From David Benner, Fish Passage Center

	Forebay Average Apr-Aug 2003-2011 Elevation (ft)	Gross Storage (Kaf)	Gross Storage (af)
Bonneville Dam Av	74.8	708.5	708500
The Dalles	158.4	313	313000
John Day at MIP	262	2218.6	2218600

From: River Mile Index Main Stem (1972)
Rivermile from Mouth of Col

BON	146.1
TDA	191.5
JDA	215.6
MCN	292

	Miles	feet
Bon Pool	45.4	239712
TDA Pool	24.1	127248
JDA Pool	76.4	403392

Flwo Rate (cfs)*	Bonneville WTT (days)	The Dalles WTT (days)	John Day WTT (days)
150000	2.4	1.1	7.5
200000	1.8	0.8	5.6
250000	1.4	0.6	4.5
300000	1.2	0.5	3.7
350000	1.0	0.5	3.2
400000	0.9	0.4	2.8
450000	0.8	0.4	2.5
500000	0.7	0.3	2.2

Flow Rate (cfs) *	Bonneville WTT (ft/s)	The Dalles WTT (ft/s)	John Day WTT (ft/s)
150000	1.2	1.4	0.6
200000	1.6	1.9	0.8
250000	1.9	2.3	1.0
300000	2.3	2.8	1.3
350000	2.7	3.3	1.5
400000	3.1	3.7	1.7
450000	3.5	4.2	1.9
500000	3.9	4.7	2.1

Flow Rate (cfs) *	Bonneville WTT (knots)	The Dalles WTT (knots)	John Day WTT (knots)
150000	0.7	0.8	0.4
200000	0.9	1.1	0.5
250000	1.2	1.4	0.6
300000	1.4	1.7	0.7
350000	1.6	1.9	0.9
400000	1.8	2.2	1.0
450000	2.1	2.5	1.1
500000	2.3	2.8	1.2

WTT = the averaage rate for any hypothetical particale of water to transit the reservoirs associated with Bonneville, John Day and The Dalles dams

* Flows in the Columbia River, like many snow melt river systems, fluctuate widely from month to month and between years

Dr. Stanley Rice

Attachment 1