FISH PASSAGE CENTER

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MEMORANDUM

TO: Ron Boyce, ODFW

FROM: Jerry McCann

DATE: February 6, 2006

RE: Estimates of Collection Efficiency and Transportation Proportion for Subyearling
            Chinook originating above Lower Granite Dam 2006

Based on estimates of collection efficiency from PIT-tag groups that passed in summer spill
2005, we projected that approximately 53% of subyearling chinook originating above Lower
Granite Dam would be destined for transport in 2006. This estimate assumes that in-river
conditions and spill operations will be similar to those that occurred after June 20 in 2005.
Collection efficiency estimates were calculated using PIT-tagged subyearling Chinook released
above Lower Granite Dam from June 16 to July 6, 2005 (Table 1). This included acclimation and
research releases of hatchery subyearlings as well as wild fish released in the Snake and
Clearwater Rivers.

The overall transportation proportion we estimated reflects the probability of fish originating
above Lower Granite Dam experiencing transportation versus in-river migration. The estimated
probability applies to unmarked fish. The collection efficiency estimates are generated from PIT-
tags while the likelihood of being transported, once fish are guided into the collection system are
based on SMP estimated values for total collection and transportation. Since mortality occurs as
smolts migrate to downstream transportation sites prior to collection and actual transport, the
number of fish passing Lower Granite Dam and "destined" to the transport management strategy
will be higher than the actual number transported. The computed probability partitions this
mortality between fish in the transport and in-river management strategies.

Table 1. Estimates of Subyearling Collection Efficiency, Collection and Transportation proportions at Snake River dams and McNary Dam June 20 and later.

Site	Collection	CE	Transport	P(T)	P(J)
LGR	61,101	0.21	58,851	0.963	0.202
LGS	79,432	0.22	75,972	0.956	0.206
LMN	20,728	0.06	18,714	0.903	0.059
MCN	3,125,790	0.25	2,657,338	0.850	0.216