

SYSTEM OPERATIONAL REQUEST for submittal on June 29th 2000 and further discussion on July 6th 2000.

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2000 -> PT 1

FROM: Nez Perce Tribe, State of Idaho, Columbia River Inter-Tribal Commission

DATE: June 29, 2000

SUBJECT: Dworshak Summer Operations Plan

SPECIFICATIONS:

1. Keep Dworshak at full pool, 1600 feet, through July 16th, 2000. Pass inflow until then using 47 degree water.
2. Ramp up flows to 14,000 cfs by mid-day July 17th, 2000, and hold through July 30th, 2000.
3. From July 31st through August 27th, 2000, reduce flows to 12,000 cfs.
4. From August 28th through September 3rd, 2000, reduce flows to 8,000 cfs.
5. From September 4th through 10th, 2000, reduce flows to 5,000 cfs.
6. From September 11th through 17th, 2000, reduce flows to 4,000 cfs.
7. From September 18th through 24th, 2000, reduce flows to 3,000 cfs.
8. For Brownlee reservoir, beginning July 3, 2000, outflows of 18,000 cfs and decrease to 10,000 cfs by the end of September (See attachment)

JUSTIFICATION

The State of Idaho and the Nez Perce Tribe have developed a SOR to meet water quality standards in the Clearwater River that afford balanced protection of subyearling salmonids and returning adults; maintains reservoir elevation at or above 1520 ft; optimizes the rearing of listed Clearwater River fall chinook; and minimizes impacts at the Dworshak National Fish Hatchery. This SOR is consistent with the Nez Perce Tribe-State of Idaho Plan for Total Dissolved Gas Short-Term Activity Exemption.

Water Temperature

Model results from John Yearsley, EPA- Seattle, suggest that a SOR based on the normative hydrograph concept, would keep Lower Granite water temperature at 20 degC or less by late summer, which would greatly benefit returning adults (The reader is referred to the work of Dr. Dale McCullough on the benefits of cooler water on returning adults during late summer: <http://www.critfc.org/tech/EPAreport.htm>). This SOR does keep water temperature at or below 20 degC for most of August and September (See attached).

Weather Considerations

The latest 30 & 90 day climate forecasts by the National Weather Service suggest a slightly warmer than normal summer, and near normal precipitation, for the Snake Basin. This pattern indicates that water temperatures will increase above the temperature standard, but not significantly or for extended periods of time with Dworshak operated as per this SOR. Because of the influence of our recent "La Nina" dominated winter, cloudiness will be a little more abundant this summer, which should enhance moderate temperatures.

Fishery Concerns

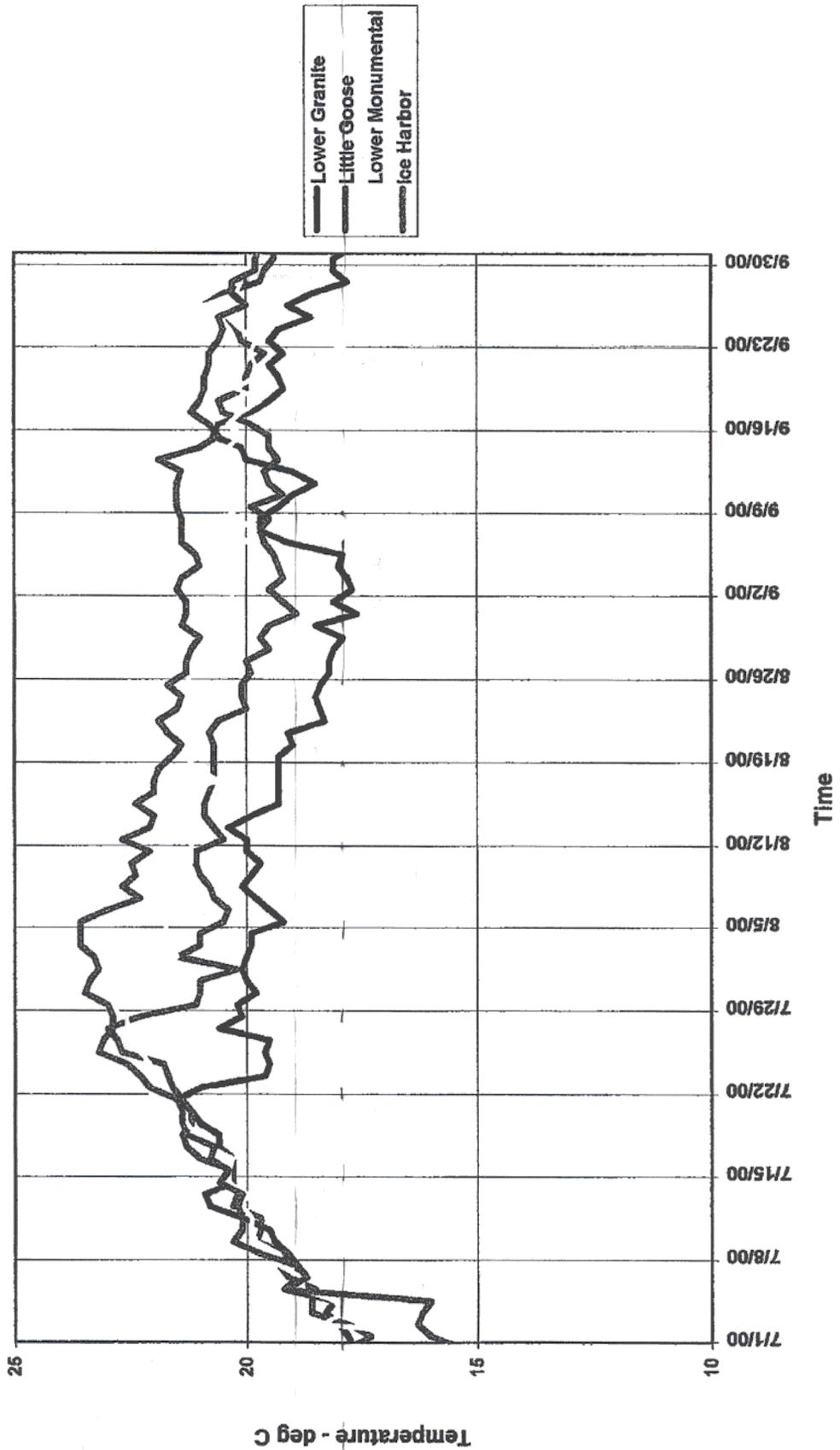
The Nez Perce Tribe and State of Idaho strongly believe that Dworshak should not be drafted below 1537 ft elevation before August 31 in order to reserve water for September subyearling and adult fall chinook and steelhead migration.

Subyearling fall chinook do not typically outmigrate from the Clearwater River until they obtain an average size of about 85 mm. Recent sampling (June 20th 2000) conducted on the Lower Clearwater River by the Nez Perce Tribe indicates a bi-modal size distribution. The average size of the smaller size group was 47 mm (n=42)(See Attachment). At an average growth rate of 1mm per day, these fish are not expected to reach smolt size (actively migrating) until near the end of July. In addition, passage data indicates that 40 % of listed subyearling Clearwater fall chinook migrate past Lower Granite Dam during September and October (See Attached). Implementation of this SOR is needed to accommodate these fish.

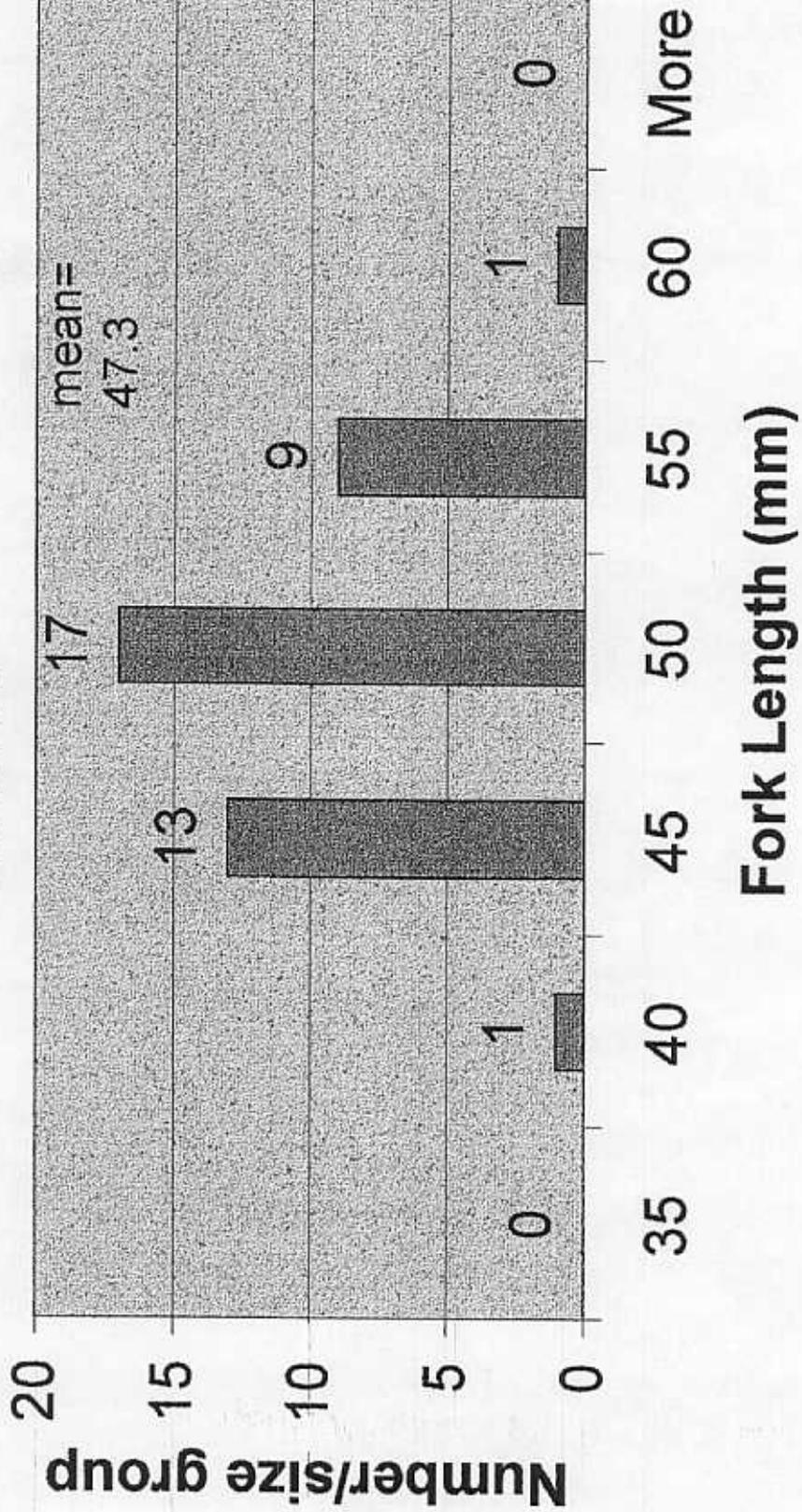
If this SOR cannot be accommodated, we would like the reasons specified in a detailed written response.

Attachments

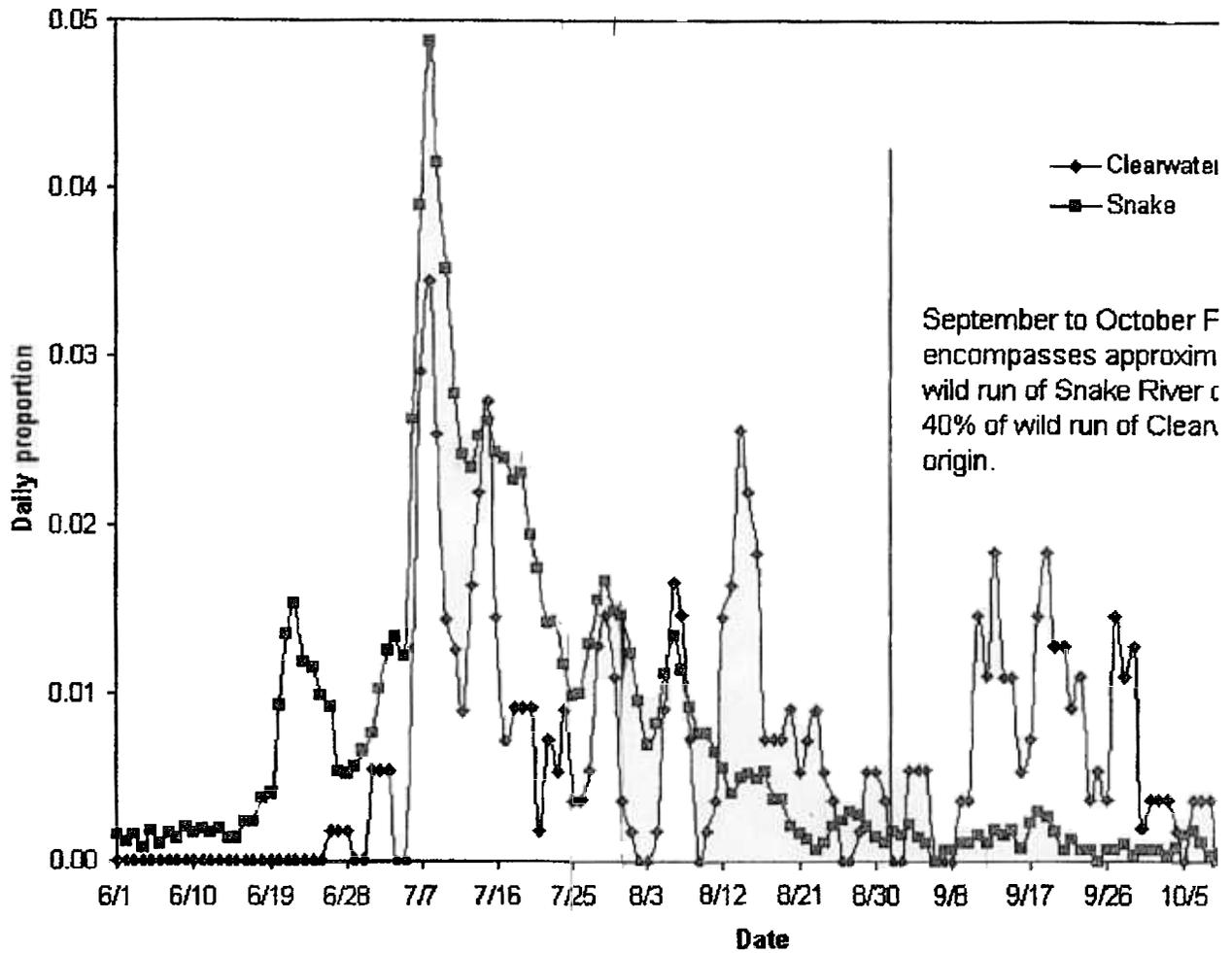
Figure __. Simulated Water Temperatures
NPT-ID Option 3

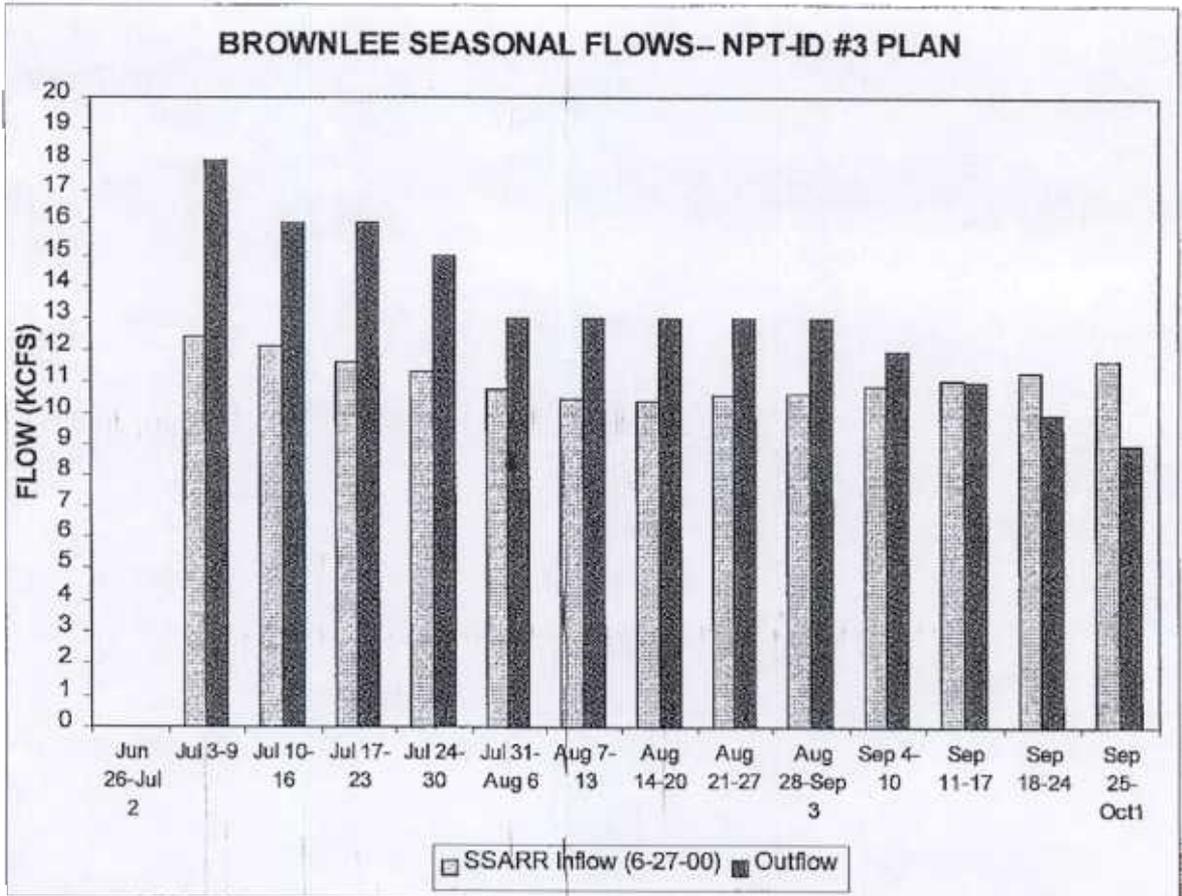


Clearwater R. Juvenile Fall Chinook - 6/20/00



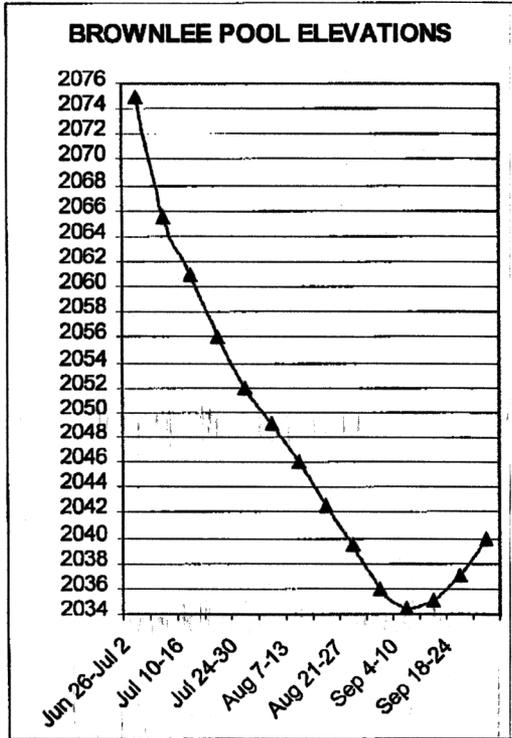
Average 1995 and 1998 wild subyearling chinook passage at Lower G Wild fish of Clearwater River vs Snake River origin (2-year average with 3-day smoothing)





Snake at Brownlee (BRN)

	27-Jun-00 Outflow	SSARR Inflow (6-27-00)	Storage Change (KaF)	BRN Pool Elevation (feet) end-of-period
WY 2000 SUMMER				
	(kcfs):	(kcfs):	(KaF)	
Jun 26-Jul 2				2075.0
Jul 3-9	18	12.4	-77	2065.5
Jul 10-16	16	12.1	-54	2061.0
Jul 17-23	16	11.6	-60	2056.0
Jul 24-30	15	11.3	-51	2052.0
Jul 31-Aug 6	13	10.7	-31	2049.0
Aug 7-13	13	10.5	-35	2046.0
Aug 14-20	13	10.4	-36	2042.5
Aug 21-27	13	10.6	-34	2039.5
Aug 28-Sep 3	13	10.7	-32	2036.0
Sep 4-10	12	10.9	-15	2034.5
Sep 11-17	11	11.1	1	2035.0
Sep 18-24	10	11.3	18	2037.0
Sep 25-Oct 1	9	11.7	37	2040.0
Total (KaF):	2,388	2,018	-370	
CRITFC Hydro Program		June Water Supply Forecast		



Snake at Lower Granite (LWG)

Grand Ronde @ Troy Clearwater at: Salmon at: Snake at:

27-Jun-00 NMFS Target flow
WY 2000
SUMMER
PLAN
 NPT-ID #3

DWR Orofino Whitebird Brownlee
 NPT-ID #3
 (kcfs) (kcfs) (kcfs) (kcfs) (kcfs)

	(kcfs)	Component	Totals:
Jun 26-Jul 2	52		
Jul 3-9	52	41	41
Jul 10-16	52	37	37
Jul 17-23	52	43	43
Jul 24-30	52	41	41
Jul 31-Aug 6	52	36	36
Aug 7-13	52	35	35
Aug 14-20	52	34	34
Aug 21-27	52	33	33
Aug 28-Sep 3	23	29	29
Sep 4-10		25	25
Sep 11-17		22	22
Sep 18-24		20	20
Sep 25-Oct 1		17	17

	(kcfs)	(kcfs)	(kcfs)	(kcfs)	(kcfs)
Jun 26-Jul 2					
Jul 3-9	2.1	4	6.3	11.0	18
Jul 10-16	1.7	5	4.7	9.6	16
Jul 17-23	1.3	14	3.7	8.2	16
Jul 24-30	1.0	14	3.2	7.5	15
Jul 31-Aug 6	0.8	12	2.9	6.8	13
Aug 7-13	0.8	12	2.7	6.1	13
Aug 14-20	0.7	12	2.5	5.7	13
Aug 21-27	0.7	12	2.3	5.4	13
Aug 28-Sep 3	0.7	8	2.1	5.1	13
Sep 4-10	0.7	5	2.0	4.9	12
Sep 11-17	0.6	4	1.8	4.6	11
Sep 18-24	0.6	3	1.7	4.3	10
Sep 25-Oct 1	0.6	1.5	1.5	4.1	9

(KaF) **Sum Total:**
JUL - SEP = 6,316 5,713

Tributary Monthly Totals (KaF):
 170 1,479 521 1,155 2,388

