

PRELIMINARY DATA SUMMARY

for

Passage Behavior and Survival of Radio-tagged Hatchery Yearling Chinook Salmon at Ice Harbor Dam, 2004.

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Table 1. Average project and spillway operations at Ice Harbor Dam, 01 May – 06 June, 2004.

Operation	<u>Total Discharge (kcfs)</u>		<u>Total Spill (kcfs)</u>		<u>Percent Spill</u>	
	Mean	Range	Mean	Range	Mean	Range
Bulk Spill	86	30 – 156	71	21 – 93	84.6	55 – 100
Flat Spill	90	33 – 137	44	30 – 69	54.0	33 - 100

Table 2. Preliminary results of 2004 passage behavior and survival study for radio-tagged hatchery yearling chinook salmon at Ice Harbor Dam (the 10th and 90th percentiles are provided for travel time data; 95% confidence intervals are provided for passage efficiency and survival estimates).

Metric	Bulk Spill	Flat Spill
Median FB Residence Time	1.4 hrs (0.6 – 4.5 hrs)	2.4 hrs (0.9 – 9.7 hrs)
Median TR Egress (min)	23 min (16 – 66 min)	22 min (16 – 38 min)
Spill efficiency	98% (96 – 99%)	88% (83 – 92%)
Spill effectiveness	1.2:1 (1.0 - 1.3:1)	1.5:1 (1.3 – 1.8:1)
Fish passage efficiency	99% (98 – 100%)	95% (93 – 97%)
Relative spillway survival	97% (94 – 100%)	95% (93 – 97%)
Relative dam survival	93% (86-100%)	90% (85-94%)

Figure 1. Regression analysis of relative spillway passage survival and tailwater elevation for bulk and flat spill operations at Ice Harbor Dam, 2004.

