700	3.6
6	52	25,900		44	43,900	3.8
7	52	19,500		43	42,500	3.6
8	51	20,200		43	44,500	3.8
9	51	24,300		42	44,300	3.4
10	51	28,900		42	44,600	3.3
11	51	33,900		42	44,300	2.8
12	51	43,800		42	42,600	2.8
13	51	62,700		42	43,700	2.8
14	51	63,200		43	42,400	1.6
15	50	60,000		43	44,200	1.0
16	50	54,200		43	41,100	0.8
17	49	45,200		43	42,700	0.5
18	48	53,700		43	53,200	0.5
19	47	51,100		43	59,800	0.7
20	47	39,400		43	56,100	1.2
21	46	42,700	4.0	42	56,600	1.2
22	46	37,700	4.0	42	60,600	1.3
23	46	40,400	4.5	42	53,700	0.9
24	46	29,900	3.5	42	60,900	1.0
25	46	32,300	3.0	42	57,200	1.1
26	46	38,800	2.6	42	55,300	1.1
27	46	34,200	2.7	42	54,900	1.1
28	46	35,900	2.8	42	61,900	1.0
29	45	35,500	3.0	42	56,300	1.0
30	45	39,100	2.9	41	39,900	0.7
31				41	42,700	0.6

TABLE 82

PEAK DAYS OF MIGRATION
ICE HARBOR DAM - 1962 - 1973

Year	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho	
	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1962	May 17	2,425	Jun 28	2,509	Sep 24	1,398	Sep 19	5,313	Jul 1	5	Sep 16	416
1963	May 12	1,843	Jun 25	1,150	Sep 27	812	Sep 27	2,741	Jul 8	125	Sep 14	116
1964	May 9	2,284	Jul 4	1,554	Sep 10	546	Sep 19	2,558	Sep 22	54	Sep 10	202
1965	May 22	1,300	Jul 3	924	Sep 18	653	Sep 18	2,246	Jul 8	104	Sep 19	70
1966	Apr 24	3,902	Jun 27	1,030	Sep 9	707	Sep 26	2,770	Jul 9	41	Sep 27	92
1967	Apr 28	2,423	Jul 7	1,448	Sep 18	1,570	Sep 19	1,820	Jul 12	123	Sep 18	289
1968	May 2	6,411	Jul 23	1,420	Sep 11	1,177	Sep 16	3,434	Jul 7	101	Sep 10	358
1969	May 19	2,993	Jun 25	1,673	Sep 20	910	Sep 21	1,841	Jul 1	50	Sep 20	339
1970	May 1	5,125	Jun 25	765	Sep 19	875	Sep 19	3,863	Jul 14	59	Sep 17	247
1971	May 26	2,189	Jul 9	1,036	Sep 12	669	Sep 25	2,494	Jul 23	45	Sep 12	243
1972	Apr 30	3,564	Jul 6	1,426	Sep 23	465	Sep 20	2,808	Jul 18	28	Sep 26	283
1973	Apr 29	4,821	Jun 18	1,062	Sep 15	712	Sep 19	1,698	Jul 11	27	Sep 13	163
Total		39,280		15,997		10,494		33,586		762		2,818
12-Year Average		3,273		1,333		874		2,799		64		235

TABLE 83

MONTHLY COUNT OF CHINOOK SALMON

ICE HARBOR DAM - 1962 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total for Year	Spring Apr 1 Jun 11	Summer Jun 12 Aug 11	Fall Aug 12 Oct 31
1962				2,579	28,951	23,250	8,315	3,547	20,578	7,081			94,301	33,613	30,639	30,049
1963				3,434	21,790	14,001	7,591	1,415	9,342	2,918	677	22	61,190	26,778	20,875	13,537
1964		1	2	4,048	19,611	5,409	18,832	2,161	8,159	1,701	156	17	60,097	24,304	24,696	11,097
1965			4	1,677	9,649	5,072	10,209	803	3,318	2,152	349		39,233	12,178	14,701	12,354
1966				23,382	19,294	10,611	7,166	1,933	10,756	2,740			75,882	43,881	16,983	15,018
1967				15,973	18,137	9,020	22,218	820	11,947	6,815			84,930	35,593	30,315	19,022
1968				1,595	41,398	12,119	17,751	3,433	16,588	5,275	493	29	98,681	44,773	29,531	24,377
1969			195	697	43,181	24,918	12,861	2,369	12,027	3,555	708	3	100,514	52,090	30,917	17,507
1970				12,167	33,881	12,338	8,185	1,747	7,702	1,456	219	3	77,698	47,931	19,382	10,385
1971			0	1,104	25,089	19,265	13,364	873	8,960	1,593			70,248	32,638	26,606	11,004
1972				14,535	34,734	7,544	15,177	1,869	6,089	2,684			82,632	50,350	22,846	9,436
1973				34,277	23,627	10,925	4,254	840	6,657	1,241			81,821	60,639	12,829	8,353
Total		1	201	115,468	319,342	154,472	145,923	21,810	128,123	39,211	2,602	74	927,227	464,768	280,320	182,139
12-Year Average			17	9,622	26,612	12,873	12,160	1,817	10,677	3,268	217	6	77,269	38,731	23,360	15,178

TABLE 84

MONTHLY COUNT OF STEELHEAD TROUT
ICE HARBOR DAM - 1962 - 1973

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1962				8,758	716	261	2,384	7,450	75,924	20,303			115,796
1963				969	895	163	2,157	6,514	35,382	24,070	4,042	347	74,539
1964	105	136	796	2,269	807	153	1,596	9,462	34,435	7,357	1,347	397	58,860
1965	31	110	673	1,976	488	439	3,739	4,497	33,595	13,522	3,803		62,873
1966				2,161	810	413	1,383	2,517	40,185	18,329			65,798
1967				1,266	894	345	972	953	18,914	20,861			44,205
1968				2,558	2,933	357	952	8,107	45,552	17,270	3,692	962	82,383
1969	132	41	807	4,971	2,430	321	3,348	5,715	27,219	14,953	3,874	78	63,889
1970				1,597	1,067	389	2,620	7,611	30,101	8,290	1,891	304	53,870
1971			458	1,938	843	215	3,064	2,996	42,481	15,034			67,029
1972				1,853	553	152	3,062	6,503	34,134	17,336			63,593
1973				1,570	827	254	1,785	2,699	22,021	9,155			38,311
Total	268	287	2,734	31,886	13,263	3,462	27,062	65,024	439,943	186,480	18,649	2,088	791,146
12-Year Average	22	24	228	2,657	1,105	289	2,255	5,419	36,662	15,540	1,554	174	65,928

TABLE 85

YEARLY TOTALS OF SALMONIDS COUNTED OVER LOWER MONUMENTAL DAM

1969 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Total Salmon
1969	86,700	71,434	1,127	6,466	165,727
1970	73,310	62,167	240	2,972	138,689
1971	68,885	70,114	808	2,171	141,978
1972	72,220	66,857	415	733	140,225
1973	80,527	39,530	206	1,333	121,626
Total	381,672	310,102	2,796	13,675	708,245
5-Year Average	76,334	62,020	559	2,735	141,649

TABLE 86

MONTHLY TOTALS OF SALMONID AND SHAD COUNTED OVER LOWER MONUMENTAL DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CHINOOK	-	-	-	27,168	31,973	11,282	4,343	678	4,273	840	-	-	80,557
STEELHEAD	-	-	-	2,061	658	82	2,060	3,505	21,241	9,923	-	-	39,530
SOCKEYE	-	-	-	-	-	7	198	-	1	-	-	-	206
COHO	-	-	-	-	-	-	-	79	1,168	86	-	-	1,333
TOTAL SALMON		-	-	29,229	32,631	11,371	6,601	4,262	26,683	10,849	-	-	121,626
SHAD	-	-	-	-	-	876	3,098	60	2	-	-	-	4,036

TABLE 87
WATER TEMPERATURE AND STREAM FLOW DATA
LOWER MONUMENTAL - 1973

DATE	JANUARY			FEBRUARY			MARCH		
	WATER TEMP	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP.	STREAM FLOW	TURBIDITY
1	39	43,800	*	37	41,100	*	40	39,900	*
2	39	44,600		37	42,800		40	42,400	
3	39	42,900		37	35,600		40	45,300	
4	38	43,000		37	34,800		40	42,700	
5	37	41,900		37	39,500		40	42,100	
6	37	26,900		36	37,600		40	41,900	
7	37	35,200		36	39,700		40	39,200	
8	37	43,400		36	37,400		41	40,200	
9	36	36,200		36	33,300		41	40,600	
10	36	34,700		36	34,500		41	41,500	
11	35	36,200		36	27,400		42	38,600	
12	34	40,400		36	41,800		42	45,800	
13	34	50,500		36	31,500		42	47,500	
14	34	55,200		36	30,300		42	37,400	
15	34	47,100		36	37,400		42	30,000	
16	34	55,900		36	39,400		42	37,600	
17	34	64,500		36	43,000		42	29,300	
18	33	63,500		37	31,900		43	30,700	
19	33	60,400		37	40,600		43	29,100	
20	34	57,000		37	35,200		43	28,600	
21	34	59,300		37	36,800		44	36,300	
22	35	59,700		37	36,500		44	32,100	
23	36	44,000		37	34,400		44	28,200	
24	36	30,900		38	29,600		44	25,500	
25	37	44,800		39	30,100		44	29,200	
26	36	43,000		39	29,100		44	40,100	
27	36	42,100		39	32,300		45	40,600	
28	36	43,400		39	39,100		45	31,200	
29	37	52,300					45	35,700	
30	37	38,600					46	32,200	
31	37	35,500					46	33,500	

* Turbidity not available

MONTHLY FISH PASSAGE SUMMARY REPORT — LOWER MONUMENTAL PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 88 — APRIL 1973

TABLE 88

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	1	0	0	0	0	51	0	0	52	0	28,200	0	2.2	46
2	2	0	0	0	0	53	0	0	55	0	33,500	0	2.1	46
3	10	0	0	0	0	58	0	0	68	0	31,800	0	2.3	47
4	3	0	0	0	0	96	0	0	99	0	30,700	0	2.4	47
5	1	0	0	0	0	53	0	0	54	0	32,100	0	2.4	47
6	5	0	0	0	0	59	0	0	64	0	32,500	0	2.2	48
7	2	0	0	0	0	56	0	0	58	0	27,900	0	2.3	48
8	11	0	0	0	0	114	0	0	125	0	20,700	0	2.2	48
9	12	0	0	0	0	60	0	0	72	0	38,700	0	2.2	48
10	25	0	0	0	0	100	0	0	125	0	40,000	0	2.0	48
11	22	0	0	0	0	69	0	0	91	0	30,700	0	2.4	48
12	71	0	0	0	0	83	0	0	154	0	31,800	0	2.7	48
13	140	0	0	0	0	56	0	0	196	0	33,600	0	2.6	48
14	336	0	0	0	0	128	0	0	464	0	22,600	0	2.7	49
15	227	0	0	0	0	55	0	0	282	0	33,600	0	2.8	49
16	312	0	0	0	0	82	0	0	394	0	40,100	0	2.1	50
17	235	0	0	0	0	86	0	0	321	0	40,800	0	2.0	50
18	287	0	0	0	0	87	0	0	374	0	37,300	0	1.9	50
19	1,681	0	0	0	0	98	0	0	1,779	0	40,300	0	2.4	50
20	1,248	0	0	0	0	61	0	0	1,309	0	44,500	0	2.2	50
21	1,732	0	0	0	0	73	0	0	1,805	0	30,300	0	2.5	50
22	1,682	0	0	0	0	45	0	0	1,727	0	33,900	0	2.6	50
23	831	0	0	0	0	42	0	0	873	0	41,500	0	2.8	50
24	1,522	0	0	0	0	45	0	0	1,567	0	35,900	0	2.6	51
25	2,625	0	0	0	0	50	0	0	2,675	0	35,100	0	2.2	51
26	2,396	0	0	0	0	72	0	0	2,468	0	45,800	100	3.0	51
27	3,751	0	0	0	0	75	0	0	3,826	0	37,600	0	3.0	51
28	2,141	0	0	0	0	45	0	0	2,186	0	35,400	0	2.6	51
29	1,719	0	0	0	0	49	0	0	1,768	0	37,500	0	2.8	51
30	4,138	0	0	0	0	60	0	0	4,198	0	40,300	900	3.0	52
TOTALS	27,168	0	0	0	0	2,061	0	0	29,229	0				

MONTHLY FISH PASSAGE SUMMARY REPORT

LOWER MONUMENTAL PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 89

MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	3,937	0	0	0	0	42	0	0	3,979	0	41,600	1,300	3.0	52
2	1,623	0	0	0	0	50	0	0	1,673	0	47,500	1,900	3.0	53
3	1,235	0	0	0	0	29	0	0	1,264	0	37,800	1,800	2.6	53
4	2,867	0	0	0	0	36	0	0	2,903	0	36,200	2,200	2.8	53
5	1,455	0	0	0	0	37	0	0	1,492	0	43,100	1,900	3.2	54
6	5,075	0	0	0	0	49	0	0	5,124	0	44,200	1,100	3.0	55
7	2,974	0	0	0	0	44	0	0	3,018	0	46,700	800	3.0	55
8	1,554	0	0	0	0	42	0	0	1,596	0	48,000	0	2.2	55
9	1,918	0	0	0	0	34	0	0	1,952	0	48,800	0	1.7	55
10	1,925	0	0	0	0	49	0	0	1,974	0	58,100	0	1.4	55
11	1,109	0	0	0	0	31	0	0	1,140	0	58,600	0	2.4	55
12	771	0	0	0	0	31	0	0	802	0	41,500	0	2.8	55
13	592	0	0	0	0	16	0	0	608	0	37,600	0	3.0	56
14	333	0	0	0	0	13	0	0	346	0	48,400	0	3.4	57
15	254	0	0	0	0	17	0	0	271	0	57,700	1,000	3.4	58
16	425	0	0	0	0	18	0	0	443	0	59,600	1,900	3.3	58
17	460	0	0	0	0	23	0	0	483	0	68,400	2,100	3.4	58
18	600	0	0	0	0	21	0	0	621	0	87,400	23,900	2.9	58
19	418	0	0	0	0	16	0	0	434	0	92,900	28,500	2.8	58
20	383	0	0	0	0	16	0	0	399	0	88,600	22,900	2.0	58
21	319	0	0	0	0	7	0	0	326	0	87,900	22,600	1.6	58
22	187	0	0	0	0	10	0	0	197	0	79,000	13,900	2.4	58
23	276	0	0	0	0	2	0	0	278	0	71,100	6,200	1.8	58
24	151	0	0	0	0	1	0	0	152	0	74,100	9,300	2.4	58
25	183	0	0	0	0	8	0	0	191	0	79,200	14,400	1.4	58
26	189	0	0	0	0	4	0	0	193	0	86,300	21,100	1.6	58
27	142	0	0	0	0	3	0	0	145	0	73,100	7,700	2.0	58
28	120	0	0	0	0	0	0	0	120	0	63,100	0	2.2	57
29	171	0	0	0	0	4	0	0	175	0	64,100	500	2.8	56
30	199	0	0	0	0	2	0	0	201	0	69,000	4,900	2.7	56
31	128	0	0	0	0	3	0	0	131	0	61,300	1,200	3.4	57
TOTALS	31,973	0	0	0	0	658	0	0	32,631	0				

TABLE 89

MONTHLY FISH PASSAGE SUMMARY REPORT — LOWER MONUMENTAL PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 90 — JUNE 1973

TABLE 90

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	161	0	0	0	0	2	0	0	163	0	65,300	0	2.4	56
2	127	0	0	0	0	2	0	0	129	0	65,400	0	2.2	56
3	160	0	0	0	0	3	0	0	163	0	65,200	0	2.4	56
4	116	0	0	0	0	5	0	0	121	0	59,500	0	3.5	56
5	180	0	0	0	0	4	0	0	184	0	59,100	0	4.0	57
6	132	0	0	0	0	4	0	0	136	0	59,700	0	4.4	59
7	320	0	0	0	0	1	0	0	321	1	53,900	0	3.4	60
8	380	0	0	0	0	1	0	0	381	0	56,300	0	3.0	60
9	214	0	0	0	0	1	0	0	215	0	55,300	0	3.0	60
10	343	0	0	0	0	1	0	0	344	0	60,200	0	2.7	59
11	339	0	0	0	0	4	0	0	343	2	56,500	0	3.2	59
12	596	0	0	0	0	1	0	0	597	8	48,000	0	3.8	60
13	506	0	0	0	0	2	0	0	510	0	46,400	0	4.0	60
14	0	476	0	0	0	0	0	0	476	2	51,600	0	3.4	61
15	0	518	0	0	0	1	0	0	519	0	49,000	0	3.6	61
16	0	214	0	0	0	2	0	0	216	0	62,600	0	2.9	61
17	0	379	0	0	0	2	0	0	381	0	58,500	0	1.4	61
18	0	452	0	0	0	3	0	0	455	0	55,700	0	1.2	60
19	0	863	0	0	0	2	0	0	865	0	55,300	0	2.4	61
20	0	833	0	0	0	3	0	0	836	24	53,900	0	2.7	62
21	0	733	0	0	0	4	0	0	737	15	46,800	0	3.4	62
22	0	377	0	0	0	0	0	0	377	27	49,200	0	4.0	62
23	0	485	0	0	0	2	0	0	487	2	51,800	0	2.0	61
24	0	322	0	0	0	4	0	0	326	16	46,500	0	2.4	61
25	0	345	0	0	0	0	0	0	345	10	42,800	0	3.1	61
26	0	441	0	0	1	3	0	0	445	10	45,900	0	3.0	61
27	0	332	0	0	0	4	0	0	336	82	50,000	0	3.4	61
28	0	364	0	0	0	6	0	0	370	194	44,000	0	4.0	62
29	0	272	0	0	5	6	0	0	283	272	45,500	0	4.0	62
30	0	300	0	0	1	9	0	0	310	211	36,600	0	4.0	62
TOTALS	3,576	7,706	0	0	7	82	0	0	11,371	876				

MONTHLY FISH PASSAGE SUMMARY REPORT — LOWER MONUMENTAL PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 91 — JULY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	304	0	0	1	3	0	0	308	192	25,000	0	3.0	63
2	0	209	0	0	2	2	0	0	213	378	35,100	0	3.2	63
3	0	235	0	0	4	3	0	0	242	137	30,500	0	3.0	63
4	0	260	0	0	9	4	0	0	273	122	22,100	0	3.4	63
5	0	278	0	0	5	5	0	0	288	135	37,100	0	3.4	63
6	0	286	0	0	9	4	0	0	299	257	36,100	0	3.6	64
7	0	295	0	0	15	25	0	0	336	108	29,900	0	3.8	66
8	0	204	0	0	25	24	0	0	253	134	18,800	0	3.8	66
9	0	201	0	0	10	41	0	0	252	106	40,400	0	3.9	66
10	0	160	0	0	20	43	0	0	223	185	32,200	0	3.8	66
11	0	224	0	0	19	64	0	0	307	95	26,900	0	4.0	66
12	0	136	0	0	17	34	0	0	187	73	30,000	0	5.0	66
13	0	153	0	0	11	51	0	0	215	108	20,600	0	5.0	67
14	0	75	0	0	4	41	0	0	120	47	22,100	0	5.0	68
15	0	93	0	0	5	43	0	0	141	47	14,900	0	5.0	68
16	0	70	0	0	7	50	0	0	127	175	27,500	0	5.0	68
17	0	148	0	0	8	94	0	0	250	86	18,800	0	5.0	68
18	0	119	0	0	3	81	0	0	203	67	22,800	0	5.0	68
19	0	50	0	0	2	77	0	0	129	93	21,300	0	5.0	68
20	0	94	0	0	5	80	0	0	179	113	22,800	0	4.0	68
21	0	95	0	0	4	86	0	0	185	44	15,600	0	3.8	68
22	0	72	0	0	5	156	0	0	233	44	12,200	0	5.0	68
23	0	92	0	0	3	251	0	0	346	45	21,000	0	5.0	68
24	0	111	0	0	2	134	0	0	247	43	14,500	0	5.0	68
25	0	91	0	0	0	155	0	0	246	36	19,600	0	5.0	69
26	0	81	0	0	1	118	0	0	200	79	22,500	0	5.0	69
27	0	73	0	0	0	102	0	0	175	71	24,600	0	5.0	69
28	0	43	0	0	0	58	0	0	101	24	23,100	0	5.0	69
29	0	17	0	0	1	38	0	0	56	30	15,100	0	5.0	70
30	0	22	0	0	0	83	0	0	105	10	31,500	0	5.0	70
31	0	52	0	0	0	110	0	0	162	14	19,300	0	5.0	70
TOTALS	0	4,343	0	0	198	2,060	0	0	6,601	3,098				

TABLE 92

MONTHLY FISH PASSAGE SUMMARY REPORT — LOWER MONUMENTAL PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 92 — AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	26	0	0	0	67	0	0	93	10	21,400	0	5.0	70
2	0	48	0	0	0	135	0	0	183	13	30,500	0	5.0	70
3	0	35	0	0	0	169	0	0	204	6	20,300	0	5.0	70
4	0	15	0	0	0	116	0	0	131	2	15,500	0	5.0	70
5	0	15	0	0	0	132	0	0	147	2	11,900	0	5.0	71
6	0	30	0	0	0	243	0	0	273	2	27,500	0	5.0	71
7	0	58	0	0	0	234	0	0	292	1	18,300	0	5.0	70
8	0	38	0	0	0	213	0	0	251	6	17,000	0	5.0	72
9	0	26	0	0	0	182	0	0	208	1	19,600	0	5.0	71
10	0	28	0	0	0	189	0	0	217	0	18,700	0	4.8	70
11	0	14	0	0	0	156	0	0	170	1	13,000	0	5.0	70
12	0	14	0	4	0	50	0	0	68	6	12,600	0	5.0	71
13	0	7	0	7	0	84	0	0	98	1	18,700	0	5.0	71
14	0	0	10	0	0	64	0	0	74	0	18,100	0	5.0	72
15	0	0	17	3	0	55	0	0	75	0	19,500	0	5.0	72
16	0	0	18	1	0	82	0	0	101	0	15,600	0	5.0	72
17	0	0	17	7	0	166	0	0	190	0	20,900	0	5.0	72
18	0	0	20	9	0	80	0	0	109	0	19,600	0	5.0	72
19	0	0	20	5	0	78	0	0	103	0	11,700	0	4.2	72
20	0	0	15	3	0	66	0	0	84	1	18,900	0	4.6	72
21	0	0	22	5	0	82	0	0	109	6	24,700	0	4.4	71
22	0	0	18	4	0	108	0	0	130	0	18,400	0	4.8	71
23	0	0	21	2	0	58	0	0	81	1	22,200	0	3.4	71
24	0	0	23	0	0	104	0	0	127	0	19,000	0	2.8	71
25	0	0	19	0	0	32	0	0	51	1	15,700	0	2.4	71
26	0	0	18	3	0	51	0	0	72	0	14,500	0	3.0	71
27	0	0	18	2	0	56	0	0	76	0	24,700	0	3.2	70
28	0	0	4	5	0	82	0	0	91	0	16,400	0	2.2	70
29	0	0	12	6	0	87	0	0	105	0	21,300	0	3.3	70
30	0	0	20	8	0	153	0	0	181	0	13,600	0	3.0	70
31	0	0	32	5	0	131	0	0	168	0	21,500	0	2.4	70
TOTALS	0	354	324	79	0	3,505	0	0	4,262	60				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 93

LOWER MONUMENTAL PROJECT

SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	23	6	0	78	0	0	107	0	12,400	0	1.8	70
2	0	0	17	9	0	128	0	0	154	0	12,300	0	3.0	70
3	0	0	10	4	0	118	0	0	132	0	15,500	0	3.2	69
4	0	0	17	5	0	156	0	0	178	0	25,700	0	3.4	69
5	0	0	27	16	0	153	0	0	196	0	26,100	0	4.0	69
6	0	0	37	15	0	194	0	0	246	0	35,700	0	3.8	68
7	0	0	65	65	0	440	0	0	570	0	32,200	0	3.6	68
8	0	0	72	63	0	491	0	0	626	0	22,800	0	3.2	68
9	0	0	69	63	0	587	0	0	719	0	15,400	0	3.4	68
10	0	0	65	35	0	427	0	0	527	0	21,000	0	3.4	68
11	0	0	68	33	0	527	0	0	628	0	24,000	0	4.6	67
12	0	0	100	55	0	577	0	0	732	0	24,300	0	4.6	67
13	0	0	169	59	0	647	0	0	875	0	25,500	0	5.0	67
14	0	0	275	85	0	986	0	0	1,346	0	29,200	0	5.0	67
15	0	0	515	95	0	1,456	0	0	2,066	0	28,700	0	4.4	67
16	0	0	460	53	0	1,536	0	0	2,049	0	17,800	0	3.4	67
17	0	0	390	32	0	814	0	0	1,236	0	24,000	0	3.2	66
18	0	0	370	65	0	1,296	0	0	1,731	0	32,200	0	5.0	66
19	0	0	226	56	0	1,032	0	0	1,314	2	23,000	0	5.0	66
20	0	0	220	65	0	1,055	0	0	1,340	0	28,500	0	5.0	66
21	0	0	380	113	0	2,658	0	0	3,151	0	26,400	0	5.0	65
22	0	0	71	14	0	820	0	0	905	0	27,400	0	5.0	65
23	0	0	134	46	0	857	0	0	1,037	0	19,500	0	5.0	65
24	0	0	151	17	0	1,336	0	0	1,504	0	29,100	0	2.6	65.0
25	0	0	95	24	0	586	0	0	705	0	31,400	0	3.0	65.0
26	0	0	66	20	0	466	0	0	552	0	30,400	0	2.0	65.0
27	0	0	46	13	0	392	0	0	451	0	31,600	0	3.2	64.0
28	0	0	48	15	0	450	0	0	513	0	36,000	0	4.4	64.0
29	0	0	43	13	1	466	0	0	523	0	31,500	0	4.6	64.0
30	0	0	44	14	0	512	0	0	570	0	24,300	0	4.6	64.0
TOTALS	0	0	4,273	1,168	1	21,241	0	0	26,683	2				

MONTHLY FISH PASSAGE SUMMARY REPORT — LOWER MONUMENTAL PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 94 — OCTOBER 1973

TABLE 94

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	56	14	0	571	0	0	641	0	34,200	0	4.4	63.0
2	0	0	80	12	0	564	0	0	656	0	25,100	0	2.2	63.0
3	0	0	38	4	0	399	0	0	441	0	26,800	0	1.8	62
4	0	0	35	12	0	450	0	0	497	0	32,200	0	1.6	62
5	0	0	39	3	0	539	0	0	581	0	25,700	0	1.8	62
6	0	0	36	2	0	352	0	0	390	0	22,000	0	3.5	61
7	0	0	50	7	0	435	0	0	492	0	20,300	0	3.0	60
8	0	0	35	5	0	668	0	0	708	0	21,600	0	2.4	60
9	0	0	46	7	0	428	0	0	481	0	19,100	0	2.5	60
10	0	0	23	7	0	352	0	0	382	0	26,200	0	2.6	60.0
11	0	0	29	2	0	337	0	0	368	0	23,200	0	2.5	59.0
12	0	0	30	1	0	393	0	0	424	0	21,600	0	2.4	59.0
13	0	0	35	1	0	379	0	0	415	0	19,600	0	2.4	58.0
14	0	0	18	2	0	327	0	0	347	0	16,600	0	2.4	58.0
15	0	0	24	0	0	288	0	0	312	0	32,000	0	4.0	58.0
16	0	0	17	3	0	401	0	0	421	0	24,500	0	4.0	58.0
17	0	0	24	0	0	235	0	0	259	0	35,200	0	2.4	58.0
18	0	0	16	0	0	243	0	0	259	0	19,600	0	4.2	58.0
19	0	0	18	0	0	275	0	0	293	0	20,600	0	4.8	58.0
20	0	0	11	0	0	233	0	0	244	0	21,800	0	4.2	58.0
21	0	0	14	1	0	223	0	0	238	0	26,800	0	4.4	58.0
22	0	0	21	0	0	215	0	0	236	0	33,200	0	4.2	57.0
23	0	0	23	1	0	192	0	0	216	0	17,500	0	3.6	57.0
24	0	0	10	0	0	286	0	0	296	0	27,800	0	3.4	57.0
25	0	0	34	0	0	304	0	0	338	0	10,100	0	3.0	57.0
26	0	0	15	1	0	165	0	0	181	0	22,000	0	3.0	56.0
27	0	0	13	0	0	158	0	0	171	0	22,900	0	3.5	56.0
28	0	0	13	0	0	126	0	0	139	0	24,300	0	3.6	56.0
29	0	0	19	0	0	171	0	0	190	0	22,600	0	4.0	56.0
30	0	0	13	0	0	181	0	0	194	0	23,000	0	4.0	56.0
31	0	0	5	1	0	33	0	0	39	0	30,800	0	3.8	59.0
TOTALS	0	0	840	86	0	9,923	0	0	10,849	0				

END OF COUNTING SEASON

TABLE 95

WATER TEMPERATURE AND STREAM FLOW DATA
LOWER MONUMENTAL - 1973

DATE	NOVEMBER			DECEMBER		
	WATER TEMP.	STREAM FLOW	TURBIDITY	WATER TEMP	STREAM FLOW	TURBIDITY
1	55	33,400		45	43,300	2.4
2	55	32,500		45	44,500	2.9
3	54	35,300		45	45,700	2.5
4	53	27,700		44	44,800	2.8
5	53	26,900		44	43,700	3.4
6	52	21,100		44	42,700	3.3
7	52	20,600		43	42,400	2.9
8	52	27,300		43	41,900	2.7
9	52	26,500		43	52,800	2.5
10	51	31,800		43	46,900	2.7
11	51	34,000		43	46,200	1.3
12	51	47,000		43	43,600	1.2
13	50	64,300		43	43,800	1.0
14	49	64,200		43	43,800	1.0
15	48	60,700		43	43,500	1.4
16	48	55,700		43	43,700	1.7
17	48	48,100		43	42,900	2.0
18	47	54,500		43	54,400	1.8
19	47	51,300		42	60,200	1.7
20	47	42,500		42	54,500	1.3
21	47	40,800	1.6	42	57,900	1.3
22	46	35,800	1.5	42	62,700	1.3
23	46	37,000	1.6	42	56,400	0.4
24	45	35,300	1.9	42	63,400	0.4
25	45	33,100	2.3	42	58,500	0.5
26	45	37,600	2.5	42	58,100	0.4
27	45	39,100	3.3	42	57,800	0.5
28	45	32,900	2.5	41	64,200	0.4
29	45	36,800	3.2	41	57,800	0.3
30	45	38,800	2.7	41	42,000	0.3
31				41	41,200	0.5

TABLE 96

PEAK DAYS OF MIGRATION 1969- 1973
LOWER MONUMENTAL DAM

	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho	
Year	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1969	May 17	2,915	June 26	1,630	Sep 24	899	Sep 24	2,680	Jul 11	64	Sep 17	572
1970	May 3	4,472	June 16	1,054	Sep 20	512	Sep 20	3,588	Jul 15	23	Sep 13	181
1971	May 27	2,275	June 17	1,180	Sep 16	673	Sep 26	2,557	Jul 18	65	Sep 12	189
1972	May 3	3,531	July 6	1,445	Sep 19	296	Sep 30	2,936	Jul 19	28	Sep 20	53
1973	May 6	5,075	June 19	863	Sep 15	515	Sep 21	2,658	Jul 8	25	Sep 21	113
Total		18,268		6,172		2,895		14,419		205		1,108
5-Year Average		3,654		1,234		579		2,883		41		222

TABLE 97

MONTHLY TOTALS OF CHINOOK COUNTED OVER
LOWER MONUMENTAL DAM
1969-1973

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1969	-	-	1	67	38,702	25,289	13,832	1,776	5,069	1,619	340	5	86,700
1970	1	-	1	9,194	32,623	15,818	9,369	1,720	5,178	1,281	122	3	75,310
1971	-	-	-	358	19,340	23,842	14,492	857	8,599	1,397	-	-	68,885
1972				6,838	36,448	6,989	15,501	1,835	3,737	872	-	-	72,220
1973	-	-	-	27,168	31,973	11,282	4,343	678	4,273	840	-	-	80,557
Total	1	-	2	43,625	159,086	83,220	57,537	6,866	26,856	6,009	462	8	383,672
5-Year Average				8,725	31,817	16,644	11,507	1,373	5,371	1,201	92	2	76,734

TABLE 98

TABLE 98

MONTHLY COUNT OF STEELHEAD TROUT
LOWER MONUMENTAL DAM - 1969-1973

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1969	-	5	1,585	9,235	5,475	248	2,141	6,410	26,647	15,195	4,187	366	71,434
1970	252	1,025	1,519	3,143	2,134	232	1,989	7,947	30,701	11,194	1,615	416	62,167
1971	-	-	422	2,404	1,510	131	2,199	2,992	42,438	18,018	-	-	70,114
1972	-	-	-	2,182	744	86	2,336	7,184	32,417	21,908	-	-	66,857
1973	-	-	-	2,061	658	82	2,060	3,505	21,241	9,923	-	-	39,530
Total	252	1,030	3,466	19,025	10,521	779	10,715	28,038	153,444	76,238	5,802	782	310,092
5-Year Average	50	206	692	3,805	2,104	156	2,143	5,608	30,689	15,248	1,160	156	62,018

TABLE 99

YEARLY TOTALS OF SALMONIDS COUNTED OVER LITTLE GOOSE DAM

1970 - 1973

Year	Chinook	Steelhead	Sockeye	Coho	Total Salmon
1970	72,971	59,640	163	2,480	135,254
1971	61,402	70,013	891	2,701	135,007
1972	64,211	63,638	408	799	129,056
1973	70,605	38,820	192	1,157	110,774
Total	269,189	232,111	1,654	7,137	510,091
4-Year Average	67,297	58,028	413	1,784	127,523

TABLE 100

TABLE 100

MONTHLY TOTALS OF SALMONIDS COUNTED OVER LITTLE GOOSE DAM

1973

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Chinook	-	-	-	17,490	34,570	10,661	4,344	520	2,472	528	19	1	70,605
Steelhead	133	80	1,039	2,051	829	65	1,249	2,856	16,650	12,420	1,129	319	38,820
Sockeye	-	-	-	-	-	23	167	2	-	-	-	-	192
Coho	-	-	-	-	-	-	-	45	911	201	-	-	1,157
Total Salmon	133	80	1,039	19,541	35,399	10,749	5,760	3,423	20,033	13,149	1,148	320	110,774
Shad	-	-	-	-	-	-	14	13	-	-	-	-	27

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 101

LITTLE GOOSE PROJECT

JANUARY 1973

	FISH COUNTS*								RIVER CONDITIONS			
DATE	CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUMS	PINKS	TOTAL SALMONIDS	SHAD	DISCHARGE, CFS	SPILL, CFS	TURBIDITY, SEECHI UNITS	WATER TEMP., DEG. F.
1	0	0	0	0	0	0	0	0	41,200	0	0.6	39
2	0	0	0	22	0	0	22	0	45,300	0	2.6	39
3	0	0	0	13	0	0	13	0	37,900	0	2.6	39
4	0	0	0	10	0	0	10	0	46,900	0	2.9	39
5	0	0	0	6	0	0	6	0	40,300	0	2.9	37
6	0	0	0	4	0	0	4	0	26,900	0	3.0	36
7	0	0	0	5	0	0	5	0	34,400	0	3.0	36
8	0	0	0	2	0	0	2	0	38,900	0	3.1	35
9	0	0	0	0	0	0	0	0	36,300	0	4.0	34
10	0	0	0	0	0	0	0	0	36,900	0	4.0	33
11	0	0	0	2	0	0	2	0	34,700	0	4.2	34
12	0	0	0	1	0	0	1	0	40,200	0	4.4	34
13	0	0	0	0	0	0	0	0	42,200	0	4.5	33
14	0	0	0	0	0	0	0	0	40,600	0	4.8	32
15	0	0	0	1	0	0	1	0	44,000	0	4.6	32
16	0	0	0	0	0	0	0	0	52,300	8,400	4.5	32
17	0	0	0	0	0	0	0	0	60,900	17,400	4.0	32
18	0	0	0	0	0	0	0	0	58,200	14,800	0.8	33
19	0	0	0	0	0	0	0	0	58,400	8,600	0.7	35
20	0	0	0	5	0	0	5	0	56,100	0	0.9	36
21	0	0	0	1	0	0	1	0	57,800	0	0.9	36
22	0	0	0	4	0	0	4	0	59,500	0	0.9	36
23	0	0	0	5	0	0	5	0	45,000	0	1.0	37
24	0	0	0	7	0	0	7	0	23,200	3,400	1.4	37
25	0	0	0	18	0	0	18	0	43,000	0	1.9	37
26	0	0	0	11	0	0	11	0	46,200	0	2.2	37
27	0	0	0	10	0	0	10	0	42,100	0	2.5	37
28	0	0	0	4	0	0	4	0	41,200	0	2.6	36
29	0	0	0	2	0	0	2	0	48,700	0	2.7	36
30	0	0	0	0	0	0	0	0	39,900	0	2.8	36
31	0	0	0	0	0	0	0	0	36,100	0	2.8	36
TOTALS	0	0	0	133	0	0	133	0				

*JACK SALMONIDS ARE INCLUDED.

TABLE 101

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 102 — FEBRUARY 1973

TABLE 102

	FISH COUNTS*								RIVER CONDITIONS			
DATE	CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUMS	PINKS	TOTAL SALMONIDS	SHAD	DISCHARGE, CFS	SPILL, CFS	TURBIDITY, SEECHI UNITS	WATER TEMP., DEG. F.
1	0	0	0	0	0	0	0	0	38,900	0	2.8	36
2	0	0	0	0	0	0	0	0	43,300	0	2.8	36
3	0	0	0	4	0	0	4	0	34,000	0	5.0	36
4	0	0	0	5	0	0	5	0	32,400	0	5.0	36
5	0	0	0	2	0	0	2	0	38,400	0	5.0	36
6	0	0	0	7	0	0	7	0	37,300	0	5.0	36
7	0	0	0	0	0	0	0	0	39,800	0	5.0	36
8	0	0	0	1	0	0	1	0	34,800	0	4.9	36
9	0	0	0	4	0	0	4	0	35,200	0	4.9	36
10	0	0	0	1	0	0	1	0	35,100	0	4.7	36
11	0	0	0	5	0	0	5	0	26,300	0	4.7	36
12	0	0	0	1	0	0	1	0	40,000	0	4.6	36
13	0	0	0	5	0	0	5	0	32,400	0	4.5	36
14	0	0	0	0	0	0	0	0	29,700	0	4.1	36
15	0	0	0	1	0	0	1	0	38,700	0	3.9	36
16	0	0	0	2	0	0	2	0	40,600	0	3.4	36
17	0	0	0	4	0	0	4	0	40,400	0	3.4	37
18	0	0	0	2	0	0	2	0	32,200	0	3.4	37
19	0	0	0	7	0	0	7	0	39,800	0	3.4	37
20	0	0	0	5	0	0	5	0	33,300	0	3.4	37
21	0	0	0	0	0	0	0	0	35,900	0	3.4	37
22	0	0	0	0	0	0	0	0	36,700	0	3.5	38
23	0	0	0	0	0	0	0	0	33,100	0	2.6	39
24	0	0	0	4	0	0	4	0	28,800	0	2.5	39
25	0	0	0	4	0	0	4	0	29,100	0	2.5	39
26	0	0	0	1	0	0	1	0	28,700	0	2.7	40
27	0	0	0	8	0	0	8	0	31,500	0	2.9	39
28	0	0	0	7	0	0	7	0	38,700	0	3.0	39
TOTALS	0	0	0	80	0	0	80	0				

*JACK SALMONIDS ARE INCLUDED.

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 103 — MARCH 1973

	FISH COUNTS*								RIVER CONDITIONS			
DATE	CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUMS	PINKS	TOTAL SALMONIDS	SHAD	DISCHARGE, CFS	SPILL, CFS	TURBIDITY, SECCHI UNITS	WATER TEMP., DEG. F.
1	0	0	0	2	0	0	2	0	38,500	0	2.9	39
2	0	0	0	10	0	0	10	0	41,500	0	3.0	39
3	0	0	0	8	0	0	8	0	44,200	0	2.9	40
4	0	0	0	13	0	0	13	0	41,600	0	2.9	40
5	0	0	0	46	0	0	46	0	40,900	0	2.6	41
6	0	0	0	14	0	0	14	0	41,500	0	2.5	41
7	0	0	0	26	0	0	26	0	37,500	0	3.0	41
8	0	0	0	78	0	0	78	0	39,600	0	1.7	42
9	0	0	0	36	0	0	36	0	39,900	0	1.6	42
10	0	0	0	71	0	0	71	0	40,000	0	2.5	42
11	0	0	0	59	0	0	59	0	36,800	0	2.5	42
12	0	0	0	30	0	0	30	0	45,500	0	2.6	42
13	0	0	0	17	0	0	17	0	48,200	0	2.9	43
14	0	0	0	8	0	0	8	0	32,500	0	3.0	43
15	0	0	0	6	0	0	6	0	30,100	0	3.2	43
16	0	0	0	8	0	0	8	0	34,200	0	3.5	43
17	0	0	0	37	0	0	37	0	29,400	0	3.5	43
18	0	0	0	26	0	0	26	0	29,500	0	3.4	43
19	0	0	0	23	0	0	23	0	30,300	0	3.4	44
20	0	0	0	23	0	0	23	0	27,200	0	3.3	44
21	0	0	0	35	0	0	35	0	37,100	0	3.5	44
22	0	0	0	30	0	0	30	0	31,100	0	3.5	44
23	0	0	0	36	0	0	36	0	27,200	0	4.0	44
24	0	0	0	71	0	0	71	0	25,200	0	4.0	45
25	0	0	0	78	0	0	78	0	27,000	0	4.1	45
26	0	0	0	44	0	0	44	0	41,100	0	4.1	46
27	0	0	0	34	0	0	34	0	37,100	0	4.0	46
28	0	0	0	61	0	0	61	0	23,800	0	3.9	46
29	0	0	0	36	0	0	36	0	35,200	0	3.8	46
30	0	0	0	24	0	0	24	0	31,600	0	3.8	47
31	0	0	0	49	0	0	49	0	31,400	0	3.8	47
TOTALS	0	0	0	1,039	0	0	1,039	0				

*JACK SALMONIDS ARE INCLUDED.

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 104 — APRIL 1973

TABLE 104

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	1	0	0	0	0	56	0	0	57	0	29,100	0	3.6	48
2	0	0	0	0	0	46	0	0	46	0	32,700	0	3.6	48
3	0	0	0	0	0	61	0	0	61	0	30,200	0	3.6	48
4	2	0	0	0	0	86	0	0	88	0	30,900	0	3.6	48
5	2	0	0	0	0	92	0	0	94	0	30,700	0	3.6	47
6	3	0	0	0	0	74	0	0	77	0	31,300	0	3.6	47
7	2	0	0	0	0	57	0	0	59	0	28,300	0	3.5	47
8	5	0	0	0	0	66	0	0	71	0	26,300	0	3.5	47
9	0	0	0	0	0	55	0	0	55	0	37,700	0	3.5	48
10	1	0	0	0	0	92	0	0	93	0	32,700	0	3.6	48
11	9	0	0	0	0	107	0	0	116	0	29,700	0	3.6	48
12	14	0	0	0	0	66	0	0	80	0	32,600	0	3.5	49
13	7	0	0	0	0	82	0	0	89	0	32,100	0	3.6	50
14	48	0	0	0	0	96	0	0	144	0	26,400	0	3.7	49
15	33	0	0	0	0	63	0	0	96	0	34,400	0	3.7	50
16	51	0	0	0	0	97	0	0	148	0	38,400	0	3.7	50
17	298	0	0	0	0	103	0	0	401	0	39,500	0	3.6	49
18	275	0	0	0	0	87	0	0	362	0	36,500	0	3.4	50
19	206	0	0	0	0	66	0	0	272	0	34,400	0	3.4	51
20	641	0	0	0	0	110	0	0	751	0	42,300	0	3.5	52
21	599	0	0	0	0	74	0	0	673	0	33,000	0	3.4	51
22	390	0	0	0	0	41	0	0	431	0	38,400	0	3.5	50
23	1,630	0	0	0	0	65	0	0	1,695	0	39,300	0	3.4	51
24	305	0	0	0	0	50	0	0	355	0	35,700	0	3.5	50
25	1,250	0	0	0	0	45	0	0	1,295	0	35,600	0	3.5	50
26	3,119	0	0	0	0	62	0	0	3,181	0	39,500	0	3.5	50
27	1,211	0	0	0	0	43	0	0	1,254	0	39,700	0	3.8	50
28	2,478	0	0	0	0	41	0	0	2,519	0	37,000	0	3.8	50
29	1,965	0	0	0	0	41	0	0	2,006	0	34,500	0	3.7	51
30	2,945	0	0	0	0	27	0	0	2,972	0	40,300	0	3.8	52
TOTALS	17,490	0	0	0	0	2,051	0	0	19,541	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 105 — MAY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	3,415	0	0	0	0	67	0	0	3,482	0	40,900	0	3.8	53
2	3,286	0	0	0	0	72	0	0	3,358	0	45,100	0	3.9	54
3	2,946	0	0	0	0	44	0	0	2,990	0	38,300	0	4.0	54
4	2,230	0	0	0	0	39	0	0	2,269	0	38,700	0	4.2	54
5	1,469	0	0	0	0	47	0	0	1,516	0	42,000	0	4.5	54
6	1,382	0	0	0	0	82	0	0	1,464	0	48,500	0	4.6	55
7	3,024	0	0	0	0	58	0	0	3,082	0	42,500	0	4.4	55
8	2,527	0	0	0	0	17	0	0	2,544	0	46,500	0	4.3	55
9	998	0	0	0	0	11	0	0	1,009	0	51,000	0	3.8	55
10	2,694	0	0	0	0	10	0	0	2,704	0	57,500	0	3.3	55
11	1,619	0	0	0	0	52	0	0	1,671	0	55,100	0	3.5	55
12	2,353	0	0	0	0	64	0	0	2,417	0	43,000	0	3.6	55
13	553	0	0	0	0	36	0	0	589	0	36,100	0	4.0	55
14	741	0	0	0	0	26	0	0	767	0	47,000	0	4.0	56
15	386	0	0	0	0	24	0	0	410	0	57,600	0	4.0	56
16	740	0	0	0	0	39	0	0	779	0	59,400	0	3.9	56
17	567	0	0	0	0	26	0	0	593	0	75,400	10,300	4.0	58
18	250	0	0	0	0	16	0	0	266	0	91,100	25,200	3.5	59
19	553	0	0	0	0	16	0	0	569	0	92,200	28,500	3.5	60
20	760	0	0	0	0	18	0	0	778	0	92,300	30,100	3.0	59
21	222	0	0	0	0	7	0	0	229	0	87,500	21,900	3.0	58
22	215	0	0	0	0	15	0	0	230	0	81,500	17,000	3.0	58
23	205	0	0	0	0	10	0	0	215	0	71,000	4,400	3.0	57
24	267	0	0	0	0	11	0	0	278	0	73,800	7,500	3.1	56
25	284	0	0	0	0	7	0	0	291	0	81,500	15,800	2.9	55
26	361	0	0	0	0	4	0	0	365	0	86,900	19,600	2.7	55
27	88	0	0	0	0	6	0	0	94	0	73,000	6,000	2.7	55
28	120	0	0	0	0	5	0	0	125	0	62,300	0	2.8	55
29	80	0	0	0	0	0	0	0	80	0	65,500	0	3.3	56
30	91	0	0	0	0	0	0	0	91	0	65,900	0	3.6	56
31	144	0	0	0	0	0	0	0	144	0	63,300	0	3.6	56
TOTALS	34,570	0	0	0	0	829	0	0	35,399	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 106 — JUNE 1973

TABLE 106

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	228	0	0	0	0	1	0	0	229	0	64,500	0	3.8	56
2	118	0	0	0	0	5	0	0	123	0	64,200	0	3.9	56
3	117	0	0	0	0	0	0	0	117	0	61,900	0	3.9	57
4	53	0	0	0	0	1	0	0	54	0	57,900	0	3.9	58
5	81	0	0	0	0	2	0	0	83	0	61,300	0	3.9	57
6	98	0	0	0	0	1	0	0	99	0	53,100	0	4.1	59
7	457	0	0	0	0	6	0	0	463	0	53,700	0	4.6	60
8	567	0	0	0	0	0	0	0	567	0	55,900	0	4.5	60
9	264	0	0	0	0	0	0	0	264	0	54,700	0	4.5	60
10	76	0	0	0	0	1	0	0	77	0	63,600	0	4.5	60
11	171	0	0	0	0	0	0	0	171	0	54,200	0	4.5	60
12	285	0	0	0	0	3	0	0	288	0	46,600	0	4.7	60
13	393	0	0	0	0	2	0	0	395	0	44,500	0	4.7	60
14	192	0	0	0	0	1	0	0	193	0	54,100	0	4.7	60
15	269	0	0	0	0	0	0	0	269	0	48,000	0	4.6	61
16	0	615	0	0	0	1	0	0	616	0	58,600	0	4.4	61
17	0	512	0	0	0	0	0	0	512	0	58,200	0	4.3	61
18	0	298	0	0	0	1	0	0	299	0	54,300	0	3.7	61
19	0	223	0	0	0	0	0	0	223	0	53,000	0	4.1	60
20	0	342	0	0	1	1	0	0	344	0	50,300	0	4.9	59
21	0	485	0	0	0	0	0	0	485	0	52,500	0	4.9	60
22	0	839	0	0	0	0	0	0	839	0	48,800	0	4.7	58
23	0	434	0	0	0	2	0	0	436	0	45,500	0	4.5	60
24	0	1,616	0	0	0	7	0	0	1,623	0	44,100	0	4.6	60
25	0	127	0	0	0	3	0	0	130	0	47,400	0	4.5	60
26	0	194	0	0	0	3	0	0	197	0	40,200	0	4.6	61
27	0	561	0	0	2	6	0	0	569	0	50,800	0	4.6	62
28	0	205	0	0	4	4	0	0	213	0	43,800	0	4.6	65
29	0	518	0	0	5	6	0	0	529	0	45,000	0	5.0	64
30	0	323	0	0	11	8	0	0	342	0	36,600	0	5.0	65
TOTALS	3,369	7,292	0	0	23	65	0	0	10,749	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S ARMY ENGINEER DISTRICT, PORTLAND — TABLE 107 — JULY 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	404	0	0	6	6	0	0	416	0	28,600	0	4.7	65
2	0	144	0	0	1	9	0	0	154	0	36,400	0	4.7	66
3	0	90	0	0	1	1	0	0	92	0	27,300	0	4.9	66
4	0	212	0	0	1	3	0	0	216	0	24,000	0	5.0	66
5	0	247	0	0	6	15	0	0	268	0	36,300	0	5.0	66
6	0	262	0	0	7	15	0	0	284	0	35,000	0	4.8	66
7	0	192	0	0	8	3	0	0	203	0	29,200	0	4.9	66
8	0	309	0	0	13	9	0	0	331	0	16,200	0	5.0	67
9	0	192	0	0	10	13	0	0	215	0	38,100	0	5.0	67
10	0	216	0	0	11	27	0	0	254	0	29,600	0	5.0	67
11	0	273	0	0	14	42	0	0	329	0	27,500	0	5.0	68
12	0	70	0	0	7	22	0	0	99	0	27,100	0	5.0	68
13	0	285	0	0	8	43	0	0	336	0	20,800	0	5.0	69
14	0	280	0	0	8	52	0	0	340	0	21,700	0	5.0	68
15	0	53	0	0	10	40	0	0	103	0	15,400	0	5.0	68
16	0	62	0	0	6	30	0	0	98	0	27,200	0	5.0	68
17	0	232	0	0	13	63	0	0	308	0	19,000	0	5.0	68
18	0	98	0	0	6	35	0	0	139	0	21,900	0	5.0	68
19	0	31	0	0	3	31	0	0	65	0	21,400	0	5.0	68
20	0	38	0	0	9	48	0	0	95	0	22,600	0	5.0	70
21	0	90	0	0	8	75	0	0	173	0	16,700	0	5.0	70
22	0	228	0	0	3	118	0	0	349	0	12,700	0	5.0	70
23	0	46	0	0	1	64	0	0	111	0	22,000	0	5.0	70
24	0	49	0	0	5	81	0	0	135	0	16,600	0	5.0	70
25	0	43	0	0	2	41	0	0	86	0	21,700	0	5.0	70
26	0	31	0	0	0	44	0	0	75	0	21,000	0	5.0	70
27	0	64	0	0	0	76	0	0	140	2	26,100	0	5.0	70
28	0	37	0	0	0	52	0	0	89	5	23,400	0	5.0	70
29	0	38	0	0	0	50	0	0	88	6	15,200	0	5.0	70
30	0	8	0	0	0	26	0	0	34	0	27,300	0	5.0	70
31	0	20	0	0	0	115	0	0	135	1	19,500	0	5.0	70
TOTALS	0	4,344	0	0	157	1,249	0	0	5,760	14				

TABLE 108

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 108

LITTLE GOOSE PROJECT

AUGUST 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	32	0	0	0	47	0	0	79	4	21,600	0	5.0	70
2	0	23	0	0	0	46	0	0	69	0	25,300	0	5.0	70
3	0	30	0	0	0	61	0	0	91	0	18,700	0	5.0	70
4	0	18	0	0	0	114	0	0	132	0	15,700	0	5.0	70
5	0	102	0	0	0	253	0	0	355	0	11,800	0	5.0	71
6	0	54	0	0	1	161	0	0	216	0	28,800	0	5.0	71
7	0	14	0	0	1	50	0	0	65	0	17,700	0	5.0	71
8	0	9	0	0	0	50	0	0	59	0	17,600	0	5.0	72
9	0	2	0	0	0	72	0	0	74	0	18,800	0	5.0	74
10	0	5	0	0	0	108	0	0	113	1	21,300	0	5.0	73
11	0	18	0	0	0	118	0	0	136	0	13,200	0	5.0	74
12	0	3	0	0	0	58	0	0	61	0	12,600	0	5.0	74
13	0	9	0	0	0	56	0	0	65	0	17,600	0	5.0	74
14	0	20	0	5	0	152	0	0	177	1	18,200	0	5.0	74
15	0	12	0	0	0	87	0	0	99	0	19,100	0	5.0	73
16	0	0	26	0	0	213	0	0	239	0	15,400	0	5.0	73
17	0	0	16	5	0	169	0	0	190	2	20,000	0	5.0	72
18	0	0	29	7	0	199	0	0	235	1	20,500	0	5.0	72
19	0	0	4	4	0	65	0	0	73	1	12,400	0	5.0	72
20	0	0	5	0	0	61	0	0	66	0	19,100	0	5.0	72
21	0	0	11	1	0	83	0	0	95	0	24,700	0	5.0	73
22	0	0	11	2	0	111	0	0	124	0	18,500	0	5.0	72
23	0	0	4	0	0	43	0	0	47	1	22,900	0	5.0	72
24	0	0	12	1	0	84	0	0	97	0	18,900	0	5.0	70
25	0	0	12	0	0	81	0	0	93	2	16,100	0	5.0	70
26	0	0	18	1	0	63	0	0	82	0	15,200	0	5.0	70
27	0	0	4	0	0	50	0	0	54	0	23,500	0	5.0	70
28	0	0	8	8	0	55	0	0	71	0	13,100	0	4.9	69
29	0	0	4	4	0	48	0	0	56	0	18,700	0	5.0	70
30	0	0	4	4	0	61	0	0	69	0	18,400	0	5.0	70
31	0	0	1	3	0	37	0	0	41	0	23,300	0	4.8	69
TOTALS	0	351	169	45	2	2,856	0	0	3,423	13				

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 109 — SEPTEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	0	5	6	0	77	0	0	88	0	12,100	0	4.8	69
2	0	0	4	6	0	80	0	0	90	0	12,100	0	4.9	69
3	0	0	11	3	0	50	0	0	64	0	18,000	0	4.9	68
4	0	0	4	3	0	88	0	0	95	0	23,100	0	5.0	68
5	0	0	42	16	0	250	0	0	308	0	25,400	0	5.0	68
6	0	0	9	2	0	100	0	0	111	0	31,400	0	5.0	68
7	0	0	33	29	0	168	0	0	226	0	38,100	0	5.0	68
8	0	0	39	28	0	330	0	0	397	0	19,900	0	4.9	67
9	0	0	31	54	0	359	0	0	444	0	12,000	0	5.0	67
10	0	0	29	31	0	408	0	0	468	0	20,100	0	5.0	67
11	0	0	2	11	0	166	0	0	179	0	24,500	0	5.0	67
12	0	0	7	21	0	254	0	0	282	0	27,300	0	5.0	66
13	0	0	13	22	0	576	0	0	611	0	26,400	0	5.0	66
14	0	0	44	16	0	328	0	0	388	0	25,500	0	5.0	66
15	0	0	224	111	0	1,385	0	0	1,720	0	27,500	0	5.0	66
16	0	0	300	54	0	1,091	0	0	1,445	0	22,800	0	5.0	66
17	0	0	409	66	0	1,087	0	0	1,562	0	25,700	0	5.0	67
18	0	0	125	56	0	1,022	0	0	1,203	0	26,200	0	5.0	67
19	0	0	282	108	0	1,103	0	0	1,493	0	24,700	0	5.0	66
20	0	0	190	58	0	774	0	0	1,022	0	30,400	0	4.9	66
21	0	0	153	41	0	997	0	0	1,191	0	26,900	0	5.0	65
22	0	0	83	22	0	431	0	0	536	0	26,500	0	5.0	65
23	0	0	88	46	0	1,060	0	0	1,194	0	17,700	0	5.0	64
24	0	0	85	29	0	1,406	0	0	1,520	0	29,600	0	5.0	63
25	0	0	67	12	0	820	0	0	899	0	32,700	0	5.0	63
26	0	0	72	20	0	966	0	0	1,058	0	28,900	0	5.0	63
27	0	0	89	16	0	646	0	0	377	0	32,300	0	5.0	63
28	0	0	1	6	0	58	0	0	65	0	33,800	0	4.7	63.0
29	0	0	29	10	0	431	0	0	470	0	33,300	0	4.9	62.0
30	0	0	2	8	0	139	0	0	149	0	24,300	0	5.0	62.0
TOTALS	0	0	2,472	911	0	16,650	0	0	19,655	0				

MONTHLY FISH PASSAGE SUMMARY REPORT — LITTLE GOOSE PROJECT

U.S. ARMY ENGINEER DISTRICT, PORTLAND — TABLE 110 — OCTOBER 1973

TABLE 110

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	48	48	0	1,232	0	0	1,328	0	34,500	0	5.0	62.0
2	0	0	17	13	0	896	0	0	926	0	23,700	0	5.0	62.0
3	0	0	2	13	0	616	0	0	631	0	26,000	0	4.9	62.0
4	0	0	11	3	0	256	0	0	270	0	32,300	0	5.0	62.0
5	0	0	25	5	0	477	0	0	507	0	25,700	0	5.0	62.0
6	0	0	25	1	0	1,145	0	0	1,171	0	20,200	0	5.0	61.0
7	0	0	25	6	0	759	0	0	790	0	19,000	0	5.0	61.0
8	0	0	30	2	0	377	0	0	409	0	22,200	0	5.0	61.0
9	0	0	11	4	0	227	0	0	242	0	19,700	0	5.0	60.0
10	0	0	49	39	0	710	0	0	798	0	25,800	0	5.0	60.0
11	0	0	97	23	0	463	0	0	583	0	24,000	0	5.0	60.0
12	0	0	28	12	0	279	0	0	319	0	21,900	0	5.0	59
13	0	0	6	5	0	163	0	0	174	0	19,400	0	5.0	59
14	0	0	15	6	0	384	0	0	405	0	15,100	0	5.0	59
15	0	0	4	4	0	165	0	0	173	0	30,000	0	5.0	58
16	0	0	1	2	0	496	0	0	499	0	23,500	0	5.0	58
17	0	0	13	3	0	257	0	0	273	0	33,100	0	5.0	57
18	0	0	2	2	0	220	0	0	224	0	21,200	0	5.0	57
19	0	0	10	2	0	210	0	0	222	0	21,100	0	5.0	56
20	0	0	16	1	0	295	0	0	312	0	22,300	0	5.0	56
21	0	0	16	6	0	409	0	0	425	0	25,500	0	6.0	57
22	0	0	14	2	0	529	0	0	545	0	33,800	0	5.0	57
23	0	0	0	1	0	169	0	0	170	0	9,100	0	5.0	57
24	0	0	12	0	0	242	0	0	254	0	24,900	0	5.0	57
25	0	0	11	4	0	215	0	0	230	0	19,000	0	5.0	57.0
26	0	0	11	0	0	361	0	0	372	0	21,900	0	5.0	57.0
27	0	0	5	0	0	262	0	0	267	0	22,700	0	5.0	56.0
28	0	0	2	0	0	160	0	0	162	0	23,400	0	5.0	56.0
29	0	0	9	0	0	166	0	0	175	0	22,200	0	5.0	56.0
30	0	0	8	0	0	165	0	0	173	0	22,000	0	5.0	56.0
31	0	0	5	0	0	115	0	0	120	0	31,200	0	5.0	56.0
TOTALS	0	0	528	201	0	12,420	0	0	13,149	0				

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 111

LITTLE GOOSE PROJECT

NOVEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SECCHI)	WATER TEMP (DEG F)
1	0	0	1	0	0	50	0	0	51	0	33,900	0	4.9	55.0
2	0	0	1	0	0	56	0	0	57	0	31,200	0	4.9	54
3	0	0	3	0	0	83	0	0	86	0	31,100	0	4.9	54.0
4	0	0	3	0	0	52	0	0	55	0	26,200	0	4.8	53.0
5	0	0	0	0	0	38	0	0	38	0	23,400	0	4.9	52.0
6	0	0	1	0	0	32	0	0	33	0	23,000	0	4.9	52.0
7	0	0	2	0	0	30	0	0	32	0	25,400	0	5.0	51.0
8	0	0	0	0	0	16	0	0	16	0	27,900	0	0.5	50.0
9	0	0	0	0	0	92	0	0	92	0	26,600	0	0.5	50.0
10	0	0	1	0	0	68	0	0	69	0	32,500	0	0.5	50.0
11	0	0	0	0	0	42	0	0	42	0	32,700	0	0.5	50.0
12	0	0	0	0	0	50	0	0	50	0	47,800	0	0.5	50.0
13	0	0	1	0	0	22	0	0	23	0	63,900	1,700	0.5	48.0
14	0	0	0	0	0	41	0	0	41	0	62,700	0	5.0	48.0
15	0	0	1	0	0	66	0	0	67	0	59,100	800	4.8	48.0
16	0	0	2	0	0	116	0	0	118	0	54,900	0	2.6	48.0
17	0	0	2	0	0	71	0	0	73	0	47,600	0	1.4	48.0
18	0	0	0	0	0	54	0	0	54	0	52,000	0	1.4	48.0
19	0	0	0	0	0	18	0	0	18	0	49,300	0	1.7	47.0
20	0	0	0	0	0	13	0	0	13	0	43,200	0	1.6	46.0
21	0	0	0	0	0	19	0	0	19	0	40,400	0	2.0	46.0
22	0	0	0	0	0	0	0	0	0	0	35,600	J	HOLIDAY	
23	0	0	0	0	0	14	0	0	14	0	34,900	0	3.5	46.0
24	0	0	0	0	0	18	0	0	18	0	32,600	0	3.5	46.0
25	0	0	0	0	0	14	0	0	14	0	35,900	0	3.6	45.0
26	0	0	0	0	0	13	0	0	13	0	35,700	0	4.0	45.0
27	0	0	0	0	0	12	0	0	12	0	34,900	0	4.3	45.0
28	0	0	0	0	0	10	0	0	10	0	37,400	0	4.6	45.0
29	0	0	0	0	0	8	0	0	8	0	37,700	0	4.6	44.0
30	0	0	1	0	0	11	0	0	12	0	38,300	0	4.7	44.0
TOTALS	0	0	19	0	0	1,129	0	0	1,148	0				

TABLE 112

MONTHLY FISH PASSAGE SUMMARY REPORT

U.S. ARMY ENGINEER DISTRICT, PORTLAND

TABLE 112

LITTLE GOOSE PROJECT

DECEMBER 1973

	FISH COUNTS (INCLUDING JACKS)										RIVER CONDITIONS			
DATE	SPRING CHINOOK	SUMMER CHINOOK	FALL CHINOOK	COHO	SOCKEYE	STEELHEAD	CHUM	PINK	TOTAL SALMONID	SHAD	DISCHARGE (CFS)	SPILL (CFS)	TURBIDITY (SEECHI)	WATER TEMP (DEG F)
1	0	0	0	0	0	18	0	0	18	0	41,800	0	4.9	44
2	0	0	1	0	0	26	0	0	27	0	42,900	0	5.0	44.0
3	0	0	0	0	0	31	0	0	31	0	44,100	0	5.0	44.0
4	0	0	0	0	0	7	0	0	7	0	44,100	0	4.9	44.0
5	0	0	0	0	0	7	0	0	7	0	41,700	0	4.8	44.0
6	0	0	0	0	0	4	0	0	4	0	40,800	0	4.5	44.0
7	0	0	0	0	0	1	0	0	1	0	42,600	0	4.2	44.0
8	0	0	0	0	0	6	0	0	6	0	40,200	1,500	3.3	44.0
9	0	0	0	0	0	14	0	0	14	0	49,900	5,000	3.3	43.0
10	0	0	0	0	0	13	0	0	13	0	45,200	1,100	3.3	44.0
11	0	0	0	0	0	7	0	0	7	0	43,100	0	3.6	44.0
12	0	0	0	0	0	0	0	0	0	0	41,400	0	3.6	44.0
13	0	0	0	0	0	0	0	0	0	0	40,300	0	3.0	44
14	0	0	0	0	0	1	0	0	1	0	42,800	0	2.8	44.0
15	0	0	0	0	0	0	0	0	0	0	42,400	0	2.5	44.0
16	0	0	0	0	0	0	0	0	0	0	41,500	0	2.8	43.0
17	0	0	0	0	0	0	0	0	0	0	40,400	0	3.1	42.0
18	0	0	0	0	0	0	0	0	0	0	52,500	8,600	3.0	41.0
19	0	0	0	0	0	0	0	0	0	0	58,700	13,800	3.2	41.0
20	0	0	0	0	0	0	0	0	0	0	53,700	4,500	3.4	42.0
21	0	0	0	0	0	7	0	0	7	0	54,400	2,200	3.5	42.0
22	0	0	0	0	0	14	0	0	14	0	54,100	0	3.3	42.0
23	0	0	0	0	0	61	0	0	61	0	53,700	0	1.2	42.0
24	0	0	0	0	0	0	0	0	0	0	56,200	0	1.2	42.0
25	0	0	0	0	0	0	0	0	0	0	52,200	0	1.2	42.0
26	0	0	0	0	0	8	0	0	8	0	52,100	0	1.3	42.0
27	0	0	0	0	0	8	0	0	8	0	52,200	0	1.3	42
28	0	0	0	0	0	13	0	0	13	0	52,000	0	0.8	42.0
29	0	0	0	0	0	56	0	0	56	0	55,800	0	0.6	41.0
30	0	0	0	0	0	17	0	0	17	0	40,200	0	0.5	41.0
31	0	0	0	0	0	0	0	0	0	0	38,700	0	0.5	41.0
TOTALS	0	0	1	0	0	319	0	0	320	0				

TABLE 113

PEAK DAYS OF MIGRATION 1970 - 1973

LITTLE GOOSE DAM

	Spring Chinook		Summer Chinook		Fall Chinook		Steelhead		Sockeye		Coho	
Year	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish	Date	Number of Fish
1970	4 May	3,464	28 Jun	938	19 Sep	622	22 Sep	2,424	25 Jul	36	19 Sep	146
1971	28 May	1,941	18 Jun	1,160	17 Sep	539	27 Sep	2,515	14 Jul	64	14 Sep	238
1972	14 May	4,309	7 Jul	1,318	20 Sep	148	3 Oct	3,655	16 Jul	22	20 Sep	63
1973	1 May	3,415	24 Jun	1,616	17 Sep	409	24 Sep	1,406	11 Jul	14	15 Sep	111

TABLE 113

TABLE 114

TABLE 114
MONTHLY TOTALS OF CHINOOK COUNTED OVER
LITTLE GOOSE DAM
1970 - 1973

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1970	-	-	-	6,765	32,616	15,204	11,200	1,529	4,508	965	178	6	72,971
1971	-	-	-	133	16,012	24,096	14,473	707	5,319	606	55	1	61,402
1972	-	-	-	2,226	37,991	5,585	14,747	1,614	1,445	576	27	-	64,211
1973	-	-	-	17,490	34,570	10,661	4,344	520	2,472	528	19	1	70,605
TOTAL	-	-	-	26,614	121,189	55,546	44,764	4,370	13,744	2,675	279	8	269,189
4-Year Average	-	-	-	6,654	30,297	13,887	11,191	1,092	3,436	669	70	2	67,297

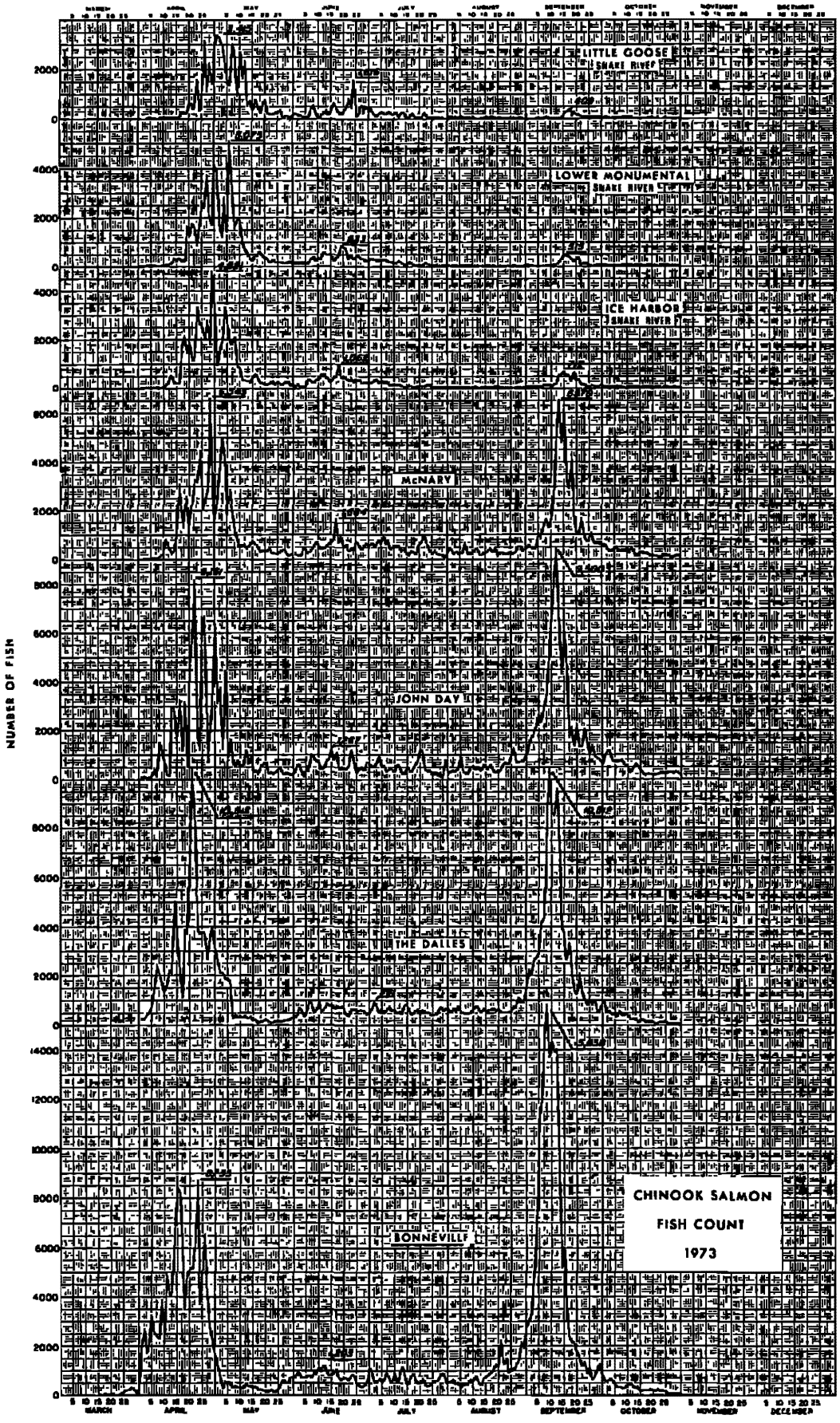
TABLE 115
MONTHLY COUNT OF STEELHEAD TROUT
LITTLE GOOSE DAM
1970 - 1973

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1970	-	-	3,346	4,148	1,762	167	1,485	7,487	27,898	11,931	1,136	280	59,640
1971	-	-	586	1,968	1,319	85	1,286	3,337	38,988	19,674	2,161	609	70,013
1972	248	251	943	2,565	720	54	1,209	6,637	25,089	24,323	1,258	341	63,638
1973	133	80	1,039	2,051	829	65	1,249	2,856	16,650	12,420	1,129	319	38,820
TOTAL	381	331	5,914	10,732	4,630	371	5,229	20,317	108,625	68,348	5,684	1,549	232,111
4-Year Average	95	83	1,478	2,683	1,157	93	1,307	5,079	27,156	17,087	1,421	387	58,028

TABLE 116

FISH FACILITY OPERATION & MAINTENANCE COSTS - 1973

Project	Routine Operations	Fish Counting	Maintenance	Total Operation and Maintenance
Bonneville	$ 48,069	$ 26,919	$200,518	$275,506
The Dalles	22,425	29,679	34,298	86,402
John Day	36,766	26,477	66,443	129,686
McNary	78,613	25,573	73,843	178,029
Ice Harbor	9,550	31,270	21,700	62,520
Lower Monumental	9,550	28,990	21,700	60,240
Little Goose	20,719	19,345	9,060	49,124
Total	$225,692	$188,253	$427,562	$841,507

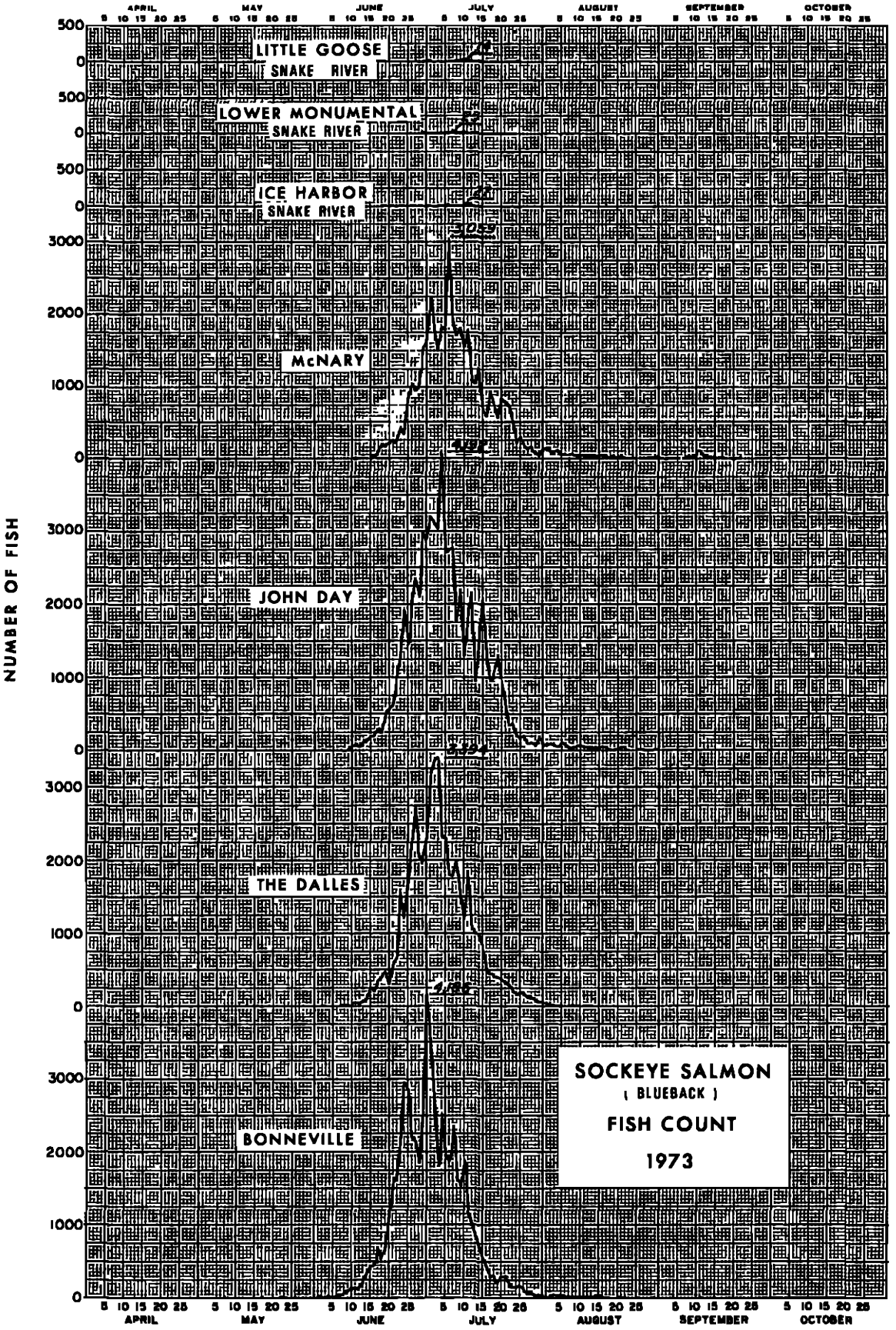


COLUMBIA AND SNAKE RIVER PROJECTS

US ARMY ENGINEER DISTRICTS

PORTLAND AND WALLA WALLA

PLATE 1

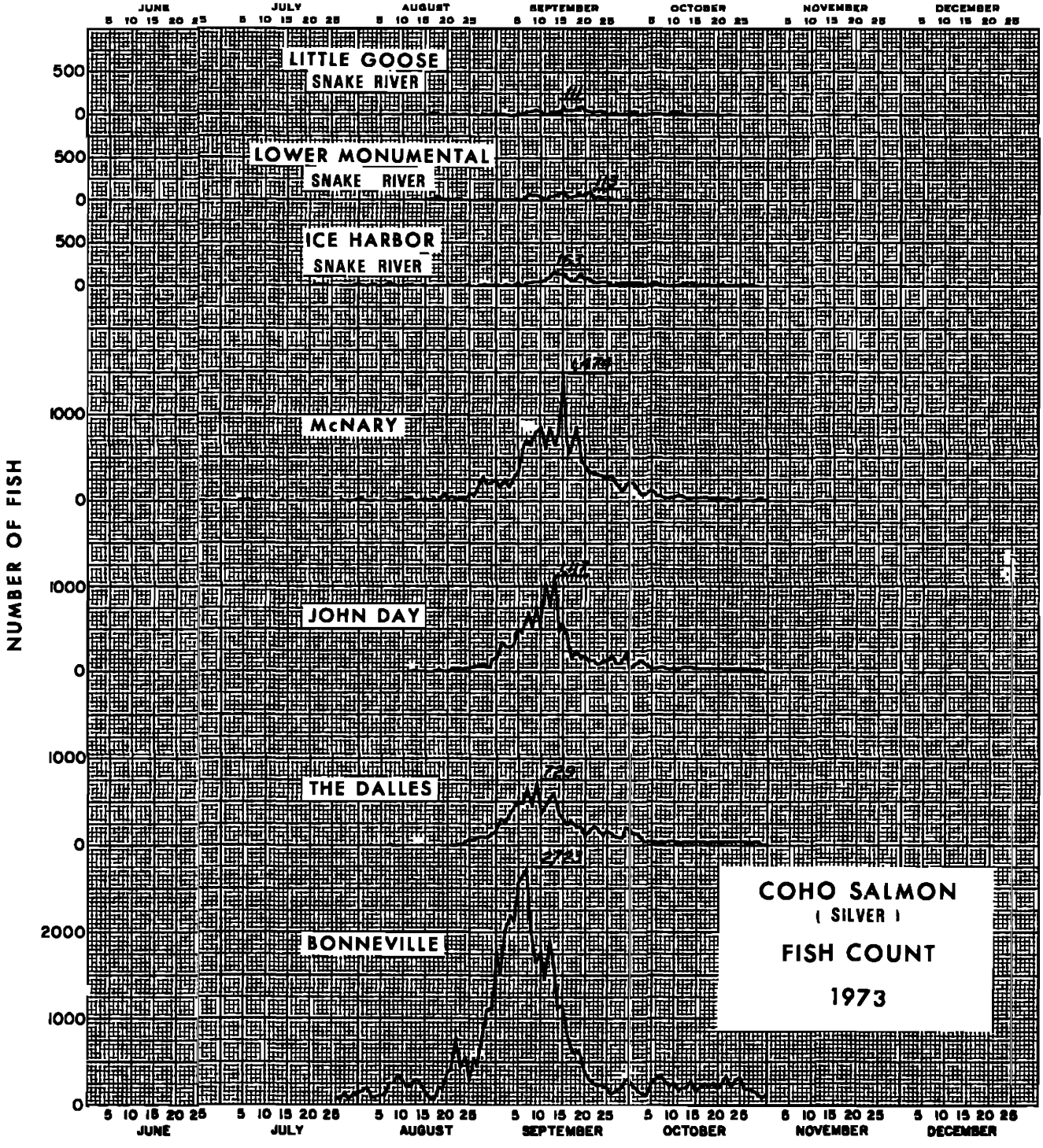


COLUMBIA AND SNAKE RIVER PROJECTS

US ARMY ENGINEER DISTRICTS

PORTLAND AND WALLA WALLA

PLATE 2

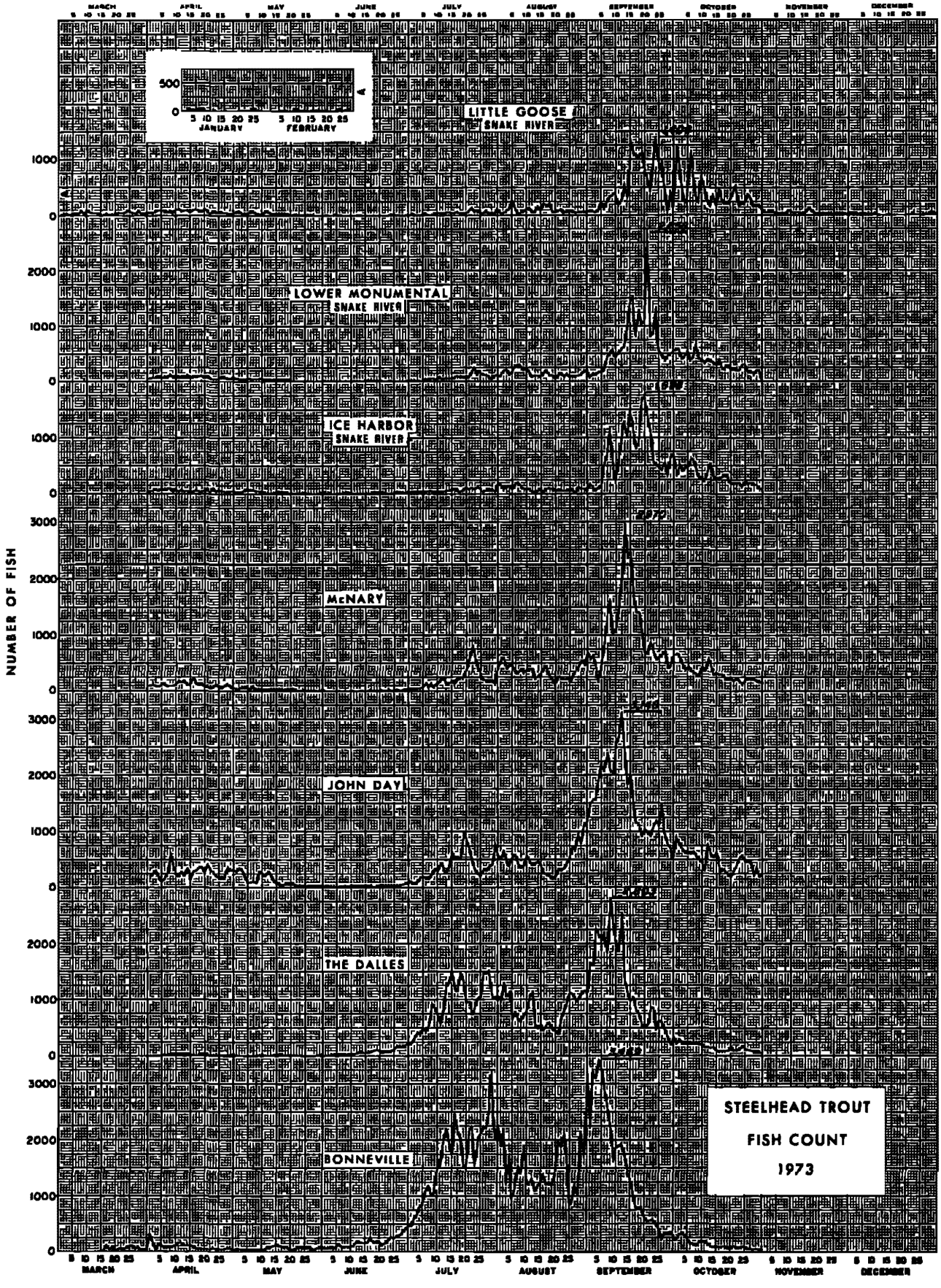


COLUMBIA AND SNAKE RIVER PROJECTS

US ARMY ENGINEER DISTRICTS

PORTLAND AND WALLA WALLA

PLATE 3



COLUMBIA AND SNAKE RIVER PROJECTS

U.S. ARMY ENGINEER DISTRICTS

PORTLAND AND WALLA WALLA

PLATE 4

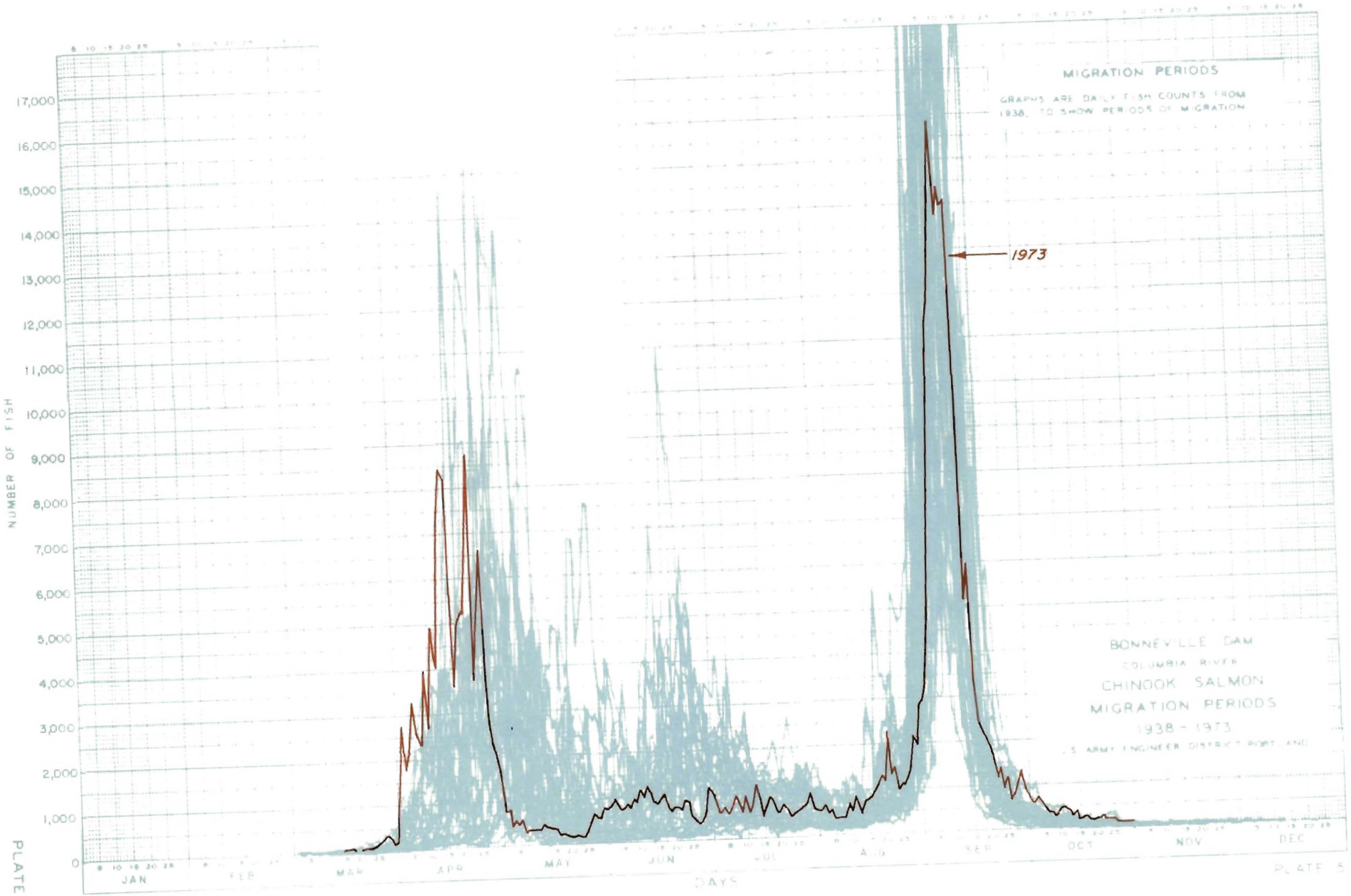
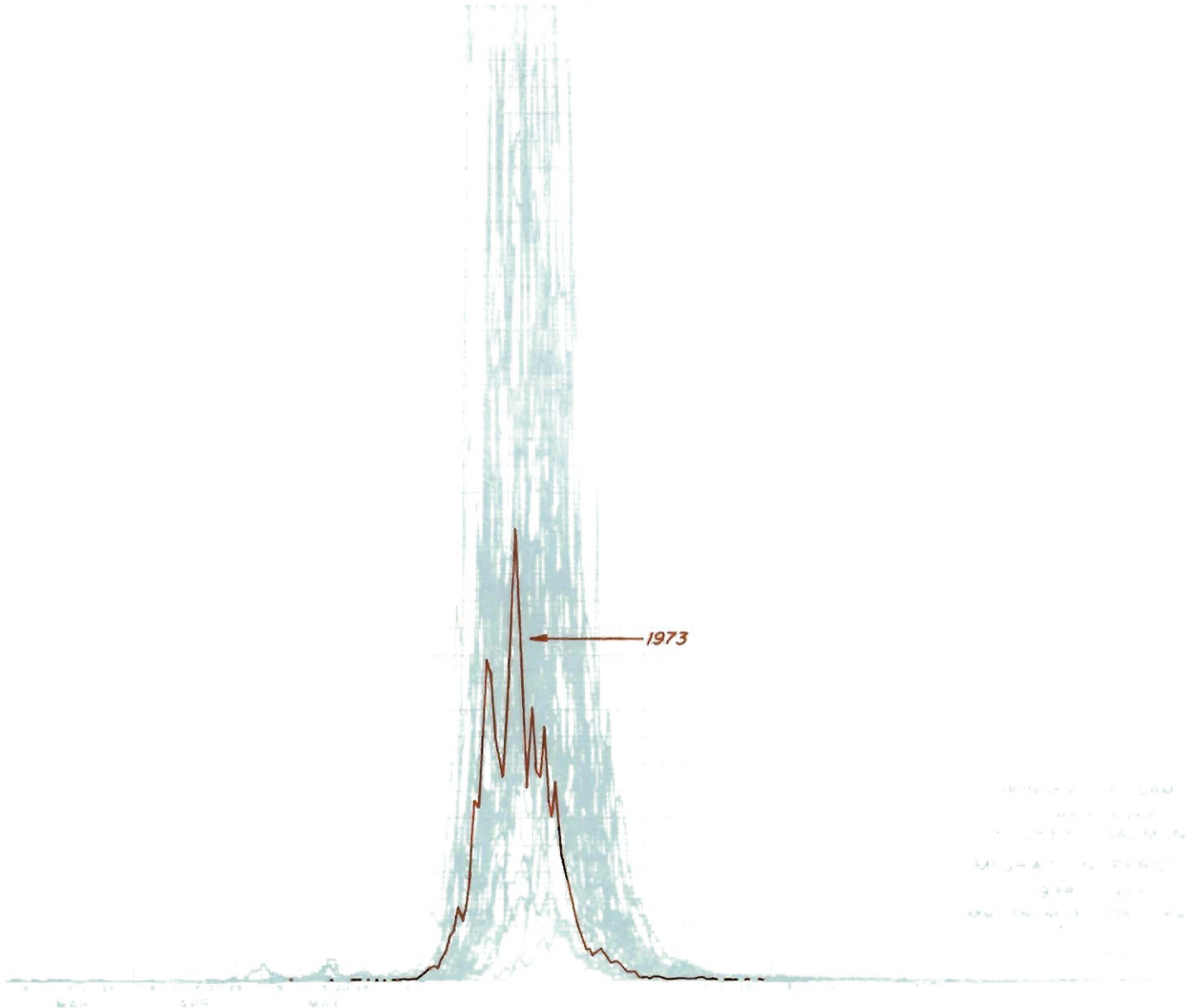

MIGRATION PERIODS
GRAPHS ARE DAILY FISH COUNTS FROM 1938, TO SHOW PERIODS OF MIGRATION
1973
BONNEVILLE DAM
COLUMBIA RIVER
CHINOOK SALMON
MIGRATION PERIODS
1938 - 1973
U.S. ARMY ENGINEER DISTRICT PORTLAND
NUMBER OF FISH
17,000
16,000
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
DAYS

PLATE 5


1973

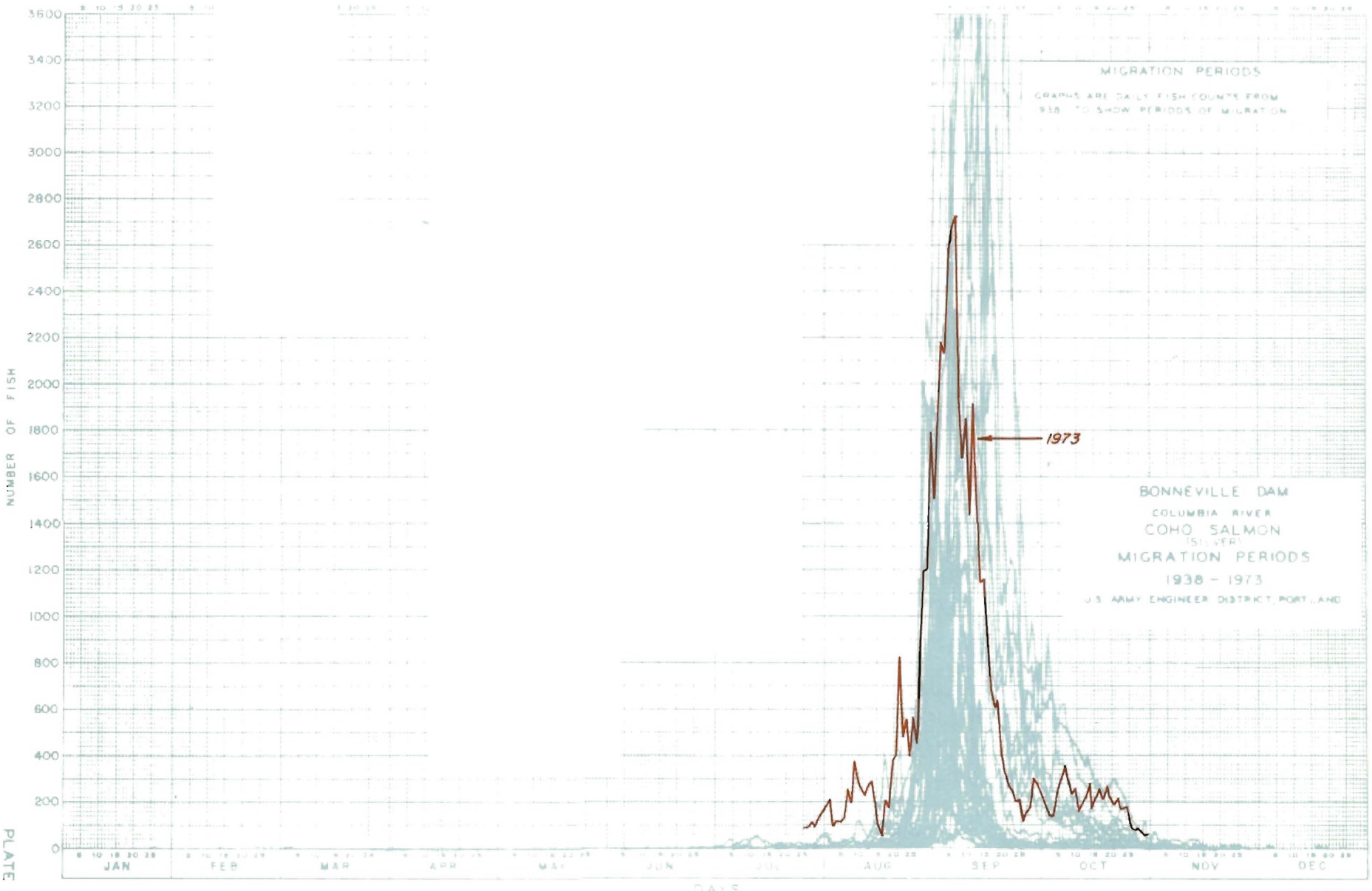
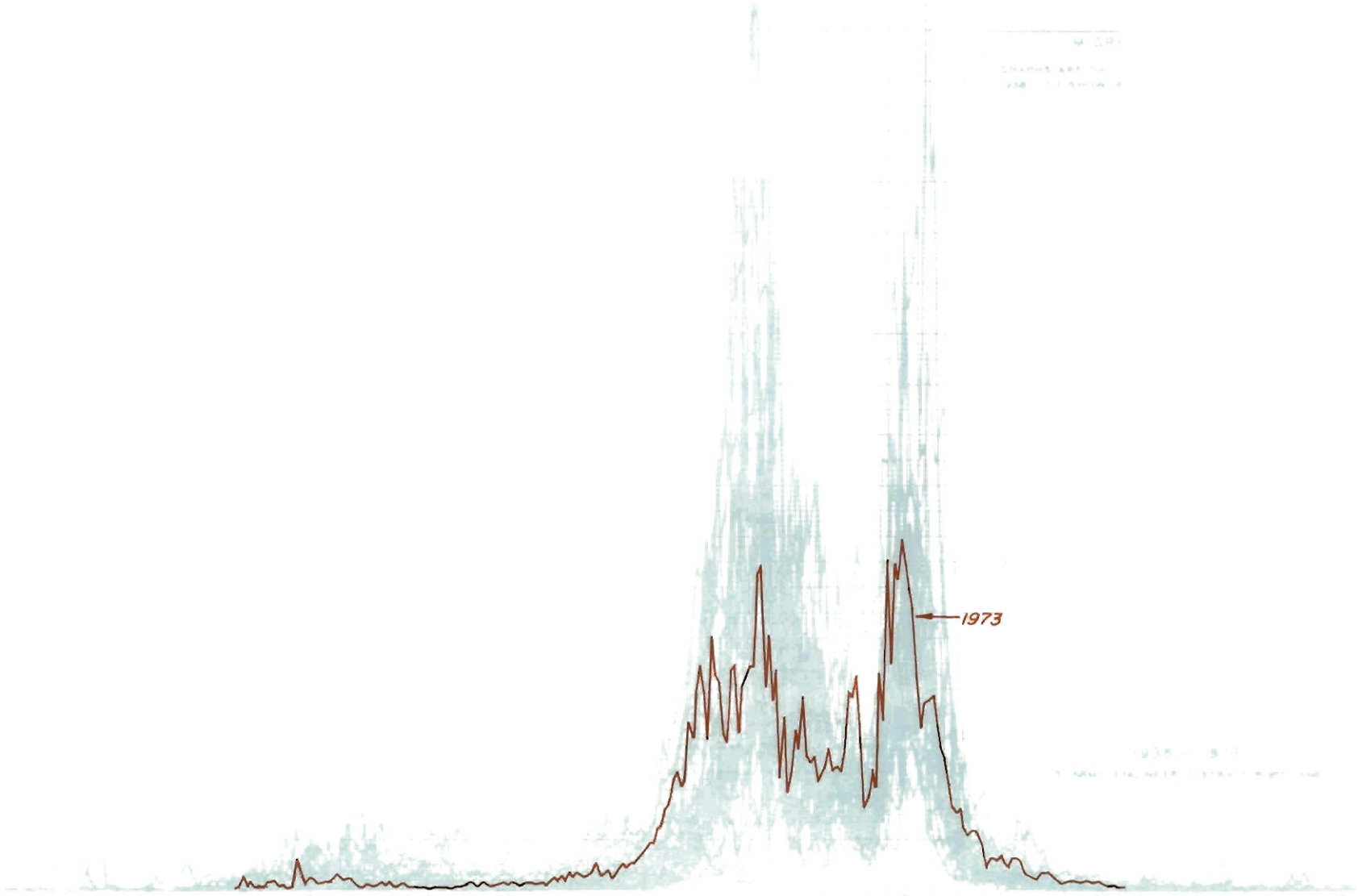


PLATE 7

PLATE 7


1973

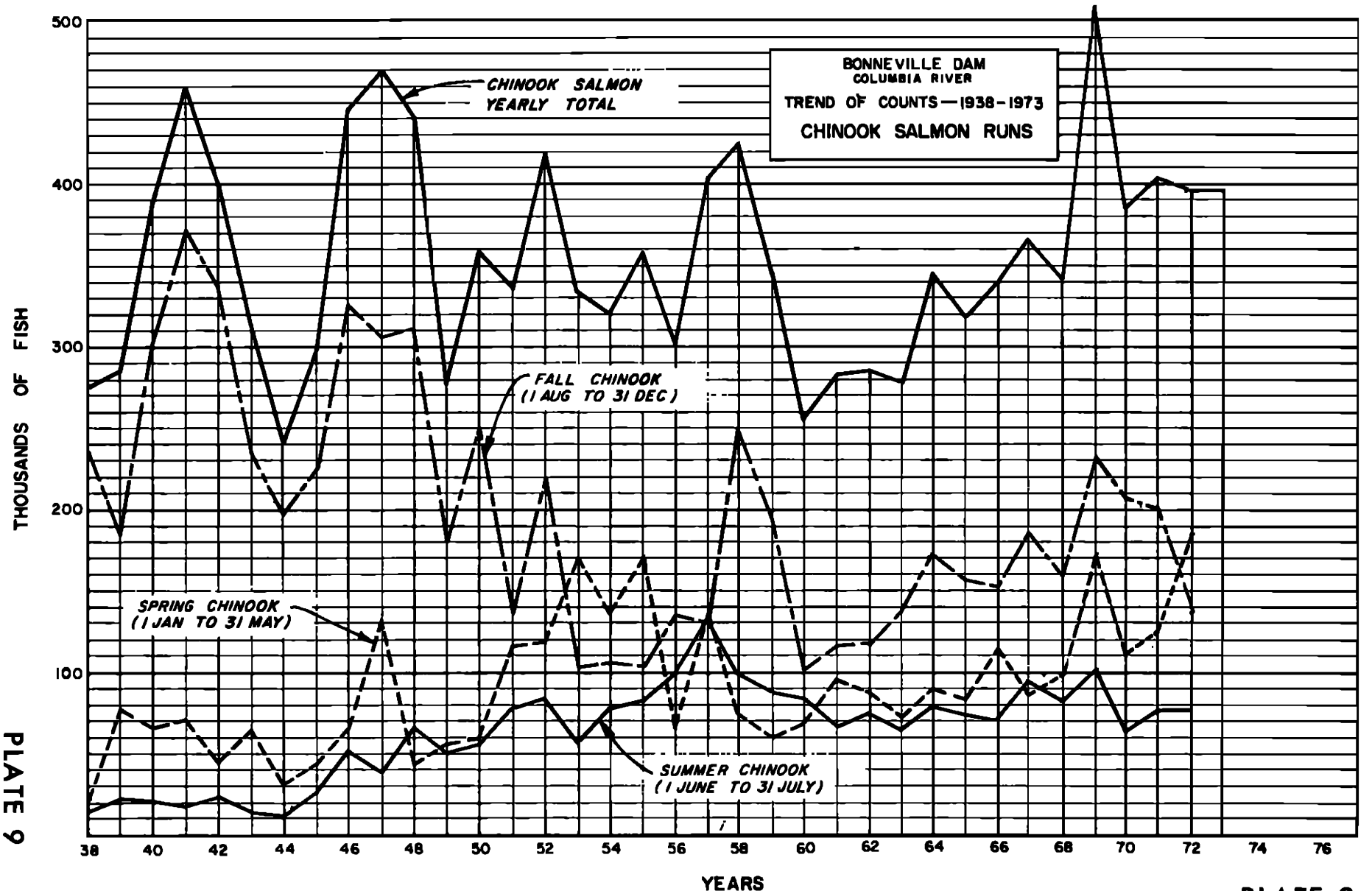


PLATE 9

PLATE 9

PLATE 10

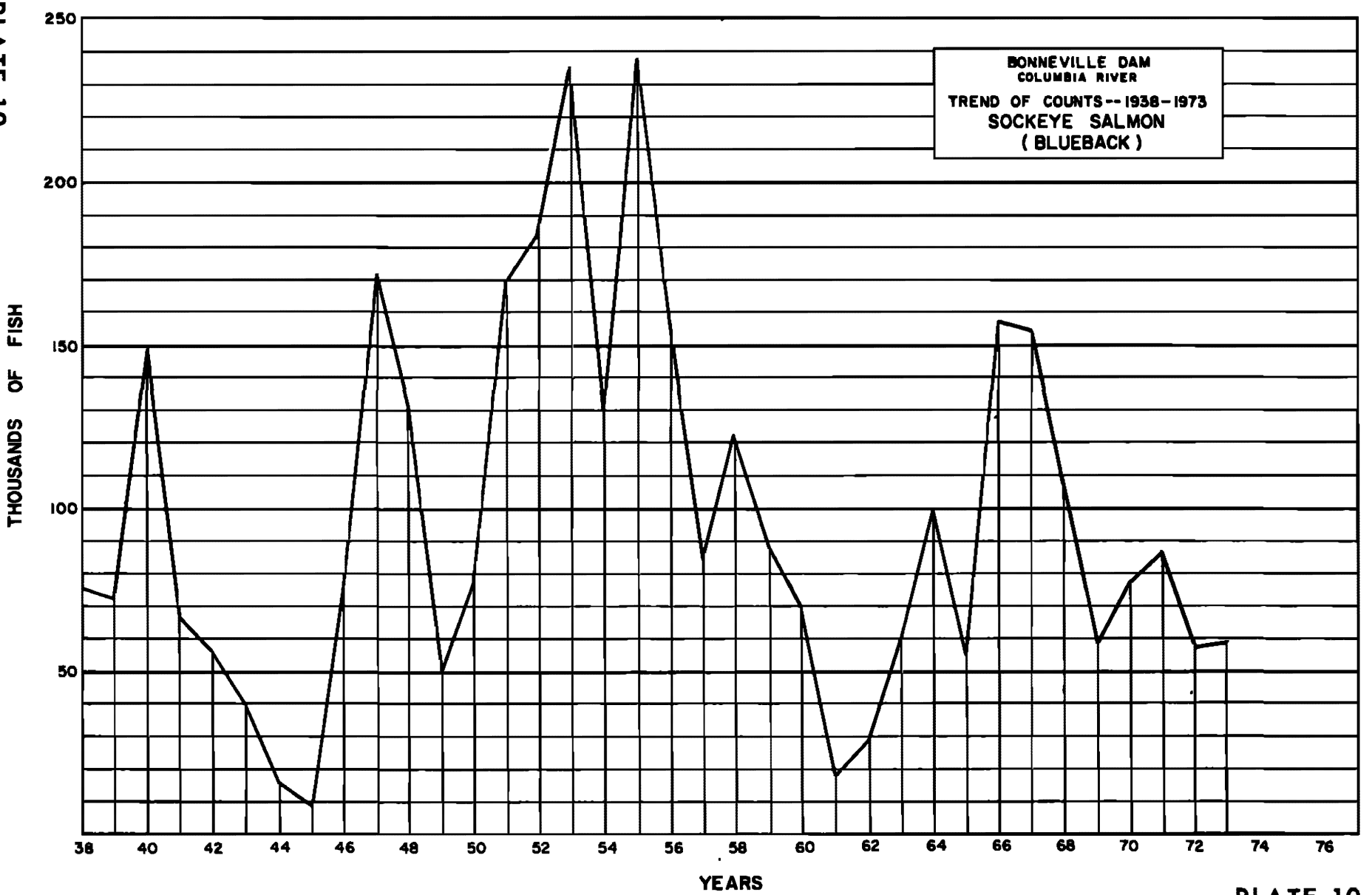


PLATE 10

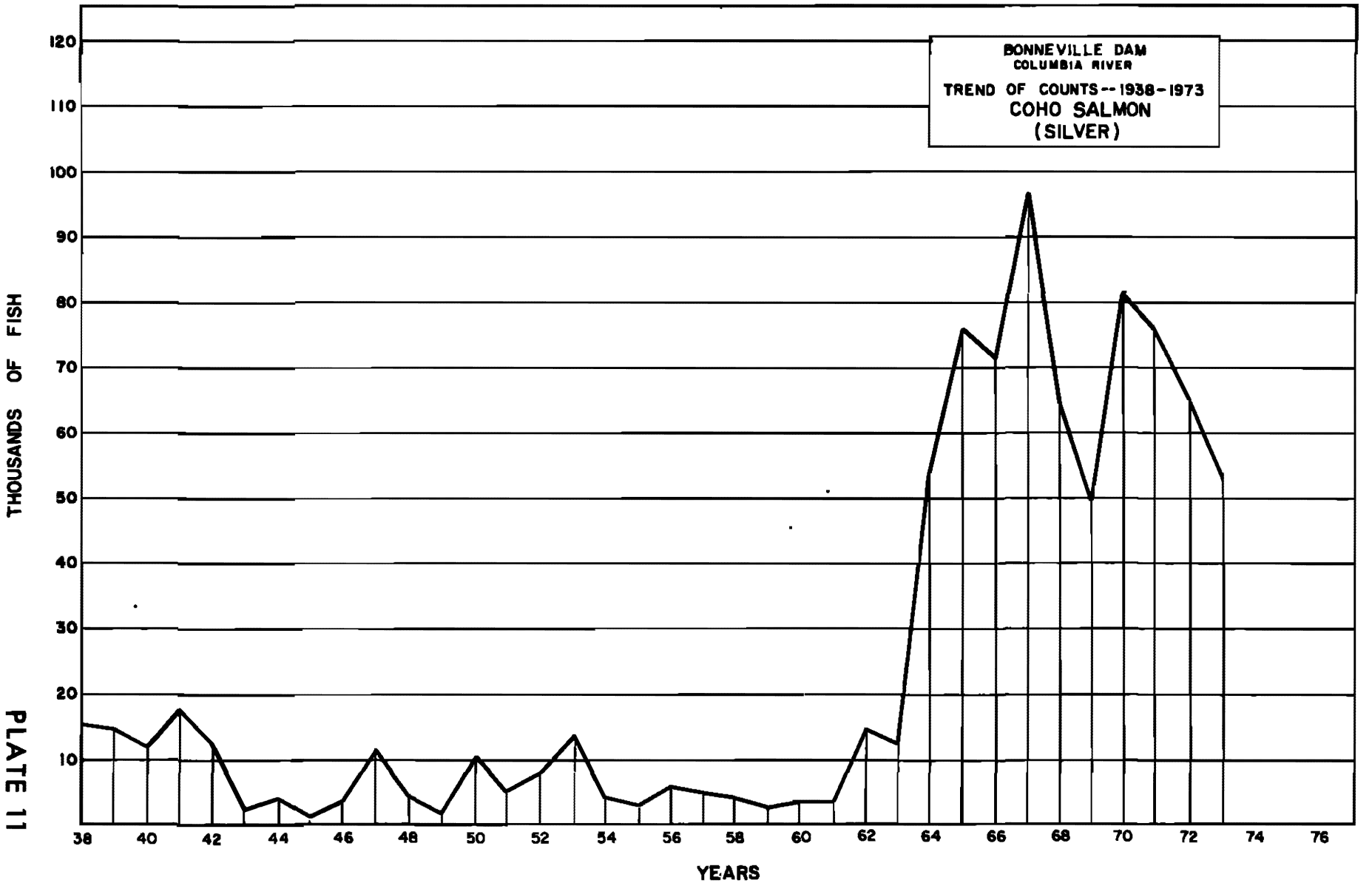


PLATE 11

PLATE 11

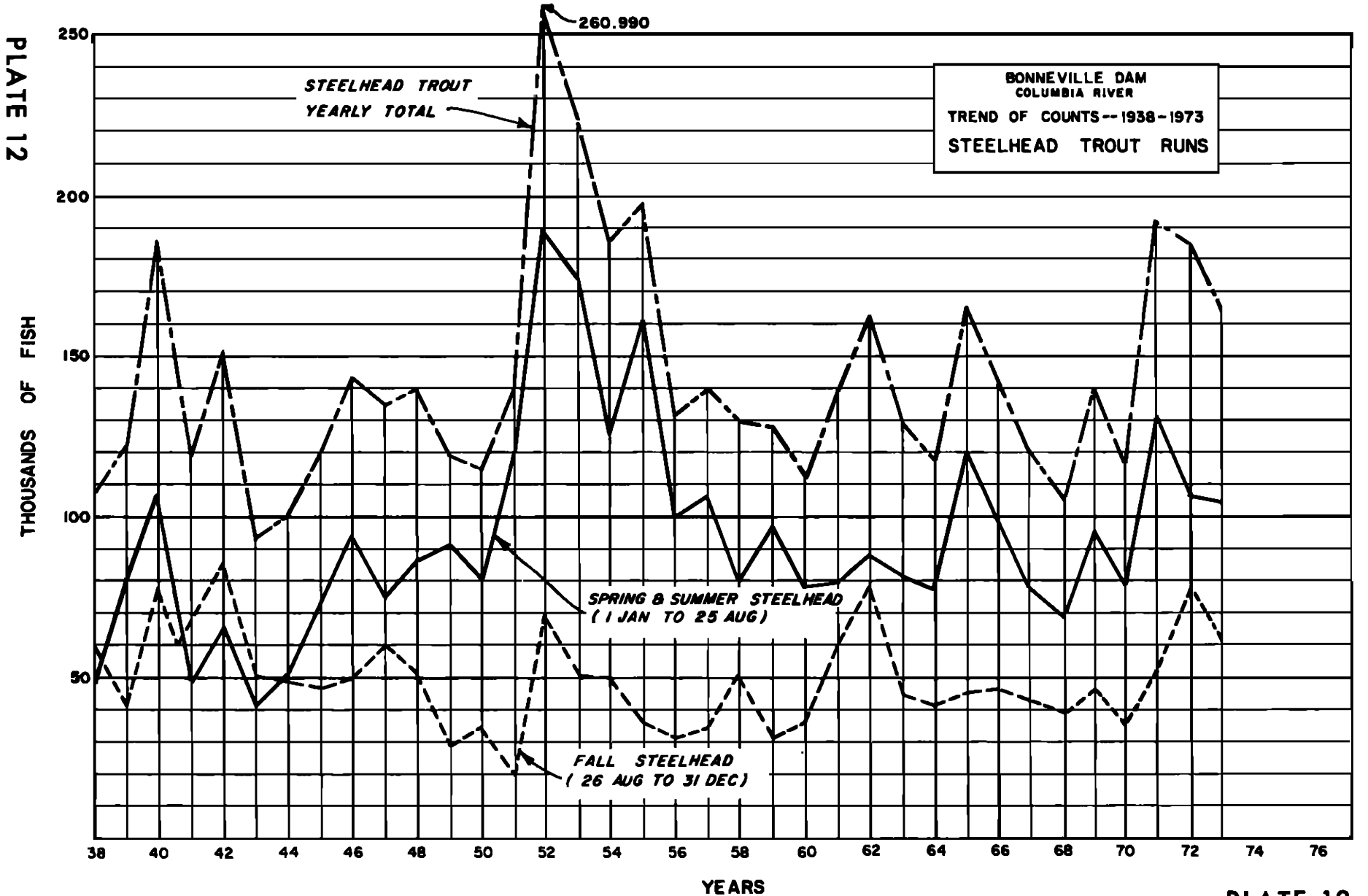


PLATE 12

PLATE 12

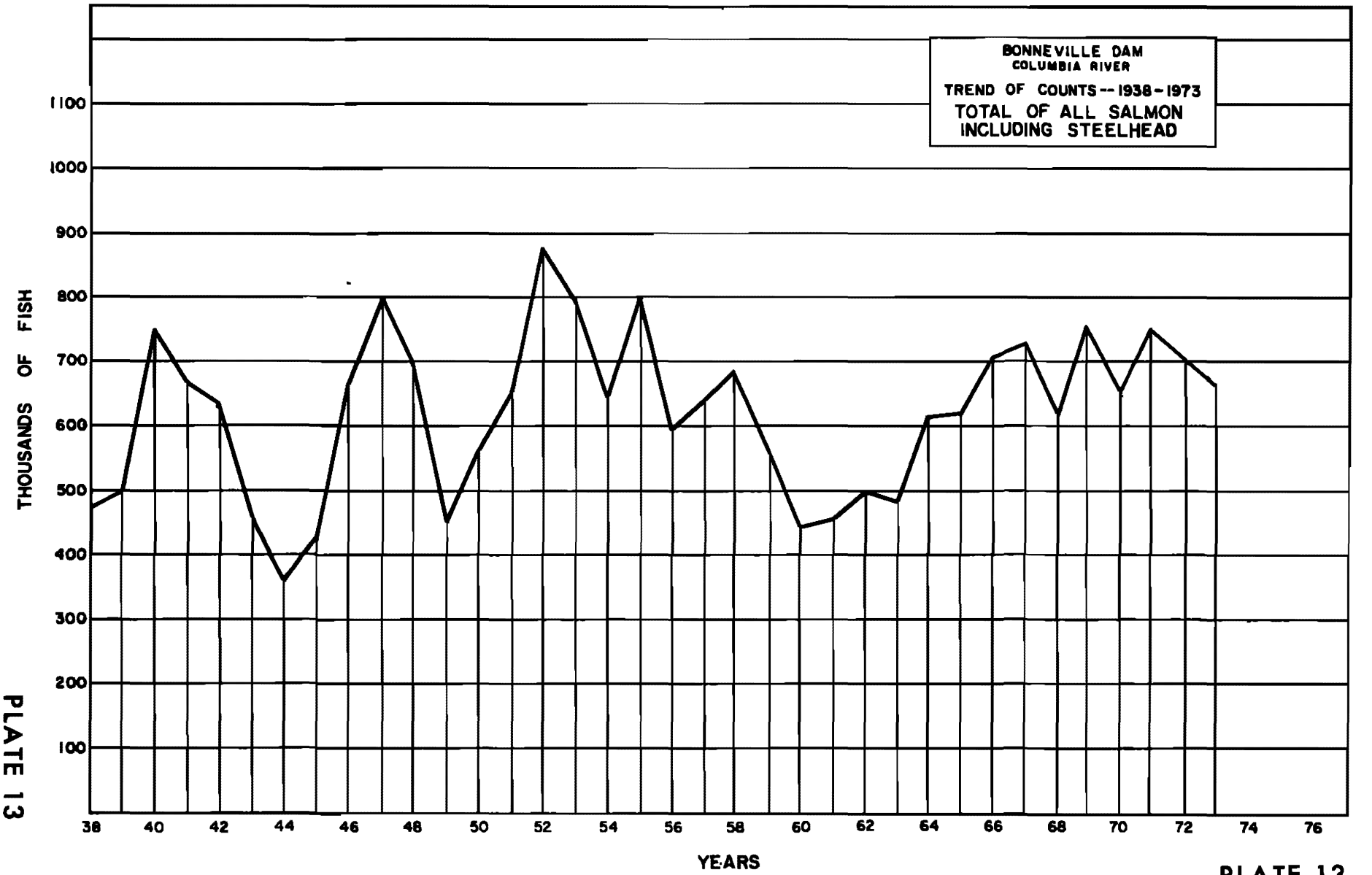


PLATE 13

PLATE 13

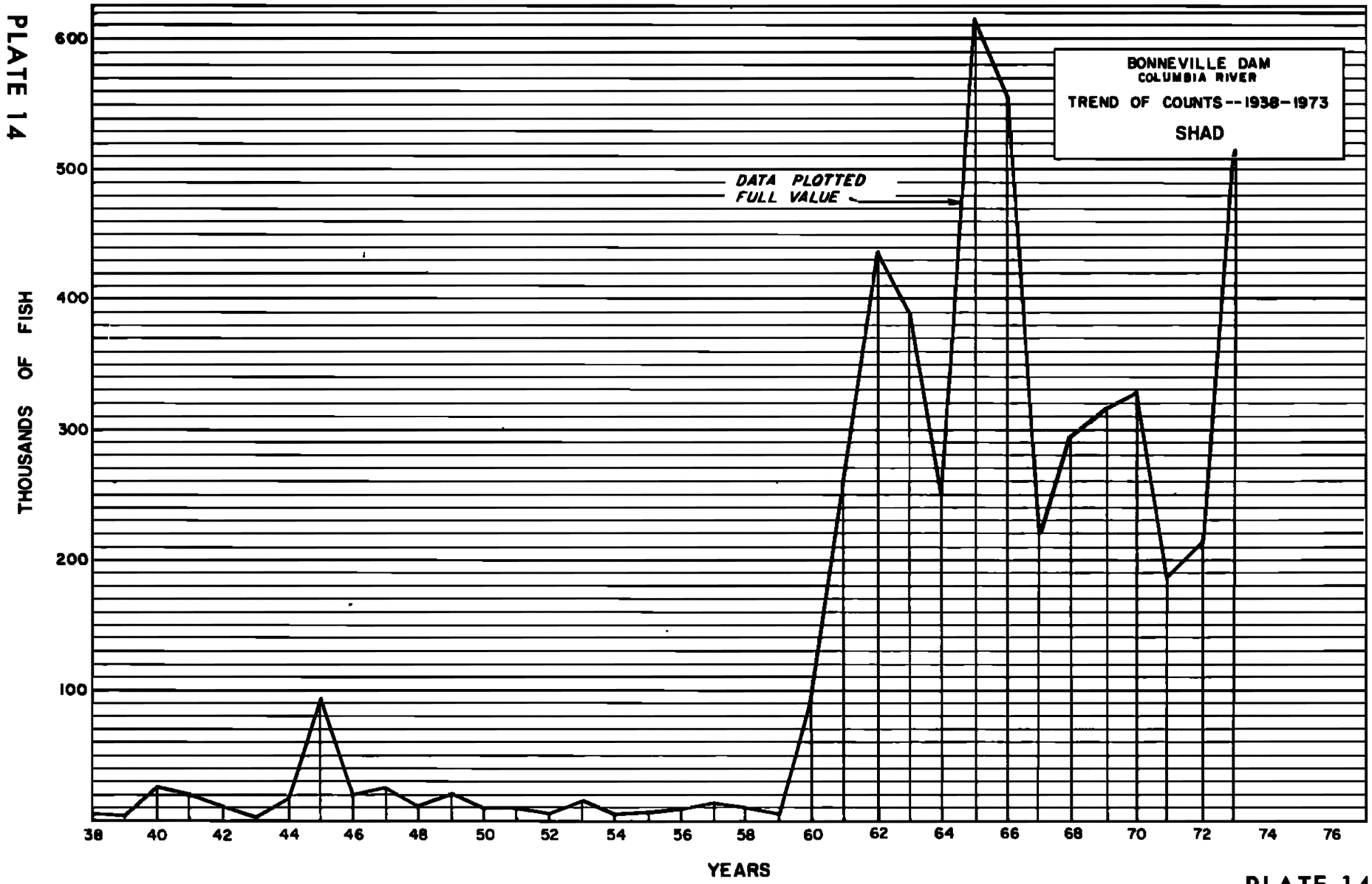


PLATE 14

PLATE 14

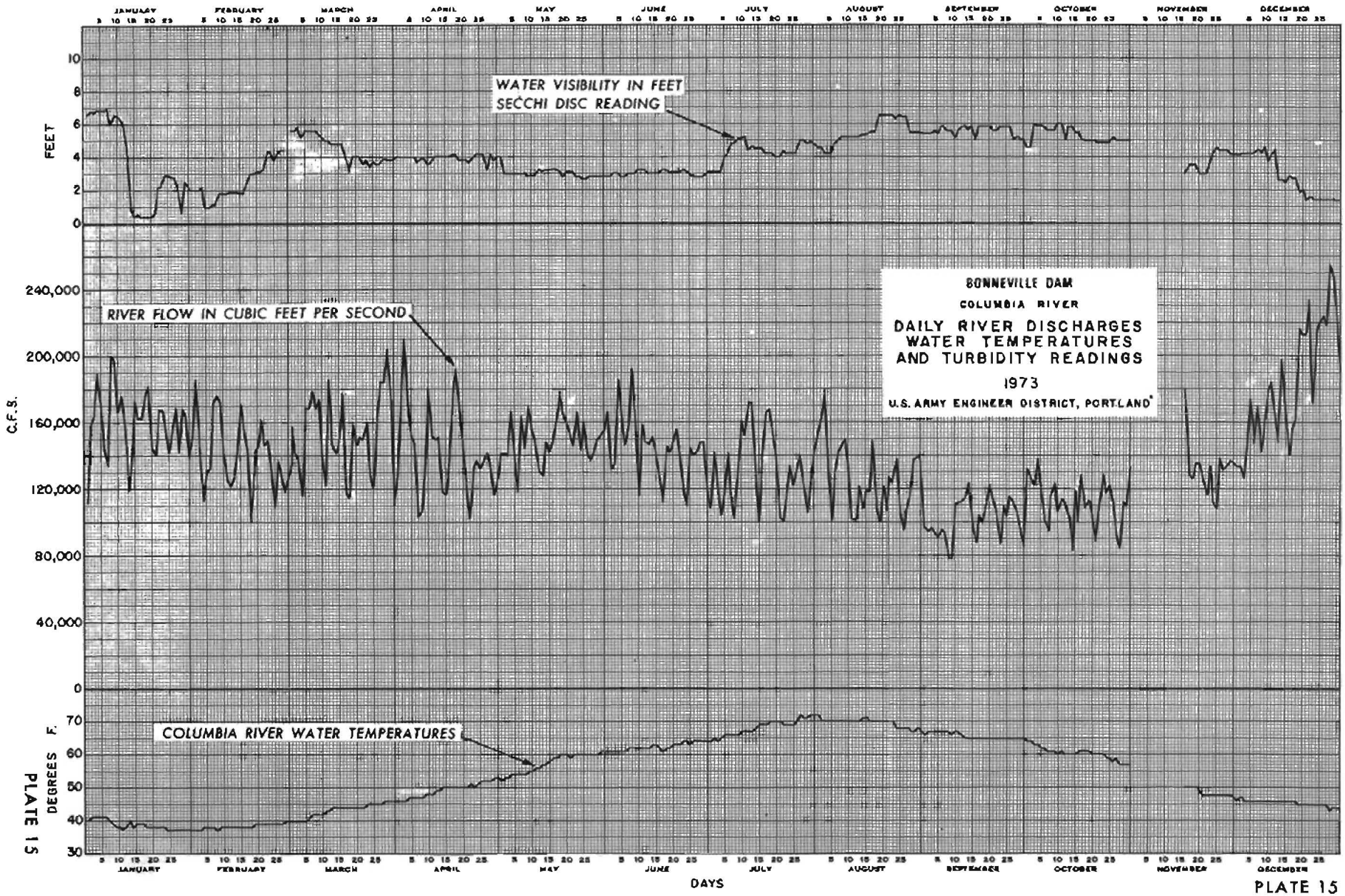


PLATE 15

PLATE 15

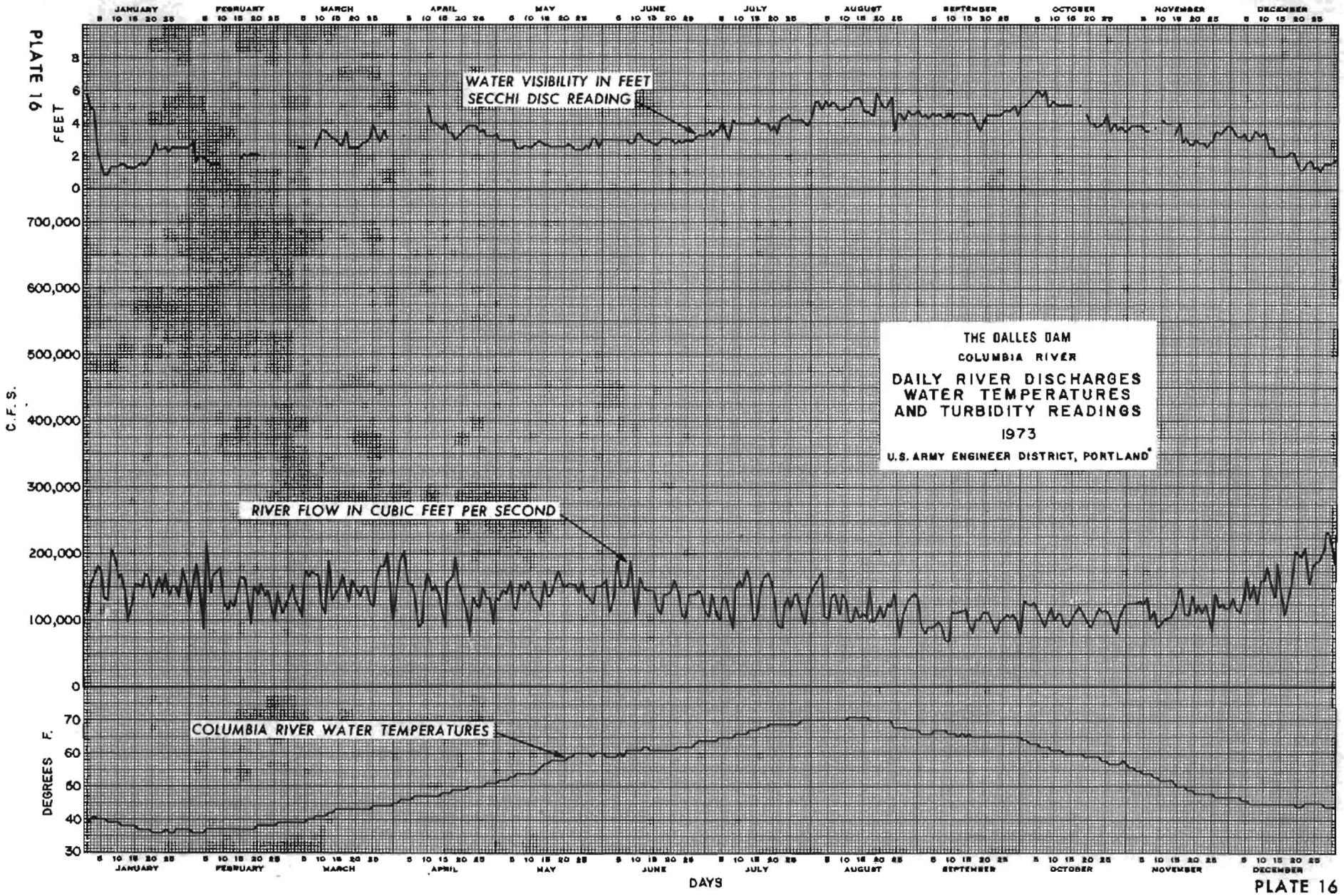


PLATE 16

PLATE 16

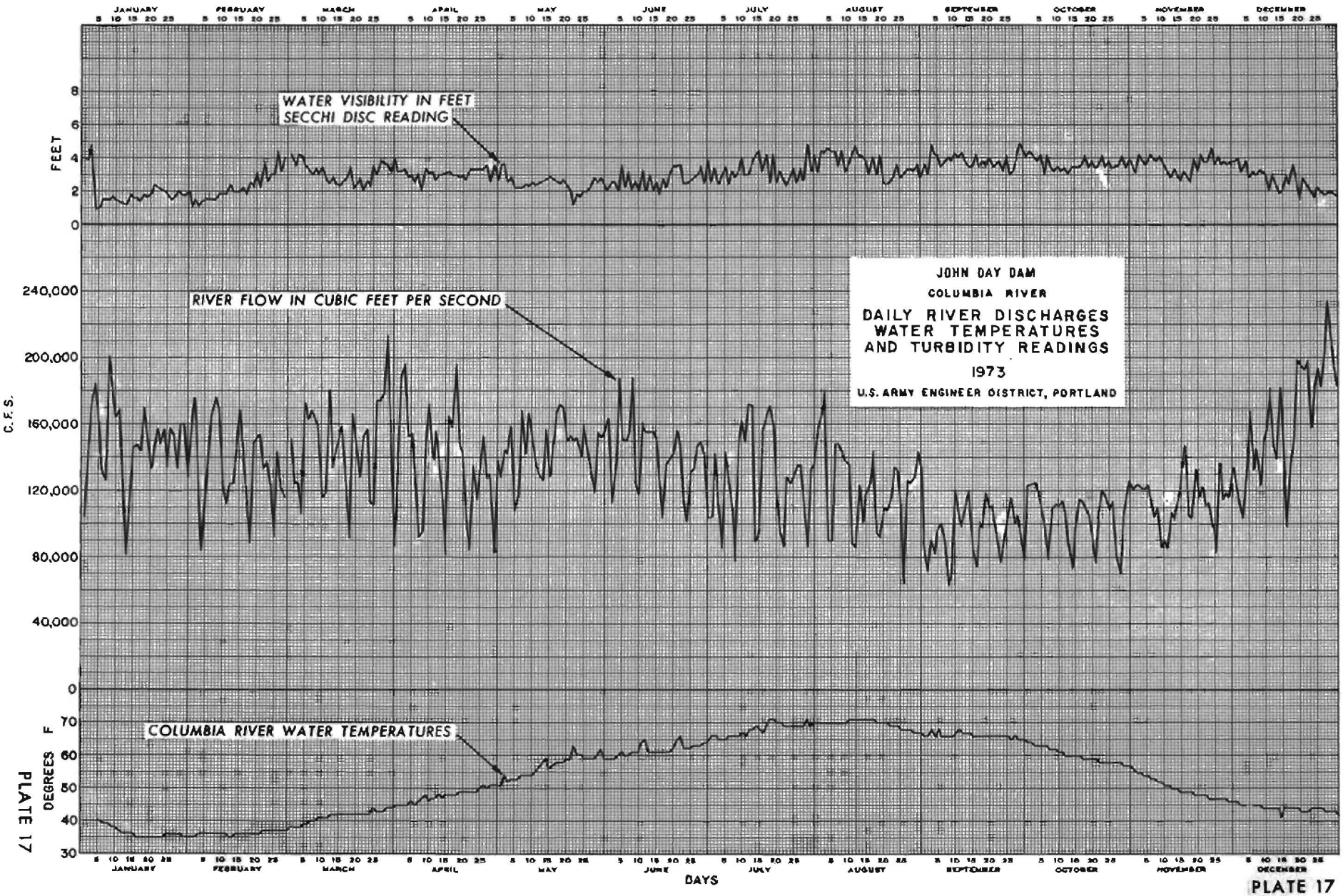


PLATE 17

PLATE 17

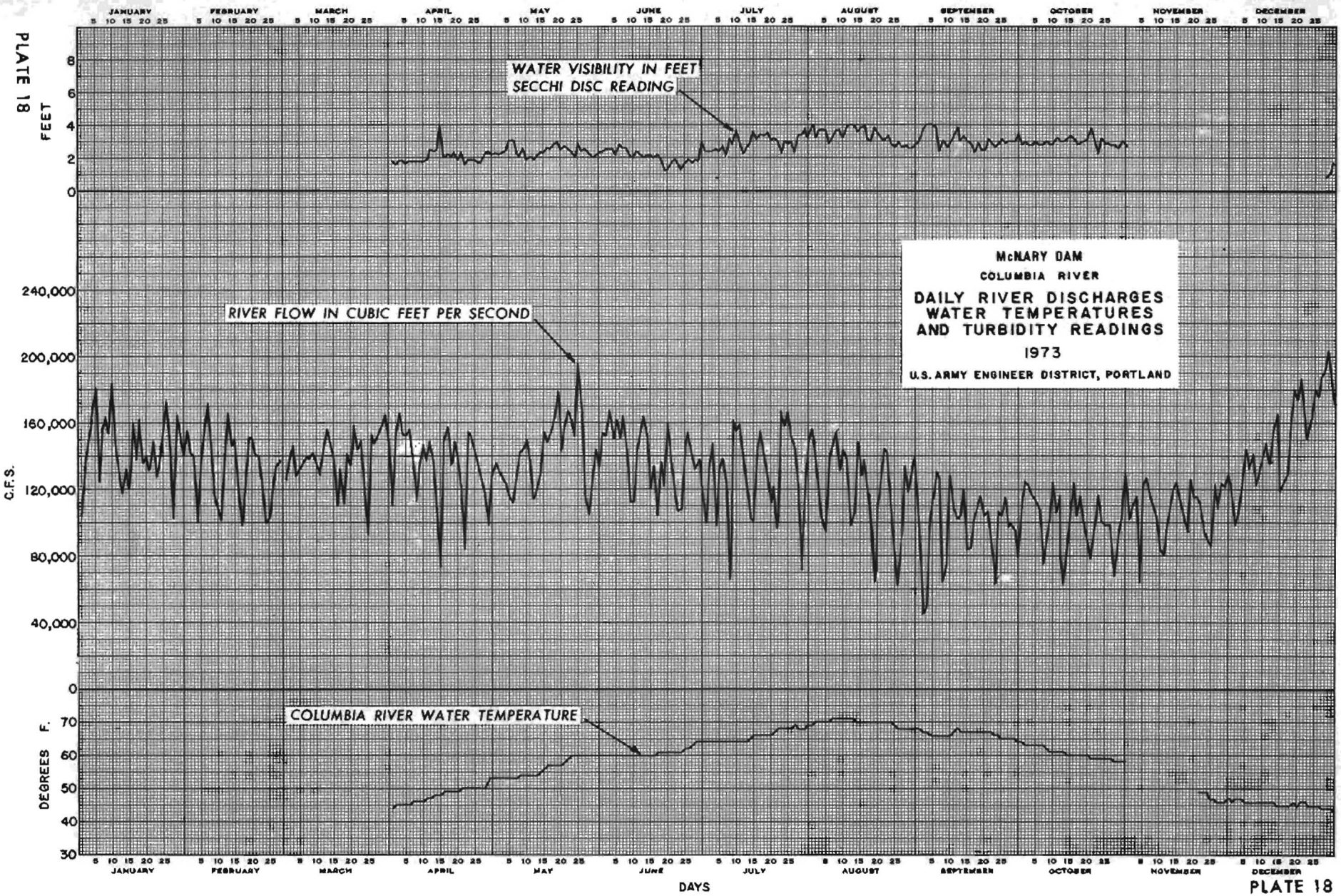


PLATE 18

PLATE 18

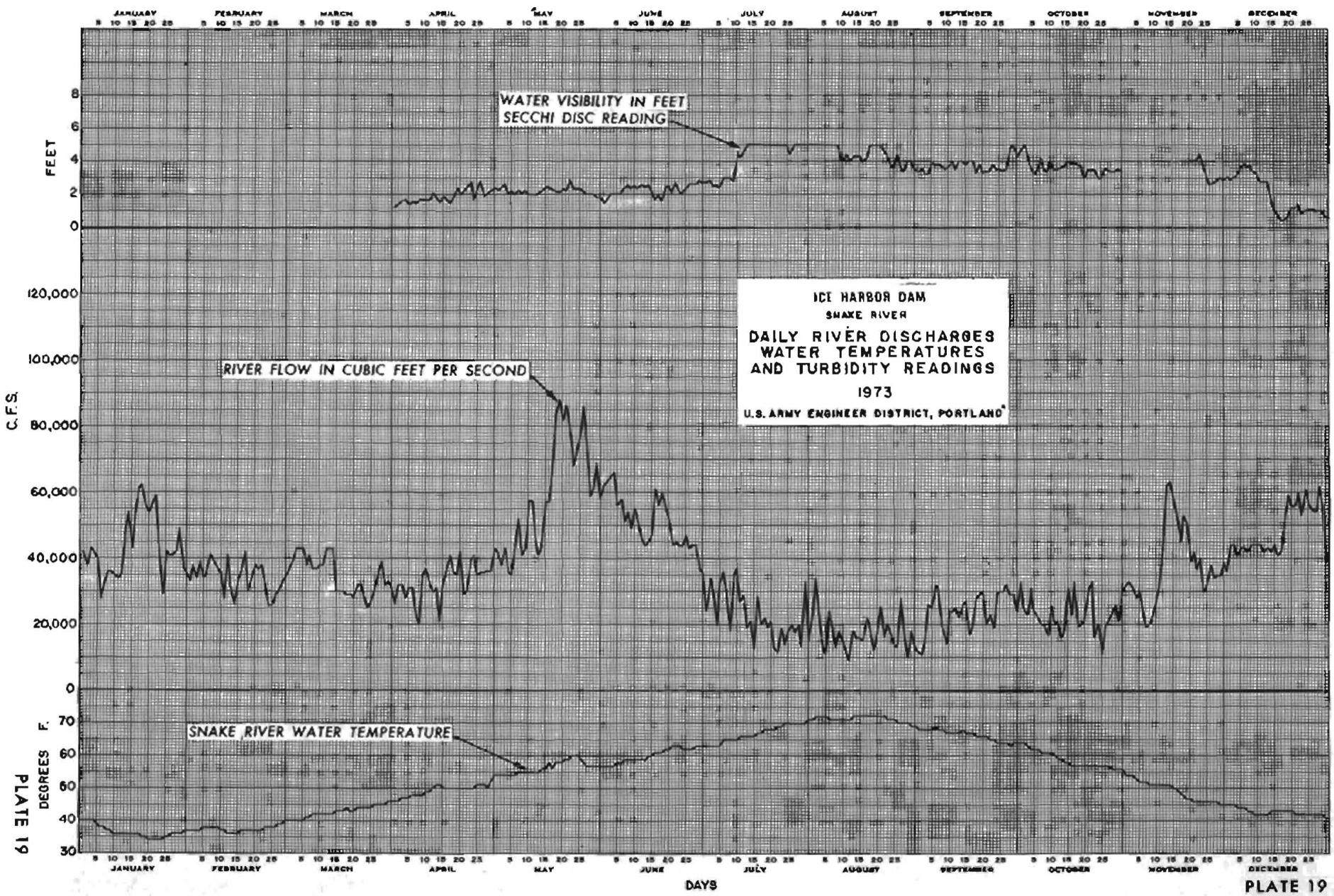
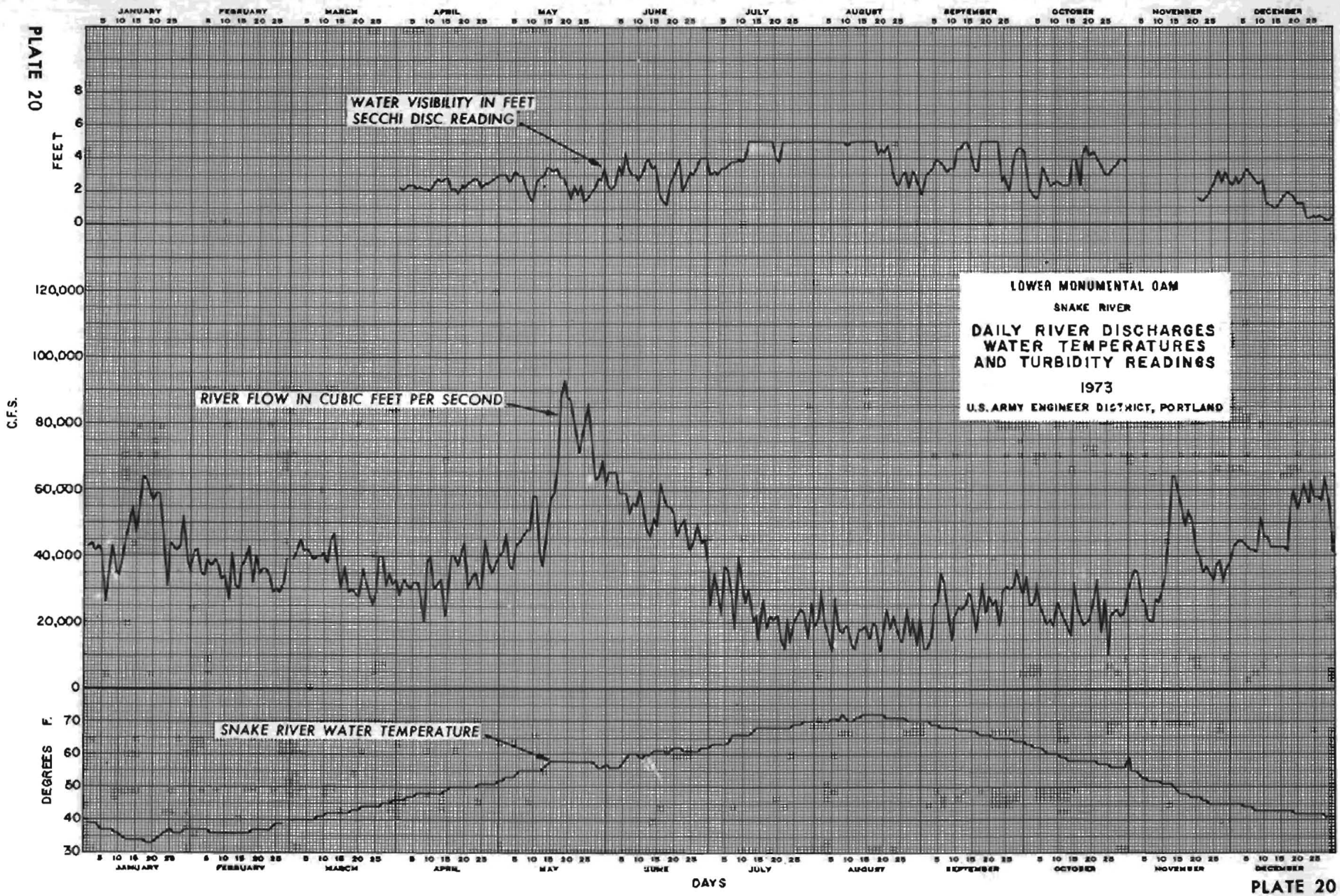


PLATE 19

PLATE 19


LOWER MONUMENTAL DAM
SNAKE RIVER
DAILY RIVER DISCHARGES
WATER TEMPERATURES
AND TURBIDITY READINGS
1973
U.S. ARMY ENGINEER DISTRICT, PORTLAND
WATER VISIBILITY IN FEET
SECCHI DISC READING
RIVER FLOW IN CUBIC FEET PER SECOND
SNAKE RIVER WATER TEMPERATURE
FEET
C.F.S.
DEGREES F.
DAYS
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

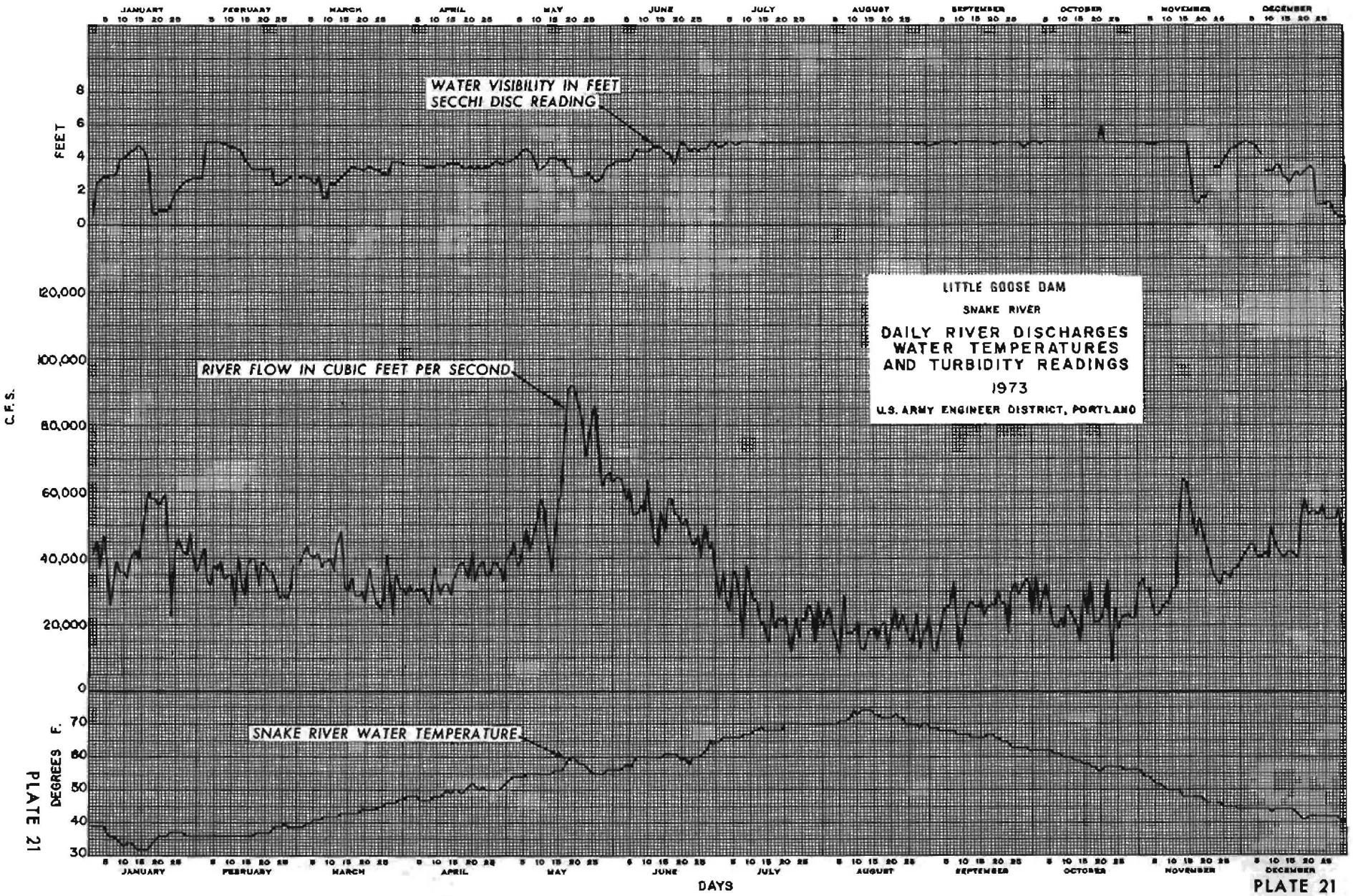
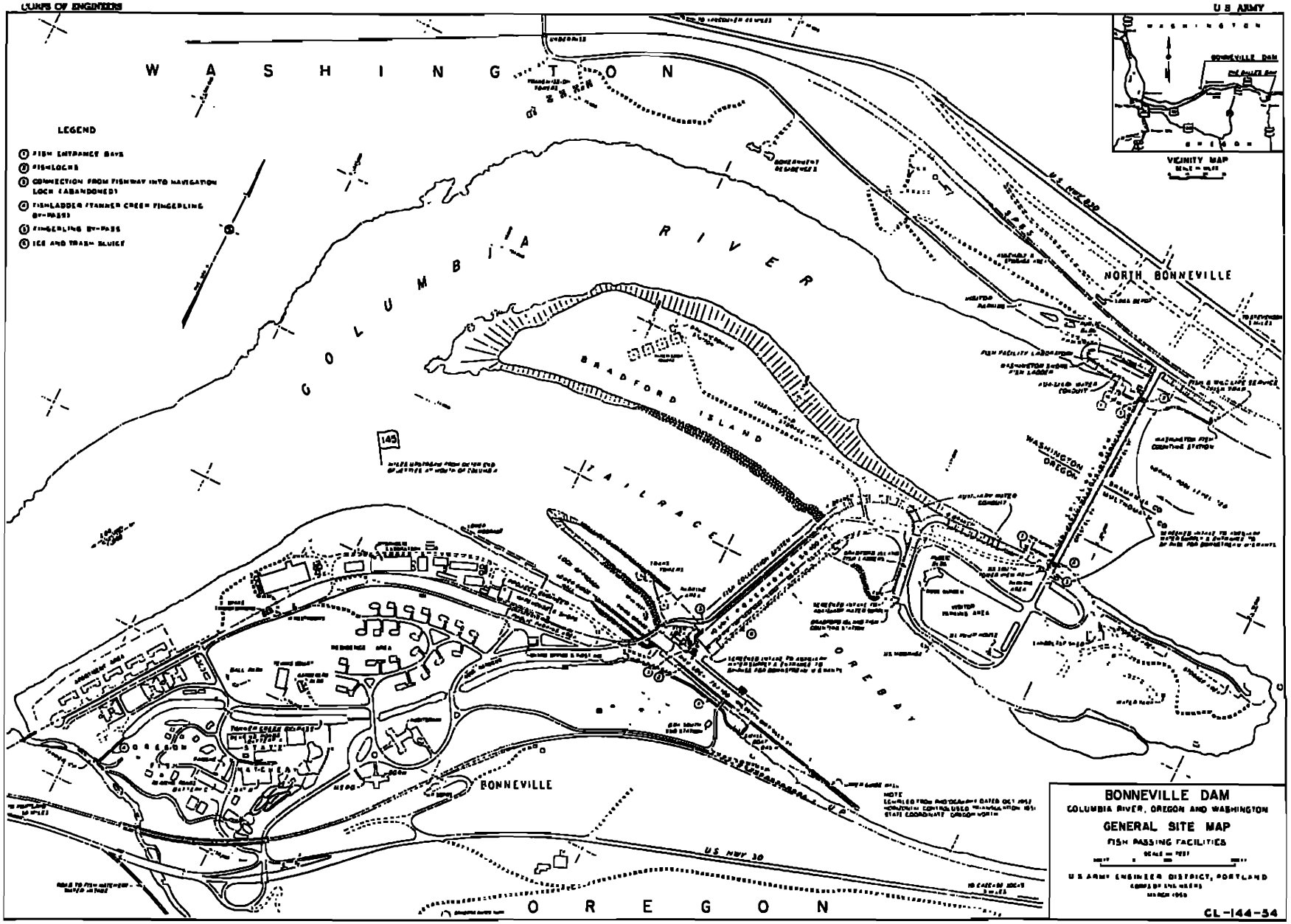
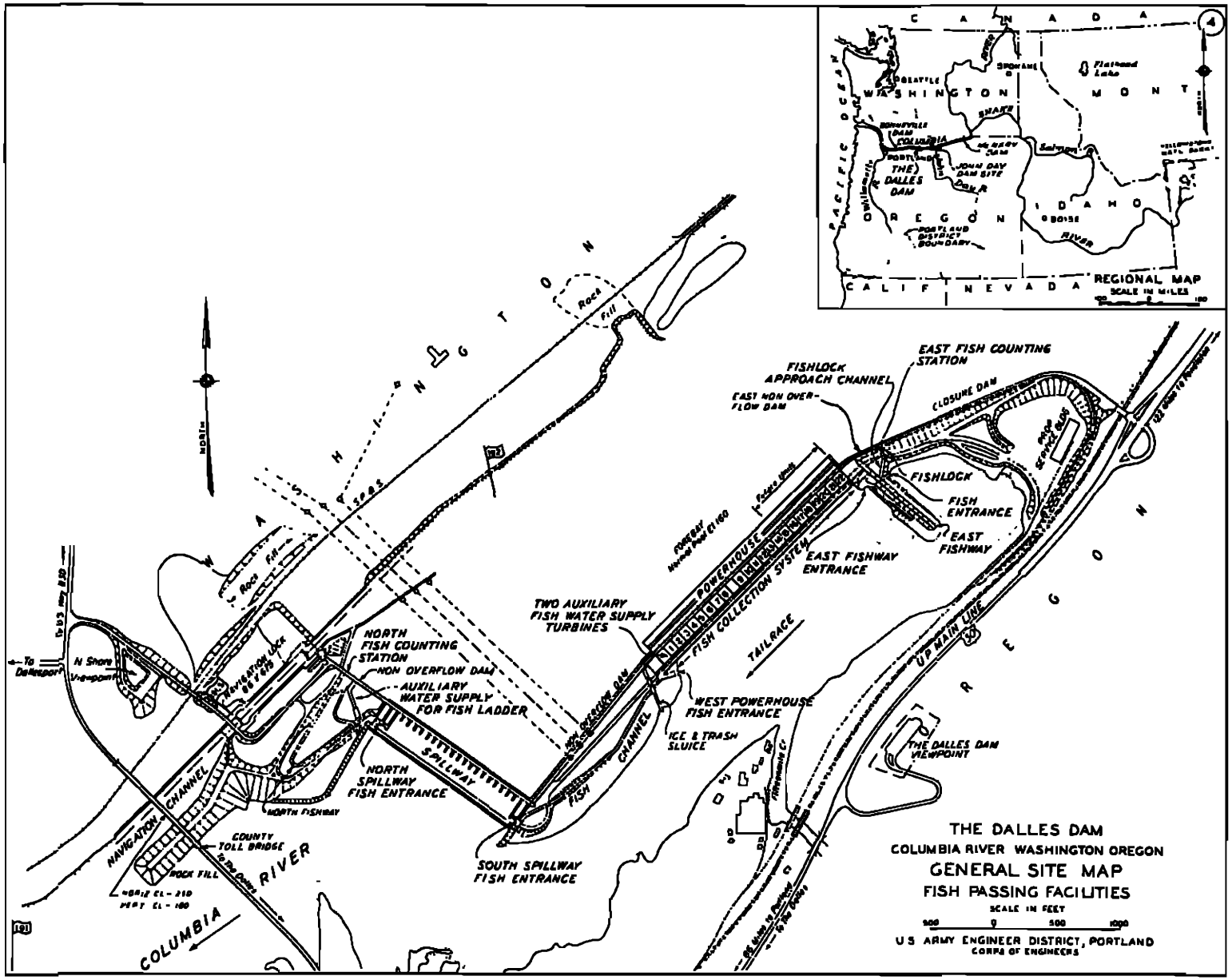
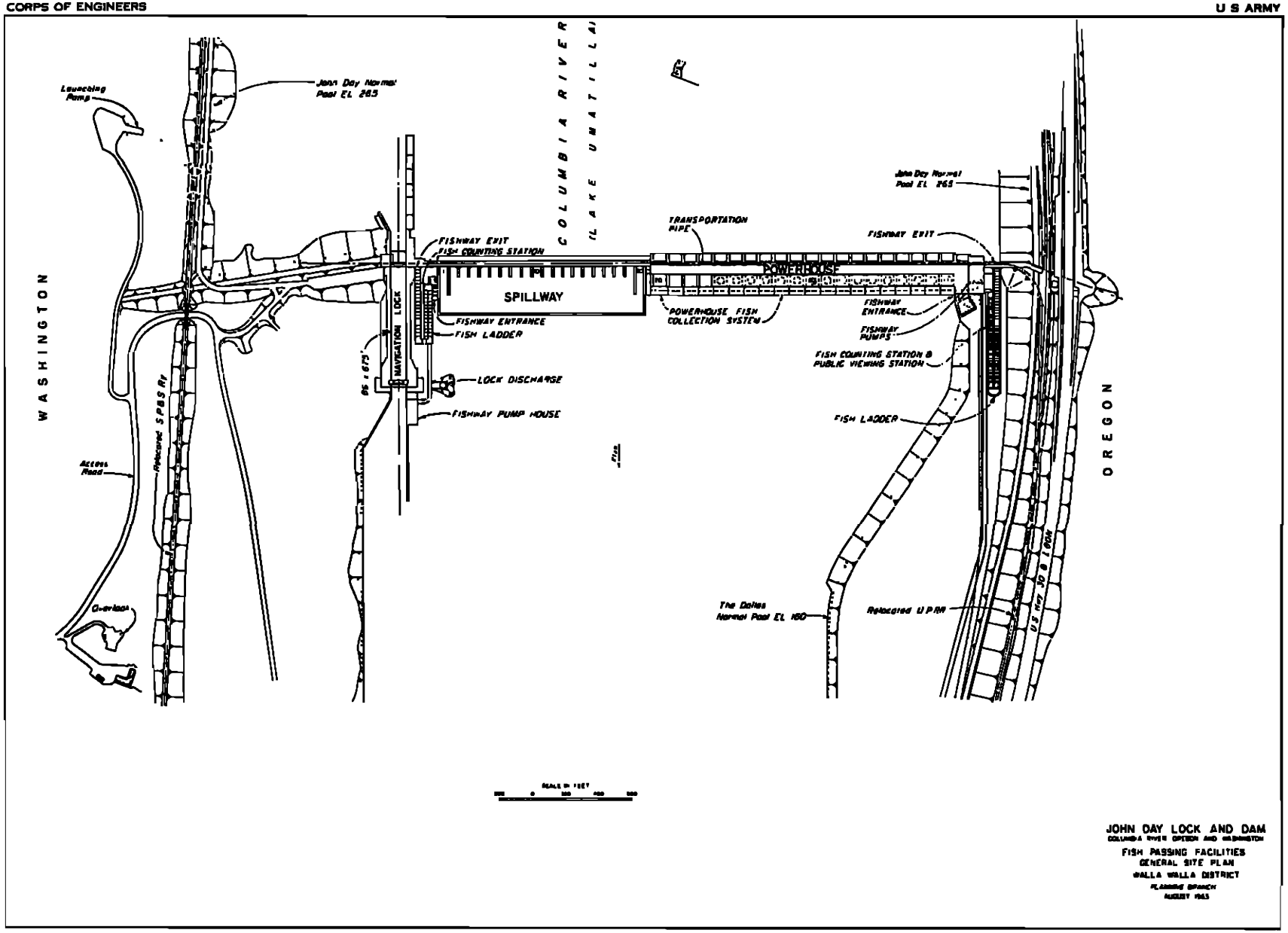


PLATE 21

PLATE 21


WASHINGTON
COLUMBIA RIVER
BRADFORD ISLAND
TAILRACE
FOREBAY
NORTH BONNEVILLE
BONNEVILLE
OREGON
WASHINGTON
OREGON
U.S. HWY 30
LEGEND
1 FISH ENTRANCE BAYS
2 FISHLOCKS
3 CONNECTION FROM FISHWAY INTO NAVIGATION LOCK (ABANDONED)
4 FISHLADDER (TANNER CREEK FINGERLING BY-PASS)
5 FINGERLING BY-PASS
6 ICE AND TRASH SLUICE
VICINITY MAP
BONNEVILLE DAM
COLUMBIA RIVER, OREGON AND WASHINGTON
GENERAL SITE MAP
FISH PASSING FACILITIES
U S ARMY ENGINEER DISTRICT, PORTLAND
CL-144-54


REGIONAL MAP
SCALE IN MILES
CANADA
WASHINGTON
MONT
IDAHO
OREGON
CALIF
NEVADA
PACIFIC OCEAN
SEATTLE
SPOKANE
BONNEVILLE DAM
COLUMBIA
PORTLAND
THE DALLES DAM
JOHN DAY DAM SITE
BOISE
PORTLAND DISTRICT BOUNDARY
NORTH
Rock Fill
EAST FISH COUNTING STATION
FISHLOCK APPROACH CHANNEL
EAST NON OVER-FLOW DAM
CLOSURE DAM
FISHLOCK
FISH ENTRANCE
EAST FISHWAY
EAST FISHWAY ENTRANCE
POWERHOUSE
FISH COLLECTION SYSTEM
TWO AUXILIARY FISH WATER SUPPLY TURBINES
TAILRACE
NORTH FISH COUNTING STATION
NON OVERFLOW DAM
AUXILIARY WATER SUPPLY FOR FISH LADDER
NAVIGATION LOCK
N Shore Viewpoint
To Dallesport
WEST POWERHOUSE FISH ENTRANCE
ICE & TRASH SLUICE
NORTH SPILLWAY FISH ENTRANCE
SPILLWAY
FISH CHANNEL
NORTH FISHWAY
COUNTY TOLL BRIDGE
NAVIGATION CHANNEL
ROCK FILL
COLUMBIA RIVER
SOUTH SPILLWAY FISH ENTRANCE
UP MAIN LINE
THE DALLES DAM VIEWPOINT
THE DALLES DAM
COLUMBIA RIVER WASHINGTON OREGON
GENERAL SITE MAP
FISH PASSING FACILITIES
SCALE IN FEET
U S ARMY ENGINEER DISTRICT, PORTLAND
CORPS OF ENGINEERS



JOHN DAY LOCK AND DAM
COLUMBIA RIVER OREGON AND WASHINGTON
FISH PASSING FACILITIES
GENERAL SITE PLAN
WALLA WALLA DISTRICT
PLANNING BRANCH
AUGUST 1965

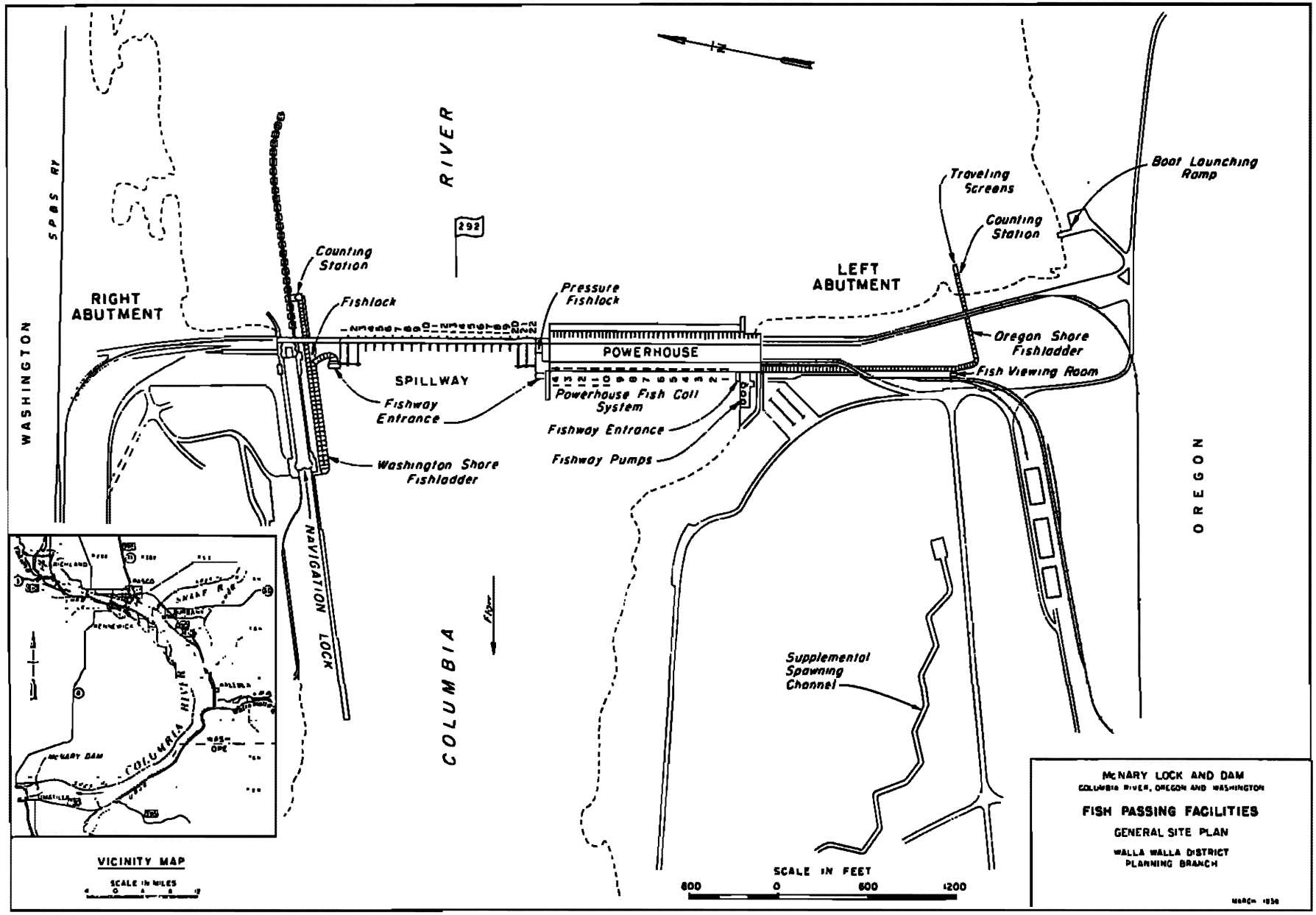
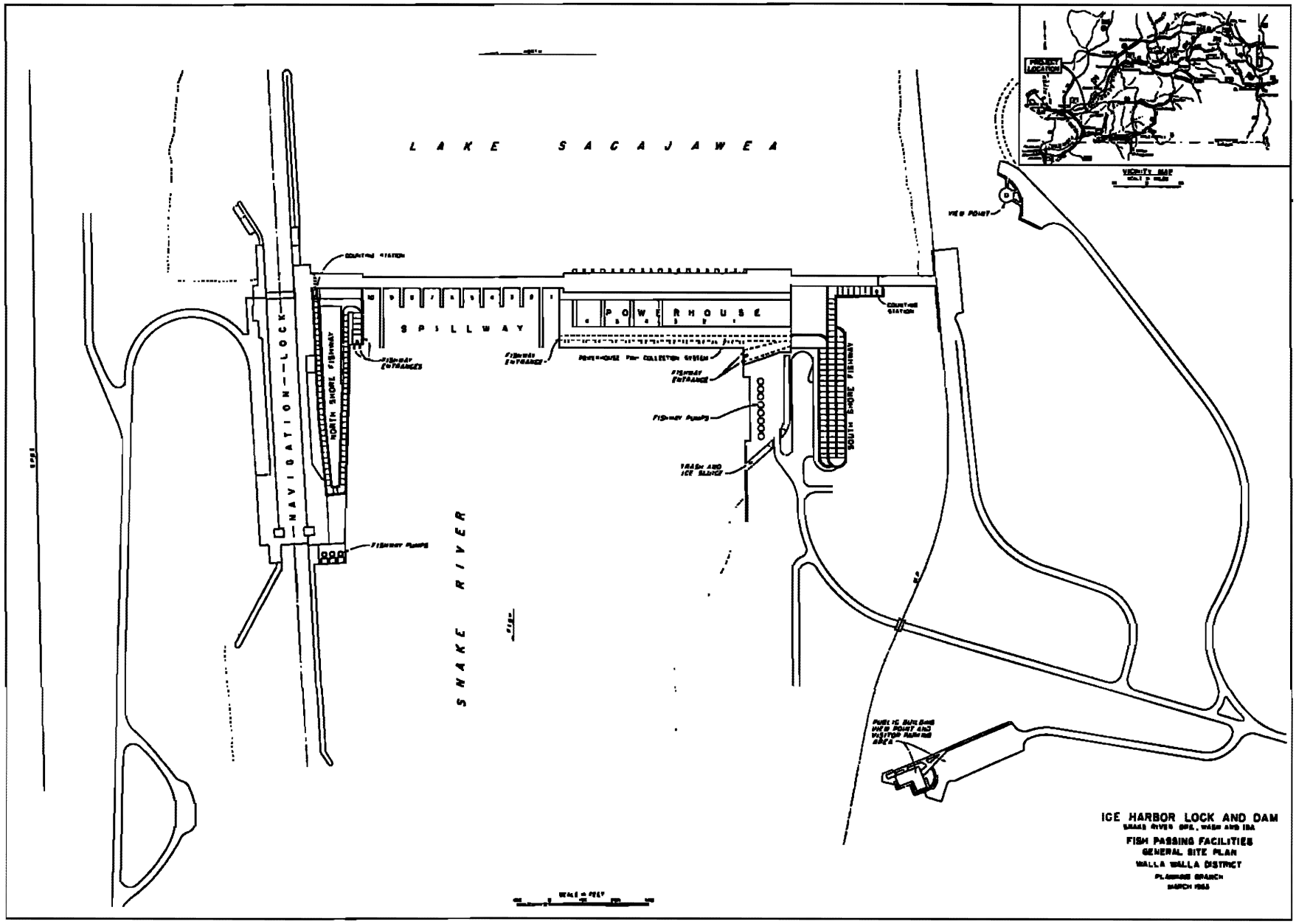
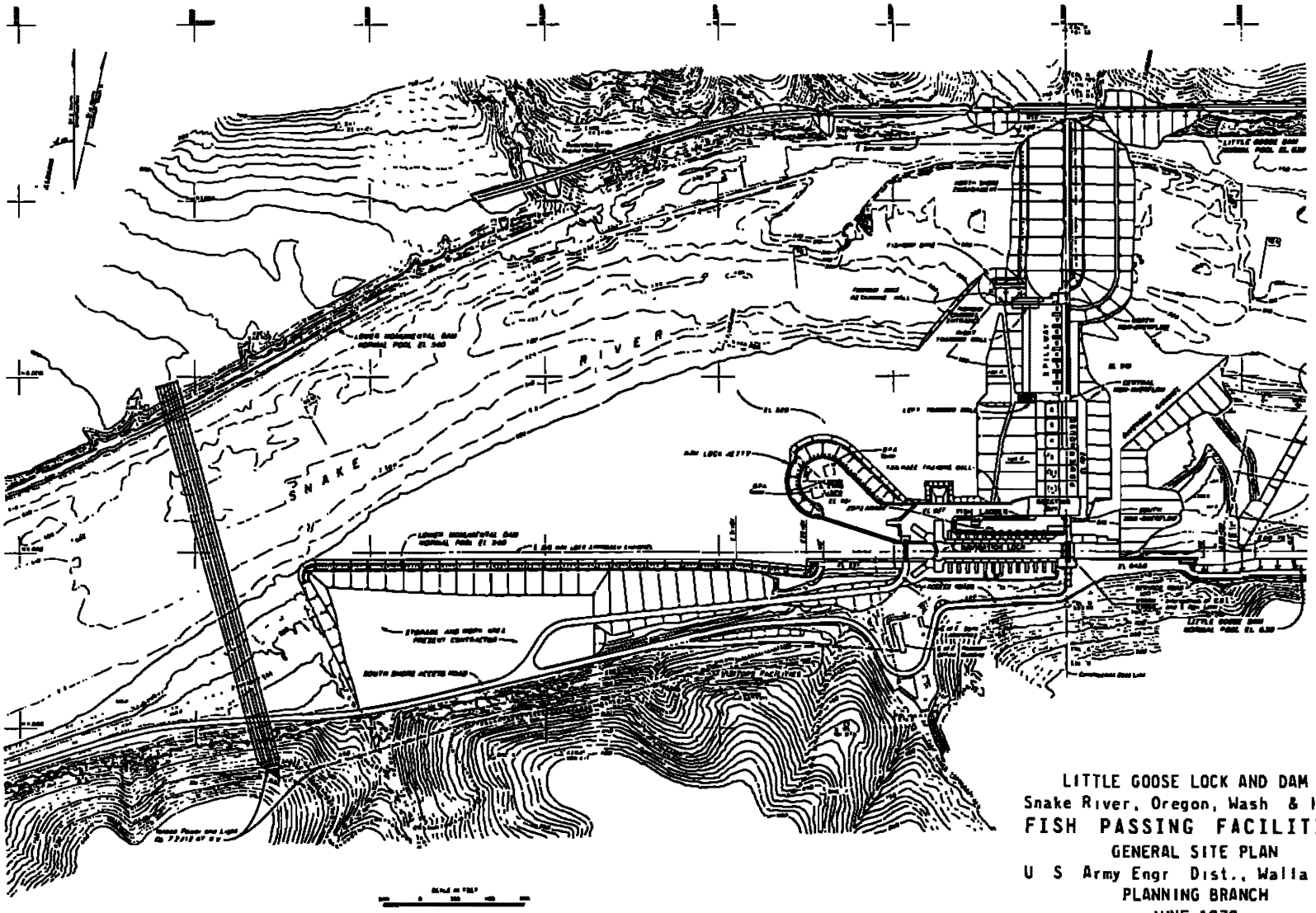

WASHINGTON
SPBS RY
RIGHT ABUTMENT
Counting Station
Fishlock
Pressure Fishlock
SPILLWAY
Fishway Entrance
Washington Shore Fishladder
NAVIGATION LOCK
COLUMBIA RIVER
Flow
POWERHOUSE
Powerhouse Fish Coll System
Fishway Entrance
Fishway Pumps
LEFT ABUTMENT
Traveling Screens
Counting Station
Boat Launching Ramp
Oregon Shore Fishladder
Fish Viewing Room
Supplemental Spawning Channel
OREGON
VICINITY MAP
SCALE IN MILES
SCALE IN FEET
600 0 600 1200
McNARY LOCK AND DAM
COLUMBIA RIVER, OREGON AND WASHINGTON
FISH PASSING FACILITIES
GENERAL SITE PLAN
WALLA WALLA DISTRICT
PLANNING BRANCH

PLATE 25



ICE HARBOR LOCK AND DAM
SNAKE RIVER BASIN, WASH AND IDA
FISH PASSING FACILITIES
GENERAL SITE PLAN
WALLA WALLA DISTRICT
PLANNING BRANCH
MARCH 1965



LITTLE GOOSE LOCK AND DAM
Snake River, Oregon, Wash & Idaho
FISH PASSING FACILITIES
GENERAL SITE PLAN
U S Army Engr Dist., Walla Walla
PLANNING BRANCH
JUNE 1970