



Fish Passage Center

Weekly Report #01 - 29

October 12,
2001

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SUMMARY OF EVENTS:

Reservoir Operations: Reservoir elevation changes over the past two weeks are illustrated in the following table. Libby outflow continues at 6 Kcfs. Releases from Hungry Horse will be maintained to provide a minimum flow at Columbia falls of 3.26 Kcfs. Albeni Falls is presently releasing near 18 Kcfs. The project is targeting an end of October lake elevation of 2053 to 2054 feet and is expected to reach an elevation of 2051 feet by November 15 to 20. Grand Coulee refilled to elevation 1283 feet by the end of September and filled an additional two feet since then.

Reservoir	Elevations (feet) September 28 – October 11
Libby	2431.25 – 2429.25
Hungry Horse	3534.09 – 3531.37
Grand Coulee	1282.80 – 1285.50
Dworshak	1516.99 – 1515.52
Brownlee	2051.46 – 2049.91

*As of midnight October 11, 2001.

The Upper Snake River, Boise River and Payette River system of reservoirs continue drafting slightly. The Boise system, Anderson Ranch, Arrowrock, Lucky Peak remained at 20% of capacity. The Payette River system comprised of Cascade and Deadwood reservoirs is at 37% of capacity compared to 38% two weeks ago. The Upper Snake River system comprised of Jackson Lake, Palisades, Grassy Lake, Island Park, Ririe, American Falls and Lake Walcott is at 9% of capacity compared to 10% last report.

Flows: Flows at McNary, Lower Granite, and Priest Rapids dams over the past two weeks averaged 75.8 Kcfs, 14.1 Kcfs and 63.3 Kcfs, respectively.

Smolt Monitoring Program: From the first to second week of this two-week reporting period, collection of subyearling chinook at Lower Granite, Little Goose, Lower Monumental, and McNary dams dropped between 39 and 84%, and passage indices at Bonneville Dam dropped 17%. Although the week-to-week drop at Bonneville Dam was comparatively small, there was a 40% drop in the subyearling chinook average passage index between this two-week reporting period (9/28-10/11) and the previous two-week reporting period (9/14-9/27).

Adult Fish Passage: At Bonneville Dam, counts of adult fall chinook ranged between 1,600 and 500 per day through the past two weeks with the cumulative count now 391,651 (end date 10/11). This compares with 185,037 for year 2000 and 168,729 for the 10-year average. Fish counts are decreasing through time, normal for this time of year, but overall, the upriver bright and tule fall chinook posted large numbers in 2001. Tule adult fall chinook topped 128,000 for the season with bright fall chinook still passing the dams. Tule fall chinook are destined for Bonneville Pool tributaries and Spring Creek National Fish Hatchery while the "bright" component of the fall chinook run are destined for most larger tributaries and streams in the basin including the Hanford Reach area. The adult fall chinook at The Dalles Dam topped 175,000 to date with 105,000 now past McNary Dam through October 11. About 12,700 adult fall chinook have been counted at Ice Harbor Dam, with the mid-Columbia count at Priest Rapids about 20,000. The majority of fall chinook counted at McNary Dam generally migrate to the Hanford Reach (including Priest Rapids Hatchery) and the Yakama River basin.

Note: This year's fall chinook run total at Bonneville Dam exceeded the highest total since counting began at the Dam in 1938.

Steelhead counts at Bonneville Dam ranged between 2,300 (early in the report week) to near 400 per day with the cumulative count now approaching 622,000, about 2.3 and 2.8 times greater than the respective year 2000 and 10-year average counts. The B-Run steelhead counts started August 26 and will continue through the end of the count season. B-Run steelhead are mainly destined for the Clearwater River and some tributaries of the Salmon River in Idaho. Returns of unclipped (mostly wild) steelhead exceed 147,300 to date and account for about 24% of the total run. About 56% of the fish counted at Bonneville have arrived at McNary Dam (N=346,671). Steelhead passage into the Snake River remained at high levels through the past 2-weeks with peak numbers of 12,000 early in the report week to 2,500-4,000 later in the report week. The cumulative count at Ice Harbor Dam now exceeds 221,000. This total was 2.1 and 2.8 times greater than the respective 2000 and 10-year average. Steelhead counts at Priest Rapids Dam have steadily declined to near 100 per day through the past two weeks with the season total exceeding 28,000, about 2.5 and 3.4 times greater than the respective 2000 and 10-year average. Steelhead passing Rocky Reach Dam will be destined for the Entiat, Methow, and Okanogan River basins or to Wells Hatchery. Greater than 16,500 steelhead have passed Wells Dam. Note: The Snake River and upper Columbia River dams should post record or near record returns for adult steelhead into both reaches this year.

Coho salmon counts at Bonneville Dam ranged from 600-1,500 per day through the report week with 236,360 through October 11, and compares with 69,937 in year 2000 and the 10-year average count of 26,737. Note: This year's run of coho has already exceeded the previous high count of coho salmon recorded at Bonneville Dam. The former record was set in 1986. Adult coho salmon normally spend two summers in the ocean with this

season's large return from the 2000 migration year of juvenile coho. Most coho salmon that pass Bonneville Dam are destined for the Bonneville pool tributaries and hatcheries with other coho returning to the Umatilla, Yakama, Snake, and upper Columbia River basins. So far, this run of coho is considered part of the early return, or Type-S Coho with the later run coho, Type-N normally returning from mid-October through November time frame.

Hatchery Releases.

Snake River – Releases of yearling and subyearling chinook, sockeye, and coho salmon and steelhead are completed for the 2001 migration season. Sockeye salmon will be released into Pettit, Alturas, and Redfish lakes in early October. Most of these fish will reside in the lakes through the fall and winter months and will migrate from the lakes in spring 2002.

Mid-Columbia [above McNary Dam] – Releases of yearling and subyearling chinook, sockeye, and coho salmon and steelhead are completed for the 2001 migration season. The final release of hatchery sockeye was completed into Lake Wenatchee on 9/27/01. The August/September releases of sockeye are expected to reside in the Lake through the fall and winter and migrate in spring 2002.

Lower Columbia [McNary Dam to Bonneville Dam] – Releases of yearling chinook, coho and steelhead are completed for the 2001 migration season.

Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
09/28/01	65.1	0.1	67.8	0.0	68.0	0.0	68.2	0.0	64.5	0.0	72.7	1.8	74.9	1.1
09/29/01	52.1	0.1	51.3	0.0	51.4	0.0	54.4	0.0	55.9	0.0	53.9	1.9	54.3	0.9
09/30/01	53.2	0.1	57.4	0.0	54.7	0.0	57.4	0.0	57.1	0.0	68.2	1.8	67.6	1.1
10/01/01	57.9	0.0	59.7	0.0	65.4	0.0	72.6	0.0	71.4	0.0	80.7	1.5	81.5	1.0
10/02/01	59.2	0.0	59.4	0.0	50.5	0.0	49.9	0.0	47.8	0.0	60.6	1.3	63.8	0.8
10/03/01	58.8	0.0	61.0	0.0	58.9	0.0	59.7	0.0	57.6	0.0	53.8	1.0	57.2	0.7
10/04/01	56.5	0.0	56.0	0.0	58.8	0.0	65.7	0.0	65.3	0.0	68.6	1.7	60.4	1.1
10/05/01	48.9	0.0	50.5	0.0	45.3	0.0	42.7	0.0	40.1	0.0	53.9	1.6	60.6	0.7
10/06/01	38.6	0.0	40.1	0.0	38.5	0.0	45.3	0.0	46.2	0.0	48.3	1.5	41.7	0.9
10/07/01	41.8	0.0	43.7	0.0	43.1	0.0	40.7	0.0	38.4	0.0	40.2	1.5	43.9	0.9
10/08/01	52.8	0.0	55.1	0.0	59.6	0.0	62.0	0.0	59.9	0.0	63.3	1.7	64.0	1.0
10/09/01	62.8	0.0	61.0	0.0	53.5	0.0	56.3	0.0	56.0	0.0	68.2	1.5	69.0	0.9
10/10/01	61.6	0.0	60.6	0.0	57.4	0.0	59.6	1.9	57.3	0.0	75.8	0.9	80.6	0.9
10/11/01	55.9	0.0	57.9	0.0	57.8	0.0	61.3	0.3	62.0	0.0	67.5	0.8	66.8	1.0

Daily Average Flow and Spill (in kcfs) at Snake Basin Projects

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
09/28/01	1.5	0.0	9.6	7.8	15.2	0.0	15.8	0.0	16.2	0.0	17.3	0.0
09/29/01	1.5	0.0	9.4	7.7	14.2	0.0	13.0	0.0	13.6	0.0	12.2	0.0
09/30/01	1.5	0.0	8.8	7.3	14.3	0.0	13.5	0.0	13.9	0.0	12.2	0.0
10/01/01	1.5	0.0	9.5	11.0	14.0	0.0	13.1	0.0	13.7	0.0	13.0	0.0
10/02/01	1.5	0.0	10.8	12.8	14.3	0.0	13.0	0.0	13.1	0.0	12.4	0.0
10/03/01	1.5	0.0	9.2	10.4	14.8	0.0	14.6	0.0	14.8	0.0	14.9	0.0
10/04/01	1.5	0.0	9.5	12.9	13.0	0.0	12.4	0.0	13.1	0.0	12.3	0.0
10/05/01	1.4	0.0	9.5	10.2	13.0	0.5	12.2	0.0	12.6	0.0	11.8	0.0
10/06/01	1.4	0.0	9.5	8.9	14.9	0.0	13.7	0.0	13.8	0.0	14.6	0.0
10/07/01	1.3	0.0	9.9	11.6	14.8	0.0	11.9	0.0	12.4	0.0	11.6	0.0
10/08/01	1.4	0.0	9.6	8.9	15.3	0.0	14.0	0.0	14.1	0.0	15.2	0.0
10/09/01	1.4	0.0	9.9	8.2	12.1	0.0	12.3	0.0	12.3	0.0	11.1	0.0
10/10/01	1.5	0.0	9.5	8.2	13.0	0.0	13.2	0.0	13.1	0.0	12.9	0.0
10/11/01	1.4	0.0	---	---	14.4	0.0	18.7	0.0	14.9	0.0	13.8	0.0

Daily Average Flow and Spill (in kcfs) at Lower Columbia Projects

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
09/28/01	77.9	0.0	76.0	0.0	80.1	0.0	82.0	2.3	0.6	72.4
09/29/01	75.7	0.0	70.8	0.0	71.9	0.0	81.1	2.3	0.5	71.6
09/30/01	73.3	0.0	70.4	0.0	73.9	0.0	78.3	2.3	0.5	68.8
10/01/01	87.4	0.0	86.4	0.0	89.6	0.0	93.3	2.3	0.5	83.8
10/02/01	97.6	0.0	99.4	0.0	101.0	0.0	101.0	2.3	0.5	91.5
10/03/01	72.4	0.0	77.5	0.0	81.7	0.0	90.4	2.3	0.5	80.9
10/04/01	62.1	0.0	66.5	0.0	67.2	0.0	78.4	2.3	0.5	69.0
10/05/01	81.1	0.0	77.9	0.0	81.5	0.0	80.3	2.3	0.6	71.0
10/06/01	57.8	0.0	68.0	0.0	70.8	0.0	79.5	2.3	0.5	70.3
10/07/01	62.5	0.0	58.3	0.0	63.0	0.0	77.6	2.3	0.5	68.4
10/08/01	67.5	0.0	66.1	0.0	68.7	0.0	72.3	2.3	0.5	63.1
10/09/01	73.9	0.0	73.3	0.0	76.7	0.0	73.0	2.3	0.0	64.3
10/10/01	88.3	0.0	88.2	0.0	92.6	0.0	93.2	2.3	0.1	84.4
10/11/01	83.4	0.0	74.9	0.0	75.0	0.0	90.7	2.3	0.0	82.0

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary									
From:	9/28/01	to	10/11/01						
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
IDFG	Sawtooth	SO	UN	2002	10,000	10-01-01	10-01-01	Pettit Lake	Salmon River
IDFG	Sawtooth	SO	UN	2002	20,000	10-01-01	10-01-01	Alturas Lake	Salmon River
IDFG	Sawtooth	SO	UN	2002	90,000	10-01-01	10-01-01	Redfish Lake	Salmon River
IDFG Total					120,000				
ODFW	Lookingglass	CH1	SP	2002	77,000	10-02-01	10-02-01	Grande Ronde Acclim Pd	Grande Ronde River
ODFW Total					77,000				
Grand Total					197,000				

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			#	<u>Boundary</u>			#	<u>Grand Coulee</u>			#	<u>Grand C. Tlwr</u>			#	<u>Chief Joseph</u>			#
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
9/28	101	102	102	24	101	102	102	24	100	100	100	24	98	99	100	24	98	99	99	23
9/29	101	101	102	24	101	101	101	24	99	99	100	24	97	98	99	20	98	98	98	23
9/30	100	101	101	24	101	101	102	24	99	99	100	24	98	99	101	24	98	98	99	23
10/1	101	101	102	24	102	102	103	24	99	100	100	24	98	99	101	20	98	99	99	23
10/2	102	102	103	24	102	102	103	24	99	99	100	24	98	99	102	24	98	99	99	23
10/3	101	101	102	24	101	101	101	24	99	99	99	22	97	98	100	18	98	98	99	23
10/4	100	100	101	24	100	100	101	24	99	99	99	24	97	98	100	20	98	98	99	23
10/5	100	100	100	24	100	100	101	24	99	99	100	23	98	98	101	20	98	99	99	23
10/6	100	101	101	24	100	100	101	24	99	100	100	21	98	99	101	24	99	99	99	18
10/7	101	101	102	24	100	100	100	24	99	99	99	24	99	100	102	24	98	98	99	23
10/8	101	102	103	24	100	100	100	24	99	99	99	24	98	99	101	24	98	98	99	23
10/9	100	100	101	24	99	100	100	24	98	99	99	24	97	97	99	24	97	97	98	23
10/10	100	100	101	24	100	100	101	24	99	99	100	24	97	98	99	24	98	98	99	23
10/11	100	100	100	13	100	100	100	24	99	99	100	24	97	98	100	24	98	98	98	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			#	<u>Wells</u>			#	<u>Wells Dwnstrm</u>			#	<u>Rocky Reach</u>			#	<u>Rocky R. Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
9/28	100	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/29	99	100	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/30	99	100	101	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/1	100	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/2	101	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/3	100	101	101	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/4	100	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/5	100	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/6	100	101	103	18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/7	100	102	103	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/8	100	101	102	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/9	99	100	101	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/10	99	101	101	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/11	99	100	101	23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			#	<u>Rock I. Tlwr</u>			#	<u>Wanapum</u>			#	<u>Wanapum Tlwr</u>			#	<u>Priest Rapids</u>			#
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
9/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/30	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/1	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/2	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/3	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/6	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/10	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
10/11	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia and Snake River Sites

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High	Avg	Avg	High
9/28	---	---	---	0	100	101	102	24	105	106	106	24	---	---	---	0	---	---	---	0
9/29	---	---	---	0	100	100	101	24	105	106	107	24	---	---	---	0	---	---	---	0
9/30	---	---	---	0	100	101	102	24	105	106	107	24	---	---	---	0	---	---	---	0
10/1	---	---	---	0	101	102	103	24	105	106	107	24	---	---	---	0	---	---	---	0
10/2	---	---	---	0	100	101	102	24	105	106	107	24	---	---	---	0	---	---	---	0
10/3	---	---	---	0	100	101	102	24	105	105	107	24	---	---	---	0	---	---	---	0
10/4	---	---	---	0	100	100	101	24	105	106	108	24	---	---	---	0	---	---	---	0
10/5	---	---	---	0	99	100	101	24	105	106	107	24	---	---	---	0	---	---	---	0
10/6	---	---	---	0	100	101	101	20	106	106	108	18	---	---	---	0	---	---	---	0
10/7	---	---	---	0	99	99	100	24	106	106	107	24	---	---	---	0	---	---	---	0
10/8	---	---	---	0	98	99	99	24	105	105	106	10	---	---	---	0	---	---	---	0
10/9	---	---	---	0	98	99	100	24	104	105	106	24	---	---	---	0	---	---	---	0
10/10	---	---	---	0	99	99	100	24	105	105	106	24	---	---	---	0	---	---	---	0
10/11	---	---	---	0	98	99	99	24	104	105	105	24	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High	Avg	Avg	High
9/28	---	---	---	0	95	95	95	1	95	96	96	21	---	---	---	0	---	---	---	0
9/29	---	---	---	0	96	96	98	15	96	96	97	19	---	---	---	0	---	---	---	0
9/30	---	---	---	0	98	99	100	23	96	97	98	18	---	---	---	0	---	---	---	0
10/1	---	---	---	0	97	98	99	22	96	97	98	24	---	---	---	0	---	---	---	0
10/2	---	---	---	0	---	---	---	0	95	95	96	9	---	---	---	0	---	---	---	0
10/3	---	---	---	0	95	95	95	4	96	96	97	9	---	---	---	0	---	---	---	0
10/4	---	---	---	0	---	---	---	0	96	96	97	7	---	---	---	0	---	---	---	0
10/5	---	---	---	0	95	95	95	5	98	98	105	10	---	---	---	0	---	---	---	0
10/6	---	---	---	0	---	---	---	0	96	96	97	7	---	---	---	0	---	---	---	0
10/7	---	---	---	0	---	---	---	0	95	95	96	6	---	---	---	0	---	---	---	0
10/8	---	---	---	0	---	---	---	0	95	95	96	9	---	---	---	0	---	---	---	0
10/9	---	---	---	0	---	---	---	0	96	96	98	14	---	---	---	0	---	---	---	0
10/10	---	---	---	0	---	---	---	0	95	95	96	10	---	---	---	0	---	---	---	0
10/11	---	---	---	0	---	---	---	0	95	95	96	5	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Snake and Lower Columbia River Sites

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High	Avg	Avg	High
9/28	---	---	---	0	---	---	---	0	97	97	97	24	101	103	112	24	100	101	102	24
9/29	---	---	---	0	---	---	---	0	97	97	97	24	99	100	101	24	99	100	101	24
9/30	---	---	---	0	---	---	---	0	96	97	97	24	99	100	101	24	99	100	101	24
10/1	---	---	---	0	---	---	---	0	96	96	97	24	99	100	100	24	100	101	102	24
10/2	---	---	---	0	---	---	---	0	96	96	97	24	99	99	100	24	100	101	104	24
10/3	---	---	---	0	---	---	---	0	96	96	97	24	99	99	99	24	100	101	103	24
10/4	---	---	---	0	---	---	---	0	96	97	98	22	99	99	101	24	100	101	102	24
10/5	---	---	---	0	---	---	---	0	96	96	97	24	99	100	100	24	100	101	101	24
10/6	---	---	---	0	---	---	---	0	96	96	96	19	99	99	100	19	100	100	102	24
10/7	---	---	---	0	---	---	---	0	95	96	96	24	99	99	100	24	99	99	100	24
10/8	---	---	---	0	---	---	---	0	95	95	96	24	99	99	100	24	98	99	99	24
10/9	---	---	---	0	---	---	---	0	95	95	95	4	98	99	100	24	98	98	99	24
10/10	---	---	---	0	---	---	---	0	96	96	96	20	100	103	109	24	98	98	99	24
10/11	---	---	---	0	---	---	---	0	95	95	96	15	99	100	102	24	97	98	98	24

Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#		
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	AVG
9/28	100	101	102	24	100	100	101	24	---	---	---	0	---	---	---	0	---	---	---	0
9/29	100	100	102	24	99	99	100	24	---	---	---	0	---	---	---	0	---	---	---	0
9/30	99	100	102	24	98	99	100	24	---	---	---	0	---	---	---	0	---	---	---	0
10/1	99	99	101	24	98	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
10/2	101	102	104	24	99	100	100	23	---	---	---	0	---	---	---	0	---	---	---	0
10/3	101	102	104	21	99	99	100	24	---	---	---	0	---	---	---	0	---	---	---	0
10/4	101	101	102	24	99	99	100	24	---	---	---	0	---	---	---	0	---	---	---	0
10/5	101	102	103	24	99	100	100	24	---	---	---	0	---	---	---	0	---	---	---	0
10/6	100	100	101	24	99	100	101	24	---	---	---	0	---	---	---	0	---	---	---	0
10/7	99	99	99	24	98	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
10/8	98	99	99	24	98	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
10/9	97	98	98	24	97	98	98	24	---	---	---	0	---	---	---	0	---	---	---	0
10/10	98	99	99	24	98	98	98	24	---	---	---	0	---	---	---	0	---	---	---	0
10/11	98	98	99	24	98	98	99	24	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Skamania</u>			<u>CamasWashugal</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#		
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	AVG
9/28	---	---	---	0	98	98	98	23	100	100	101	23	---	---	---	0	---	---	---	0
9/29	---	---	---	0	98	98	98	22	100	100	102	23	---	---	---	0	---	---	---	0
9/30	---	---	---	0	98	98	99	23	100	100	101	22	---	---	---	0	---	---	---	0
10/1	---	---	---	0	99	99	99	23	100	101	101	23	---	---	---	0	---	---	---	0
10/2	---	---	---	0	98	99	99	23	100	100	101	23	---	---	---	0	---	---	---	0
10/3	---	---	---	0	99	99	100	23	100	101	102	23	---	---	---	0	---	---	---	0
10/4	---	---	---	0	99	99	100	23	100	100	101	23	---	---	---	0	---	---	---	0
10/5	---	---	---	0	99	99	99	23	100	101	102	22	---	---	---	0	---	---	---	0
10/6	---	---	---	0	98	99	99	23	100	100	101	23	---	---	---	0	---	---	---	0
10/7	---	---	---	0	98	99	99	23	100	100	100	23	---	---	---	0	---	---	---	0
10/8	---	---	---	0	98	98	98	23	99	100	100	23	---	---	---	0	---	---	---	0
10/9	---	---	---	0	98	98	98	23	99	99	100	23	---	---	---	0	---	---	---	0
10/10	---	---	---	0	98	99	99	23	100	100	100	23	---	---	---	0	---	---	---	0
10/11	---	---	---	0	98	98	99	23	99	100	101	23	---	---	---	0	---	---	---	0

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/28/2001 *	---	---	---	---	0	0	1	---	0	---	4
09/29/2001	---	---	---	---	0	0	1	---	0	---	0
09/30/2001	---	---	---	---	0	0	0	---	0	---	0
10/01/2001	---	---	---	---	0	0	1	---	0	---	0
10/02/2001	---	---	---	---	0	0	0	---	0	---	0
10/03/2001	---	---	---	---	0	0	1	---	0	---	0
10/04/2001	---	---	---	---	1	0	3	---	0	---	0
10/05/2001	---	---	---	---	2	0	2	---	6	---	4
10/06/2001	---	---	---	---	2	0	0	---	0	---	0
10/07/2001	---	---	---	---	2	0	0	---	0	---	0
10/08/2001	---	---	---	---	0	0	0	---	0	---	0
10/09/2001	---	---	---	---	0	0	0	---	0	---	0
10/10/2001	---	---	---	---	1	0	0	---	0	---	0
10/11/2001	---	---	---	---	0	0	1	---	0	---	0
Total:	0	0	0	0	8	0	10	0	6	0	8
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	1	0	1	0	0	0	1
YTD	12,660	26,732	9,049	527	1,957,967	749,737	553,433	6,575	2,299,302	1,006,078	1,687,834

COMBINED SUBYEARLING CHINOOK

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/28/2001 *	---	---	---	---	490	67	24	---	564	---	615
09/29/2001	---	---	---	---	365	101	7	---	384	---	428
09/30/2001	---	---	---	---	287	100	19	---	270	---	270
10/01/2001	---	---	---	---	239	98	47	---	312	---	254
10/02/2001	---	---	---	---	312	63	25	---	366	---	289
10/03/2001	---	---	---	---	128	61	23	---	504	---	190
10/04/2001	---	---	---	---	72	47	8	---	324	---	133
10/05/2001	---	---	---	---	40	41	10	---	120	---	100
10/06/2001	---	---	---	---	38	52	15	---	90	---	283
10/07/2001	---	---	---	---	36	41	6	---	42	---	158
10/08/2001	---	---	---	---	35	42	8	---	100	---	208
10/09/2001	---	---	---	---	42	66	11	---	148	---	225
10/10/2001	---	---	---	---	58	39	9	---	116	---	315
10/11/2001	---	---	---	---	52	46	15	---	152	---	513
Total:	0	0	0	0	2,194	864	227	0	3,492	0	3,981
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	157	62	16	0	249	0	284
YTD	1	1	13	31	732,582	176,162	52,993	22,638	10,726,952	2,849,766	2,934,211

*The total, #days and average do not include the current day's data. *See sampling comments. [http://www.fpc.org/current daily/smpcomments.htm](http://www.fpc.org/current%20daily/smpcomments.htm). This means that one or more of the sites on this date had an incomplete or biased sample.

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

Two-Week Summary of Passage Indices

COMBINED COHO

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/28/2001 *	---	---	---	---	1	2	0	---	6	---	0
09/29/2001	---	---	---	---	1	1	0	---	0	---	0
09/30/2001	---	---	---	---	2	3	0	---	0	---	0
10/01/2001	---	---	---	---	1	6	0	---	0	---	0
10/02/2001	---	---	---	---	4	7	1	---	0	---	0
10/03/2001	---	---	---	---	2	3	0	---	0	---	0
10/04/2001	---	---	---	---	4	6	0	---	0	---	0
10/05/2001	---	---	---	---	3	1	0	---	0	---	0
10/06/2001	---	---	---	---	1	4	1	---	0	---	0
10/07/2001	---	---	---	---	0	1	0	---	0	---	0
10/08/2001	---	---	---	---	2	6	0	---	0	---	0
10/09/2001	---	---	---	---	1	2	0	---	0	---	0
10/10/2001	---	---	---	---	0	2	0	---	0	---	0
10/11/2001	---	---	---	---	0	3	0	---	0	---	4
Total:	0	0	0	0	22	47	2	0	6	0	4
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	2	3	0	0	0	0	0
YTD	0	0	0	6	58,262	21,813	2,688	45,428	147,027	81,644	2,163,715

COMBINED STEELHEAD

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/28/2001 *	---	---	---	---	37	35	20	---	6	---	0
09/29/2001	---	---	---	---	24	56	22	---	6	---	0
09/30/2001	---	---	---	---	41	31	15	---	18	---	0
10/01/2001	---	---	---	---	39	29	13	---	6	---	0
10/02/2001	---	---	---	---	28	28	22	---	6	---	0
10/03/2001	---	---	---	---	24	22	22	---	6	---	0
10/04/2001	---	---	---	---	29	23	17	---	6	---	0
10/05/2001	---	---	---	---	31	23	23	---	0	---	0
10/06/2001	---	---	---	---	40	16	22	---	0	---	0
10/07/2001	---	---	---	---	36	19	12	---	6	---	0
10/08/2001	---	---	---	---	25	8	11	---	8	---	4
10/09/2001	---	---	---	---	32	48	14	---	8	---	0
10/10/2001	---	---	---	---	34	37	11	---	4	---	12
10/11/2001	---	---	---	---	74	27	20	---	12	---	0
Total:	0	0	0	0	494	402	244	0	92	0	16
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	35	29	17	0	7	0	1
YTD	4,567	34,103	4,357	5,399	5,578,801	838,214	359,439	17,846	562,062	191,132	489,327

Two-Week Summary of Passage Indices

COMBINED SOCKEYE

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
09/28/2001 *	---	---	---	---	6	0	0	---	0	---	12
09/29/2001	---	---	---	---	1	0	0	---	0	---	4
09/30/2001	---	---	---	---	2	0	1	---	6	---	4
10/01/2001	---	---	---	---	0	0	0	---	0	---	13
10/02/2001	---	---	---	---	4	0	0	---	12	---	12
10/03/2001	---	---	---	---	1	1	1	---	0	---	4
10/04/2001	---	---	---	---	1	0	0	---	0	---	12
10/05/2001	---	---	---	---	0	0	0	---	0	---	4
10/06/2001	---	---	---	---	3	0	0	---	0	---	12
10/07/2001	---	---	---	---	2	0	0	---	0	---	4
10/08/2001	---	---	---	---	2	0	0	---	0	---	0
10/09/2001	---	---	---	---	2	0	0	---	0	---	4
10/10/2001	---	---	---	---	1	1	0	---	0	---	4
10/11/2001	---	---	---	---	4	0	0	---	0	---	0
Total:	0	0	0	0	29	2	2	0	18	0	89
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	2	0	0	0	1	0	6
YTD	24	0	0	0	4,681	9,832	1,022	3,028	284,739	103,971	106,948

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts

IMN (Collection) = Imnaha River Trap : Collection Counts

GRN (Collection) = Grande Ronde River Trap : Collection Counts

LEW (Collection) = Snake River Trap at Lewiston : Collection Counts

LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 1 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.

LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.

LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.

IMN data collected for the FPC by the Nez Perce Tribe.

Cumulative Adult Passage at Mainstem Dams Through: 10/11

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2001		2000		10-Yr Avg.		2001		2000		10-Yr Avg.		2001		2000		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	391,367	14,172	178,302	21,259	70,775	4,654	76,156	14,723	30,616	13,554	21,085	3,689	391,651	71,139	190,471	53,593	175,133	29,933
TDA	302,372	9,953	102,953	14,796	41,161	3,200	71,462	10,926	25,147	10,433	16,934	2,708	175,526	48,932	122,968	36,017	99,229	20,608
JDA	262,221	6,181	86,553	12,157	33,812	2,643	64,186	10,049	23,023	8,113	15,922	2,287	126,091	39,287	101,051	35,088	76,528	15,984
MCN	258,689	6,683	64,647	10,836	30,645	2,566	67,914	9,600	20,544	7,152	16,193	2,237	105,017	33,190	65,399	18,055	63,137	14,822
IHR	171,173	3,026	38,807	9,489	16,921	1,647	15,270	2,397	4,241	3,179	4,326	762	12,724	9,425	6,094	8,790	3,732	2,124
LMN	180,787	1,784	35,520	10,336	15,613	1,755	19,287	1,612	4,680	3,277	4,108	777	12,196	7,231	5,038	8,490	2,733	1,885
LGS	174,823	2,990	34,330	10,152	14,769	1,744	15,929	2,803	4,204	3,788	3,944	847	9,485	6,305	3,013	5,135	1,677	1,064
LWG	171,958	3,136	33,822	10,318	13,830	1,676	13,735	3,804	3,939	3,756	4,106	857	7,715	7,237	3,312	5,309	1,411	950
PRD	50,379	987	20,098	1,092	9,843	292	53,170	3,207	22,306	2,504	14,742	806	19,951	5,801	35,299	5,556	13,373	2,099
RIS	39,785	1,761	14,850	1,558	7,292	362	48,844	13,086	20,251	12,056	12,475	2,102	9,131	4,929	7,296	2,572	4,183	1,300
RRH	15,895	543	5,336	392	1,847	90	39,174	5,548	14,633	4,198	6,239	868	7,441	3,325	4,569	1,215	2,517	894
WEL	9,994	887	2,130	457	869	97	33,244	4,882	6,447	3,709	3,571	703	4,808	2,186	1,633	1,081	961	334

DAM	Coho						Sockeye			Steelhead			
	2001		2000		10-Yr Avg.		10-Yr			10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack	2001	2000	Avg.	2001	2000	Avg.	2001
BON	236,360	5,948	69,937	9,972	26,737	3,208	114,934	93,398	46,485	621,916	272,856	223,445	147,363
TDA	40,604	1,716	24,167	4,340	6,738	1,149	102,562	73,383	36,197	456,971	200,244	153,946	117,528
JDA	27,760	1,744	19,097	3,044	5,374	984	107,870	88,372	38,896	407,763	207,279	136,592	94,381
MCN	13,000	1,075	10,151	915	2,400	360	97,188	60,242	37,156	346,671	117,924	107,483	82,448
IHR	640	58	737	181	87	18	28	215	30	221,083	106,577	80,173	40,331
LMN	229	63	325	110	37	12	32	291	37	200,887	94,496	69,422	37,479
LGS	133	2	134	0	17	0	74	296	42	190,209	80,657	57,161	36,928
LWG	98	27	331	26	45	3	36	299	37	177,481	84,428	57,163	35,813
PRD	3,640	636	307	27	42	3	111,319	89,547	44,813	28,015	10,970	8,222	**
RIS	2,101	0	1,311	0	136	0	104,849	76,515	39,210	26,543	10,151	6,805	15,110
RRH	238	0	340	0	36	0	66,224	57,428	23,367	20,144	7,803	4,633	9,769
WEL	9	0	0	0	4	0	74,490	59,944	22,410	16,505	5,815	3,519	7,498

PRD is through 10/09; RIS, RRH are through 10/07. WEL is through 10/10 and is from Douglas CO PUD.

LMN is missing 9/29 and 9/30. LGR counts for 10/6 don't appear complete.

**PRD is not reporting Wild Steelhead numbers.

These numbers were collected from the COE's Running Sums text files.

Wild steelhead numbers are included in the total.

Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.

Historic counts 1997 to present were obtained from the Corps of Engineers.

Two Week Transportation Summary

09/29/01 TO 10/12/01

Site	Data	Species					Grand Total
		CH0	CH1	CO	SO	ST	
LGR	Sum of NumberCollected	2,193	8	22	29	493	2,745
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	0	0	0	0	471	471
	Sum of Numbertrucked	2,158	7	20	26	0	2,211
	Sum of TotalProjectMortalities	35	1	2	3	22	63
LGS	Sum of NumberCollected	864		47	2	402	1,315
	Sum of NumberBarged	0		0	0	0	0
	Sum of NumberBypassed	0		0	0	385	385
	Sum of Numbertrucked	825		42	1	0	868
	Sum of TotalProjectMortalities	39		5	1	17	62
LMN	Sum of NumberCollected	227	10	2	2	244	485
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	0	0	0	0	239	239
	Sum of Numbertrucked	215	10	2	2	0	229
	Sum of TotalProjectMortalities	12	0	0	0	5	17
MCN	Sum of NumberCollected	3,492	6	6	18	92	3,614
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	3,393	6	6	17	91	3,513
	Sum of TotalProjectMortalities	99	0	0	1	1	101
Total Sum of NumberCollected		6,776	24	77	51	1,231	8,159
Total Sum of NumberBarged		0	0	0	0	0	0
Total Sum of NumberBypassed		0	0	0	0	1,095	1,095
Total Sum of Numbertrucked		6,591	23	70	46	91	6,821
Total Sum of TotalProjectMortalities		185	1	7	5	45	243

YTD Transportation Summary

TO: 10/12/01

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	731,879	1,957,964	58,244	4,681	5,578,486	8,331,254
	Sum of NumberBarged	651,045	1,867,778	55,289	4,115	5,270,209	7,848,436
	Sum of NumberBypassed	1	79,198	976	221	269,054	349,450
	Sum of NumberTrucked	77,077	6,588	1,834	309	36,926	122,734
	Sum of TotalProjectMortalities	3,756	4,399	145	36	2,296	10,632
LGS	Sum of NumberCollected	177,204	751,905	21,856	9,844	839,770	1,800,579
	Sum of NumberBarged	144,995	745,094	19,896	9,648	820,895	1,740,528
	Sum of NumberBypassed	2,531	53	47	1	4,810	7,442
	Sum of NumberTrucked	24,183	1,104	1,530	112	4,342	31,271
	Sum of TotalProjectMortalities	5,495	3,724	233	73	5,255	14,780
LMN	Sum of NumberCollected	52,905	553,431	2,672	1,022	359,304	969,334
	Sum of NumberBarged	42,822	529,615	1,868	983	343,630	918,918
	Sum of NumberBypassed	338	16,478	293	0	7,516	24,625
	Sum of NumberTrucked	8,879	5,819	504	32	5,529	20,763
	Sum of TotalProjectMortalities	866	1,519	7	7	2,629	5,028
MCN	Sum of NumberCollected	10,679,749	2,226,073	141,370	269,271	552,540	13,869,003
	Sum of NumberBarged	9,728,599	1,037,644	80,195	128,948	236,020	11,211,406
	Sum of NumberBypassed	529,460	1,181,681	60,173	139,208	310,382	2,220,904
	Sum of NumberTrucked	340,932	378	113	549	728	342,700
	Sum of TotalProjectMortalities	80,758	6,370	889	566	4,099	92,682
Total Sum of NumberCollected		11,641,737	5,489,373	224,142	284,818	7,330,100	24,970,170
Total Sum of NumberBarged		10,567,461	4,180,131	157,248	143,694	6,670,754	21,719,288
Total Sum of NumberBypassed		532,330	1,277,410	61,489	139,430	591,762	2,602,421
Total Sum of NumberTrucked		451,071	13,889	3,981	1,002	47,525	517,468
Total Sum of TotalProjectMortalities		90,875	16,012	1,274	682	14,279	123,122

