

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/15/2003 0:00	1586.10	2,180	711.37	419.04	4,220	3.86	1,840	17.08	11,800	12.61	12,800	
10/15/2003 0:15		2,190			4,220	3.86	1,840	17.04	11,600	12.60	12,800	
10/15/2003 0:30		2,180	711.36	419.01	4,200	3.86	1,840	17.06	11,700	12.60	12,800	
10/15/2003 0:45		2,190			4,180	3.86	1,840	17.04	11,600	12.60	12,800	
10/15/2003 1:00	1586.10	2,260	711.35	418.97	4,200	3.85	1,830	17.04	11,600	12.60	12,800	
10/15/2003 1:15		2,270			4,220	3.84	1,810	17.04	11,600	12.60	12,800	
10/15/2003 1:30		2,270	711.33	418.95	4,200	3.84	1,810	17.06	11,700	12.59	12,800	
10/15/2003 1:45		2,270			4,200	3.84	1,810	17.03	11,600	12.59	12,800	
10/15/2003 2:00	1586.07	2,270	711.34	418.91	4,220	3.83	1,800	17.01	11,500	12.59	12,800	
10/15/2003 2:15		2,270			4,180	3.82	1,790	17.00	11,500	12.58	12,800	
10/15/2003 2:30		2,270	711.31	418.87	4,200	3.82	1,790	17.00	11,500	12.58	12,800	
10/15/2003 2:45		2,270			4,200	3.82	1,790	16.95	11,400	12.57	12,700	
10/15/2003 3:00	1586.08	2,270	711.30	418.84	4,180	3.82	1,790	16.97	11,400	12.56	12,700	
10/15/2003 3:15		2,270			4,200	3.81	1,770	16.91	11,200	12.56	12,700	
10/15/2003 3:30		2,270	711.30	418.81	4,200	3.81	1,770	16.97	11,400	12.55	12,700	
10/15/2003 3:45		2,270			4,200	3.80	1,760	16.90	11,200	12.54	12,700	
10/15/2003 4:00	1586.08	2,290	711.28	418.78	4,170	3.80	1,760	16.86	11,100	12.53	12,700	
10/15/2003 4:15		2,640			4,180	3.80	1,760	16.87	11,100	12.53	12,700	
10/15/2003 4:30		2,960	711.28	418.75	4,200	3.80	1,760	16.83	11,000	12.52	12,600	
10/15/2003 4:45		3,230			4,200	3.79	1,750	16.80	10,900	12.51	12,600	
10/15/2003 5:00	1586.08	3,380	711.26	418.71	4,200	3.78	1,729	16.78	10,900	12.51	12,600	
10/15/2003 5:15		3,410			4,200	3.78	1,729	16.79	10,900	12.50	12,600	
10/15/2003 5:30		3,420	711.26	418.67	4,230	3.78	1,729	16.74	10,700	12.48	12,600	
10/15/2003 5:45		3,439			4,230	3.78	1,729	16.73	10,700	12.48	12,600	
10/15/2003 6:00	1586.09	3,439	711.21	418.64	4,200	3.78	1,729	16.72	10,700	12.48	12,600	
10/15/2003 6:15		3,410			4,200	3.78	1,729	16.69	10,600	12.47	12,500	
10/15/2003 6:30		3,410	711.21	418.65	4,200	3.77	1,719	16.68	10,600	12.47	12,500	
10/15/2003 6:45		3,410			4,200	3.77	1,719	16.66	10,500	12.45	12,500	
10/15/2003 7:00	1586.07	3,410	711.16	418.65	4,170	3.76	1,710	16.63	10,400	12.45	12,500	

¹ Source: All time and gauge data obtained from USGS.

² Source: Unless otherwise noted, all comments obtained from Corps of Engineers Operation Logs in response to FOIA request.

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THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/15/2003 7:15		3,410			4,200	3.76	1,710	16.60	10,300	12.44	12,500	
10/15/2003 7:30		3,410	711.15	418.66	4,200	3.76	1,710	16.57	10,300	12.43	12,400	
10/15/2003 7:45		3,410			4,200	3.76	1,710	16.58	10,300	12.41	12,400	
10/15/2003 8:00	1586.08	3,410	711.11	418.67	4,180	3.76	1,710	16.56	10,200	12.41	12,400	
10/15/2003 8:15		3,410			4,200	3.75	1,690	16.55	10,200	12.40	12,400	
10/15/2003 8:30		3,410	711.08	418.67	4,200	3.74	1,680	16.57	10,300	12.40	12,400	
10/15/2003 8:45		3,410			4,200	3.74	1,680	16.54	10,200	12.38	12,300	
10/15/2003 9:00	1586.09	3,410	711.05	418.67	4,400	3.74	1,680	16.55	10,200	12.37	12,300	
10/15/2003 9:15		3,410			4,440	3.74	1,680	16.56	10,200	12.36	12,300	
10/15/2003 9:30		3,410	711.02	418.69	4,400	3.74	1,680	16.59	10,300	12.36	12,300	
10/15/2003 9:45		3,420			4,400	3.74	1,680	16.61	10,400	12.31	12,200	
10/15/2003 10:00	1586.08	3,439	711.00	418.67	4,400	3.73	1,670	16.60	10,300	12.34	12,300	
10/15/2003 10:15		3,410			4,400	3.73	1,670	16.59	10,300	12.34	12,300	
10/15/2003 10:30		3,410	710.95	418.69	4,440	3.72	1,650	16.61	10,400	12.32	12,200	
10/15/2003 10:45		3,410			4,440	3.72	1,650	16.63	10,400	12.30	12,200	
10/15/2003 11:00	1586.08	3,410	710.94	418.69	4,440	3.72	1,650	16.60	10,300	12.30	12,200	
10/15/2003 11:15		3,410			4,450	3.72	1,650	16.59	10,300	12.29	12,100	
10/15/2003 11:30		3,410	710.87	418.69	4,440	3.71	1,640	16.66	10,500	12.26	12,100	
10/15/2003 11:45		3,420			4,420	3.70	1,630	16.65	10,500	12.27	12,100	
10/15/2003 12:00	1586.08	3,410	710.89	418.68	4,450	3.70	1,630	16.66	10,500	12.25	12,100	
10/15/2003 12:15		3,439			4,450	3.70	1,630	16.74	10,700	12.23	12,000	
10/15/2003 12:30		3,439	710.82	418.69	4,470	3.70	1,630	16.75	10,800	12.21	12,000	
10/15/2003 12:45		3,420			4,440	3.70	1,630	16.79	10,900	12.20	12,000	
10/15/2003 13:00	1586.06	3,420	710.84	418.69	4,420	3.69	1,620	16.83	11,000	12.19	11,900	
10/15/2003 13:15		3,410			4,400	3.69	1,620	16.84	11,000	12.16	11,900	
10/15/2003 13:30		3,420	710.76	418.64	4,440	3.68	1,600	16.88	11,200	12.15	11,900	
10/15/2003 1340												Corps calls SCL to alert to wet weather pattern and to let them know that Corps will probably be calling on them for flood control. Currently Ross is at elev 1586 and drafting. Winter flood control pool is 1592.1 on December 1. Today's allowable max. 1601. Corps asked SCL to stay

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	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												below 1592.
10/15/2003 13:45		3,420			4,440	3.68	1,600	16.90	11,200	12.13	11,800	
10/15/2003 14:00	1586.03	3,420	710.82	418.67	4,400	3.68	1,600	16.91	11,200	12.11	11,800	Corps contacts PSE to alert to upcoming high flows. U/B at 711. Normal winter pool is 707.9 beginning on 15 Nov. Today's allowable elevation is 722. Asked PSE not to fill above 711 unless Corps requested it. Corps will try to leave U/B full at the end of flood control operations, approx 720 feet.
10/15/2003 14:15		3,420			4,440	3.68	1,600	16.92	11,300	12.09	11,700	Corps leaves voice mail for Dave Brookings that we are likely to be in flood control mode on Friday 17 October.
10/15/2003 14:30		3,439		418.66	4,440	3.68	1,600	16.92	11,300	12.07	11,700	
10/15/2003 14:45		3,420			4,420	3.68	1,600	16.91	11,200	12.05	11,700	
10/15/2003 15:00	1586.03	3,420	710.75	418.64	4,440	3.68	1,600	16.94	11,300	12.02	11,600	
10/15/2003 15:15		3,420			4,440	3.68	1,600	16.91	11,200	12.02	11,600	
10/15/2003 15:30		3,420	710.68	418.64	4,440	3.67	1,590	16.92	11,300	11.99	11,500	
10/15/2003 15:45		3,420			4,440	3.67	1,590	16.88	11,200	11.97	11,500	
10/15/2003 16:00	1586.02	3,420	710.69	418.65	4,420	3.66	1,580	16.92	11,300	11.97	11,500	
10/15/2003 16:15		3,420			4,440	3.66	1,580	16.92	11,300	11.94	11,400	
10/15/2003 16:30		3,420	710.62	418.67	4,420	3.66	1,580	16.92	11,300	11.94	11,400	
10/15/2003 16:45		3,420			4,420	3.66	1,580	16.93	11,300	11.92	11,400	
10/15/2003 17:00	1586.02	3,410	710.60	418.71	4,400	3.66	1,580	16.88	11,200	11.93	11,400	
10/15/2003 17:15		3,420			4,440	3.66	1,580	16.89	11,200	11.91	11,400	
10/15/2003 17:30		3,420	710.55	418.73	4,440	3.66	1,580	16.91	11,200	11.91	11,400	
10/15/2003 17:45		3,420			4,440	3.66	1,580	16.90	11,200	11.90	11,400	
10/15/2003 18:00	1586.02	3,420	710.51	418.75	4,420	3.66	1,580	16.91	11,200	11.90	11,400	
10/15/2003 18:15		3,420			4,440	3.65	1,560	16.90	11,200	11.90	11,400	
10/15/2003 18:30		3,439	710.50	418.76	4,440	3.65	1,560	16.91	11,200	11.89	11,300	
10/15/2003 18:45		3,420			4,400	3.65	1,560	16.86	11,100	11.91	11,400	
10/15/2003 19:00	1586.01	3,410	710.43	418.79	4,400	3.64	1,550	16.91	11,200	11.91	11,400	
10/15/2003 19:15		3,410			4,440	3.64	1,550	16.91	11,200	11.92	11,400	
10/15/2003 19:30		3,420	710.43	418.81	4,400	3.64	1,550	16.89	11,200	11.93	11,400	

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Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/15/2003 19:45		3,380			4,400	3.64	1,550	16.89	11,200	11.94	11,400	
10/15/2003 20:00	1585.98	3,290	710.36	418.84	4,400	3.64	1,550	16.90	11,200	11.95	11,500	
10/15/2003 20:15		3,230			4,400	3.64	1,550	16.83	11,000	11.94	11,400	
10/15/2003 20:30		3,150	710.37	418.85	4,400	3.64	1,550	16.86	11,100	11.97	11,500	
10/15/2003 20:45		3,070			4,400	3.64	1,550	16.87	11,100	11.98	11,500	
10/15/2003 21:00	1585.95	2,990	710.31	418.87	4,420	3.64	1,550	16.89	11,200	12.01	11,600	
10/15/2003 21:15		2,950			4,400	3.64	1,550	16.93	11,300	12.01	11,600	
10/15/2003 21:30		2,870	710.30	418.89	4,400	3.64	1,550	16.90	11,200	12.02	11,600	
10/15/2003 21:45		2,800			4,400	3.64	1,550	16.88	11,200	12.04	11,700	
10/15/2003 22:00	1585.93	2,720	710.25	418.92	4,400	3.63	1,540	16.87	11,100	12.04	11,700	
10/15/2003 22:15		2,690			4,440	3.63	1,540	16.90	11,200	12.06	11,700	
10/15/2003 22:30		2,620	710.24	418.94	4,400	3.62	1,530	16.89	11,200	12.07	11,700	
10/15/2003 22:45		2,540			4,380	3.62	1,530	16.87	11,100	12.09	11,700	
10/15/2003 23:00	1585.95	2,450	710.19	418.97	4,400	3.62	1,530	16.90	11,200	12.08	11,700	
10/15/2003 23:15		2,380			4,440	3.62	1,530	16.86	11,100	12.11	11,800	
10/15/2003 23:30		2,310	710.15	418.99	4,400	3.62	1,530	16.86	11,100	12.11	11,800	
10/15/2003 23:45		2,240			4,380	3.62	1,530	16.88	11,200	12.11	11,800	
10/16/2003 0:00	1585.96	2,230	710.13	419.01	4,400	3.62	1,620	16.89	11,200	12.11	11,800	
10/16/2003 0:15		2,220			4,400	3.63	1,630	16.89	11,200	12.13	11,800	
10/16/2003 0:30		2,220	710.10	419.03	4,440	3.63	1,630	16.90	11,200	12.13	11,800	
10/16/2003 0:45		2,210			4,400	3.64	1,640	16.93	11,300	12.13	11,800	
10/16/2003 1:00	1585.98	2,220	710.08	419.05	4,440	3.64	1,640	16.91	11,200	12.13	11,800	
10/16/2003 1:15		2,220			4,440	3.64	1,640	16.91	11,200	12.14	11,900	
10/16/2003 1:30		2,220	710.02	419.08	4,420	3.65	1,650	16.89	11,200	12.14	11,900	
10/16/2003 1:45		2,220			4,440	3.66	1,670	16.92	11,300	12.14	11,900	
10/16/2003 2:00	1585.96	2,210	710.03	419.10	4,440	3.66	1,670	16.90	11,200	12.16	11,900	
10/16/2003 2:15		2,210			4,440	3.66	1,670	16.93	11,300	12.16	11,900	
10/16/2003 2:30		2,210	709.96	419.13	4,440	3.66	1,670	16.93	11,300	12.16	11,900	
10/16/2003 2:45		2,210			4,440	3.67	1,680	16.92	11,300	12.16	11,900	
10/16/2003 3:00	1585.95	2,210	709.97	419.16	4,440	3.68	1,690	16.89	11,200	12.17	11,900	
10/16/2003 3:15		2,220			4,440	3.69	1,719	16.90	11,200	12.19	11,900	
10/16/2003 3:30		2,220	709.92	419.19	4,400	3.70	1,729	16.91	11,200	12.18	11,900	

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	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/16/2003 3:45		2,220			4,440	3.70	1,729	16.89	11,200	12.17	11,900	
10/16/2003 4:00	1585.95	2,220	709.93	419.21	4,420	3.71	1,750	16.90	11,200	12.19	11,900	
10/16/2003 4:15		2,220			4,440	3.72	1,760	16.89	11,200	12.17	11,900	
10/16/2003 4:30		2,220	709.89	419.24	4,440	3.72	1,760	16.87	11,100	12.19	11,900	
10/16/2003 4:45		2,220			4,440	3.74	1,790	16.83	11,000	12.18	11,900	
10/16/2003 5:00	1585.97	2,240	709.88	419.27	4,440	3.74	1,790	16.89	11,200	12.18	11,900	
10/16/2003 5:15		2,270			4,400	3.75	1,800	16.87	11,100	12.19	11,900	
10/16/2003 5:30		2,590	709.85	419.30	4,440	3.76	1,810	16.87	11,100	12.19	11,900	
10/16/2003 5:45		3,020			4,470	3.78	1,840	16.84	11,000	12.19	11,900	
10/16/2003 6:00	1585.99	3,290	709.84	419.34	4,400	3.78	1,840	16.84	11,000	12.18	11,900	
10/16/2003 6:15		3,410			4,400	3.80	1,870	16.83	11,000	12.19	11,900	
10/16/2003 6:30		3,439	709.82	419.37	4,420	3.81	1,880	16.83	11,000	12.20	12,000	
10/16/2003 6:45		3,469			4,440	3.82	1,890	16.83	11,000	12.19	11,900	
10/16/2003 7:00	1586.01	3,439	709.81	419.41	4,400	3.84	1,920	16.80	10,900	12.18	11,900	
10/16/2003 7:15		3,469			4,440	3.86	1,950	16.79	10,900	12.21	12,000	
10/16/2003 7:30		3,469	709.80	419.44	4,440	3.86	1,950	16.76	10,800	12.23	12,000	
10/16/2003 7:45		3,449			4,440	3.88	1,980	16.76	10,800	12.23	12,000	
10/16/2003 8:00	1586.00	3,449	709.79	419.48	4,400	3.90	2,000	16.74	10,700	12.23	12,000	
10/16/2003 8:15		3,439			4,400	3.92	2,030	16.79	10,900	12.23	12,000	
10/16/2003 8:30		3,469	709.78	419.52	4,440	3.94	2,060	16.77	10,800	12.24	12,100	
10/16/2003 8:45		3,469			4,440	3.96	2,090	16.80	10,900	12.26	12,100	
10/16/2003 9:00	1586.00	3,469	709.77	419.57	4,400	3.98	2,120	16.84	11,000	12.25	12,100	
10/16/2003 9:15		3,469			4,420	4.01	2,160	16.81	10,900	12.28	12,100	
10/16/2003 9:30		3,469	709.77	419.60	4,420	4.03	2,190	16.82	11,000	12.27	12,100	
10/16/2003 9:45		3,479			4,440	4.06	2,240	16.89	11,200	12.28	12,100	
10/16/2003 10:00	1586.03	3,500	709.76	419.71	4,440	4.10	2,300	16.84	11,000	12.30	12,200	
10/16/2003 10:15		3,479			4,400	4.12	2,330	16.89	11,200	12.31	12,200	
10/16/2003 10:30		3,500	709.80	419.77	4,440	4.16	2,390	16.90	11,200	12.34	12,300	
10/16/2003 10:45		3,500			4,420	4.21	2,470	16.92	11,300	12.38	12,300	
10/16/2003 11:00	1585.97	3,510	709.79	419.82	4,440	4.26	2,550	16.95	11,400	12.38	12,300	
10/16/2003 11:15		3,510			4,400	4.32	2,650	16.95	11,400	12.40	12,400	
10/16/2003 11:30		3,550	709.84	419.84	4,440	4.40	2,780	17.02	11,600	12.45	12,500	

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Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/16/2003 11:45		3,560			4,440	4.50	2,960	17.04	11,600	12.45	12,500	
10/16/2003 12:00	1586.00	3,580	709.85	419.88	4,440	4.60	3,150	17.11	11,800	12.49	12,600	
10/16/2003 12:15		3,590			4,440	4.71	3,370	17.15	12,000	12.50	12,600	
10/16/2003 12:30		3,620	709.92	419.97	4,440	4.82	3,590	17.19	12,100	12.53	12,700	
10/16/2003 12:45		3,650			4,470	4.94	3,850	17.25	12,300	12.56	12,700	
10/16/2003 13:00	1586.02	3,690	709.95	420.03	4,440	5.04	4,069	17.37	12,700	12.60	12,800	
10/16/2003 13:15		3,720			4,450	5.14	4,310	17.48	13,000	12.62	12,800	
10/16/2003 13:30		3,770	710.04	420.11	4,440	5.25	4,580	17.59	13,300	12.64	12,900	
10/16/2003 13:45		3,810			4,440	5.38	4,900	17.71	13,700	12.66	12,900	
10/16/2003 14:00	1585.99	3,860		420.19	4,440	5.51	5,250	17.80	14,000	12.67	13,000	Corps speaks to Dave Brookings and updated him to NWS ³ forecast for Skagit basin. Corps expected to take control of U/B and Ross as early as today.
10/16/2003 14:15		3,910			4,450	5.68	5,740	17.91	14,399	12.69	13,000	
10/16/2003 14:30		3,980	710.24	420.29	4,440	5.86	6,290	18.00	14,700	12.75	13,100	
10/16/2003 14:45		4,010			4,440		6,949	18.13	15,100	12.78	13,200	
10/16/2003 15:00	1586.01	4,079		420.37	4,440	6.26	7,580	18.24	15,500	12.82	13,300	
10/16/2003 15:15		4,140			4,470		8,340	18.38	16,000	12.81	13,300	
10/16/2003 15:30		4,210		420.49	4,400		9,290	18.58	16,700	12.89	13,400	
10/16/2003 15:45		4,280			4,450		10,200	18.76	17,300	12.92	13,500	
10/16/2003 16:00	1586.06	4,350		420.58	4,440		11,200	18.93	18,000	12.93	13,500	
10/16/2003 16:15		4,420			4,440		12,000	19.15	18,800	12.98	13,600	
10/16/2003 16:30		4,510		420.71	4,400		13,200	19.36	19,600	13.04	13,700	Corps calls PSE for inflow information. From noon to 1800 hrs, inflow increased from 8,200 to 35,000 cfs. ⁴ NWS forecast is much lower and shows peak tomorrow afternoon of only 39,000 cfs. Corps requested PSE to begin spilling 10,000 cfs ASAP to prevent premature filling of U/B. PSE calls back and said they

³ National Weather Service

⁴ **LJK NOTE:** This entry is being made at 1630 hours and is for 1800 hours. Entry must be projection based on **PSE** data. How did **PSE** determine this? Dam level raised from 709.85 to over 710.24 (Note gauge data unavailable since 1425 till midnight.)

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												needed to move fish nets first and will begin to spill at 2000 hrs. Corps requested update from NWS.
10/16/2003 1630												U/B Inflow data obtained fr PSE 1200=8200 1700=28,757 1300=14,958 1800=34774 1400=14,978 1900=35,637 1500=18,237 2000=37,891 1600=22,389 2100=36,676
10/16/2003 16:45		4,600			4,330		14,099	19.62	20,600	13.06	13,800	
10/16/2003 17:00	1586.11	5,120		420.86	4,370	8.04	14,700	19.98	22,000	13.12	13,900	
10/16/2003 17:15		5,800			4,380	8.16	15,300	20.23	23,000	13.16	14,000	
10/16/2003 17:20												PSE requested an e-mail documenting our conversation and agreement on Corps use of U/B dam for flood control for the next few days. E-mail attached.
10/16/2003 17:21												E-Mail Summary Thanks for talking to me yesterday. Since our conversation, forecast for high flows has increased greatly. I realize we are outside f/c period covered by agmt. with PSE . When we spoke, U/B was at 711 feet. Allowable elevation for 15 Oct is 722 feet. I greatly appreciate your willingness to allow Corps to utilize this space for f/c. Our commitment to PSE is to leave U/B as full as possible at the end of this operation. As of a few hours, ago U/B began to fill. As we discussed this afternoon, I will phone the PSE dispatcher and request that U/B begin to "pass inflow" or adjust the outflow to hold the lake elevation constant until needed for f/c.
10/16/2003 17:30		6,320		420.97	4,400	8.28	15,900		24,700	13.20	14,099	
10/16/2003 17:45		7,120			4,400	8.38	16,400	20.96	26,100	13.23	14,099	
10/16/2003 18:00	1586.14	7,850		421.07	4,400	8.46	16,800		28,000	13.26	14,199	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/16/2003 18:15		8,380			4,420	8.52	17,100	21.76	29,700	13.32	14,299	
10/16/2003 18:30		8,700		421.15	4,400	8.59	17,400		31,800	13.38	14,499	
10/16/2003 18:45		9,010			4,400	8.66	17,800		33,800	13.42	14,599	
10/16/2003 19:00	1586.19	9,700		421.24	4,380	8.72	18,100	22.87	34,900	13.48	14,700	
10/16/2003 19:15		10,600			4,400	8.76	18,300		36,900	13.54	14,800	
10/16/2003 19:30		11,300		421.29	4,400	8.80	18,500	23.55	38,200	13.61	15,000	
10/16/2003 19:45		11,600			4,400	8.82	18,600	23.87	39,800	13.68	15,100	
10/16/2003 20:00	1586.30	11,900		421.36	4,400	8.84	18,700		42,000	13.77	15,300	
10/16/2003 20:15		12,000			4,440	8.85	18,700	24.43	42,600	13.87	15,500	
10/16/2003 20:30		12,100		421.45	4,380	8.86	18,800	24.83	44,700		15,800	
10/16/2003 20:45		12,100			4,400	8.86	18,800	24.91	45,100		16,000	
10/16/2003 21:00	1586.37	12,100		421.54	4,440	8.86	18,800	25.09	46,000	14.17	16,200	
10/16/2003 21:15		12,100			4,400	8.86	18,800	25.32	47,200		16,500	
10/16/2003 21:30		12,100		421.63	4,380	8.84	18,700	25.44	47,800		16,800	
10/16/2003 21:40												PSE advises they will open gates at L/B to hold pool elevation constant or don't fill anymore than 0.3 to 0.4 feet per hour. "Don't draft Lake Shannon." PSE will call back with update.
10/16/2003 21:45		11,900			4,370	8.84	18,700	25.74	49,400		17,100	
10/16/2003 22:00	1586.47	11,500		421.71	4,400	8.82	18,600	25.76	49,500		17,400	
10/16/2003 22:15		11,300			4,400	8.78	18,400	26.06	51,100		17,800	
10/16/2003 22:30		11,100		421.81	4,400	8.76	18,300	26.20	51,900		18,300	U/B 714.3. Qin=37,000 Qout=2,530 Corps instructs PSE to pass 10,000 cfs fm U/B ASAP. PSE says fishnets out of way and ready to ramp-up to 10,000 cfs now.
10/16/2003 22:45		11,000			4,370	8.72	18,100	26.44	53,200		18,800	
10/16/2003 22:50												Corps talks to PSE about plan for Baker Project. Current plan is to release 10,000 cfs from U/B and to pass inflow to L/B i.e. pass outflow from U/B AND local inflow to L/B to Skagit. Corps may ramp-up discharge from U/B if Skagit appears to be in recession.
10/16/2003 23:00	1586.54	11,000		421.91	4,400	8.68	17,900	26.58	53,900		19,300	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/16/2003 23:15		11,000			4,400	8.64	17,700	26.55	53,800		20,000	
10/16/2003 23:20												Corps calls PSE to get data for 2300. U/B Qin 35,698 Qout 4,450 Elev 715.03 ⁵ L/B Qin 8,788 Qout 4,325 Elev 422.12 ⁶ Flow at Concrete 55,960 cfs
10/16/2003 23:30		11,100		422.18	4,400	8.58	17,400	26.89	55,700		20,800	
10/16/2003 23:45		11,200			4,400	8.54	17,200	26.96	56,000		21,600	
10/17/2003 0:00	1586.66	11,600	715.34	422.46	4,380	8.48	16,900	26.98	56,200	16.75	22,500	
10/17/2003 0:15		11,900			4,400	8.42	16,600	27.26	57,699		23,400	Corps calls SCL and takes control of Ross for f/c due to a natural flow forecast at Concrete in excess of 90,000 cfs. Instructs SCL to release minimum flows of 100 cfs from Ross until further notice and not to draft either Diablo or Gorge.
10/17/2003 0:30		12,000		422.73	4,400	8.38	16,400	27.35	58,199		24,300	
10/17/2003 0:45		12,200			4,400	8.33	16,100	27.56	59,400		25,200	
10/17/2003 0:50												U/B Qin 38,300 Qout 10,150 Elev 715.65 L/B Qin 17,800 Qout 4,300 Elev 422.85 Flow at Concrete 60,100. Corps instructs PSE to ramp-up Qout fr U/B to 20,000 cfs immediately. Likely further ramp-up over next few hours.
10/17/2003 1:00	1586.86	12,200		422.99	4,400	8.29	15,900	27.44	58,800		26,100	

⁵ This means U/B had risen about 5 feet in about 9 hours. (See 10/16/2003 1430 at 710.24)

⁶ L/B had risen about 2 feet in 9 hours. (See 10/16/2003 1430 at 420.29)

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/17/2003 1:15		12,300			4,400	8.26	15,800	27.68	60,100		27,100	
10/17/2003 1:20												Skagit County Chal Martin P/W calls Corps for update. Skagit EOC is currently being staffed around the clock. Phone # for EOC is 428-3250.
10/17/2003 1:30		12,400			4,440	8.22	15,600	27.75	60,500		28,000	
10/17/2003 1:45		12,400			4,330	8.20	15,500	27.88	61,300		28,999	
10/17/2003 2:00	1586.96	12,500			4,300	8.17	15,400	27.86	61,200		29,800	
10/17/2003 2:15		12,500			4,370	8.16	15,300	27.90	61,400		30,700	
10/17/2003 2:30		12,500			4,370	8.14	15,200	28.11	62,600		31,500	NOTE: Concrete at flood stage.
10/17/2003 2:45		12,500			4,380	8.13	15,200	28.10	62,600		32,400	
10/17/2003 3:00	1587.03	12,500			4,380	8.12	15,100	28.21	63,200		33,200	
10/17/2003 3:15		12,500			4,400	8.13	15,200	28.29	63,700		33,900	
10/17/2003 3:30		12,500			4,370	8.15	15,300	28.36	64,100		34,700	
10/17/2003 3:45		12,500			4,370	8.18	15,400	28.43	64,500		35,500	
10/17/2003 4:00	1587.21	12,500			4,350	8.22	15,600	28.38	64,200		36,300	
10/17/2003 4:15		12,500			4,370	8.26	15,800	28.43	64,500		37,000	
10/17/2003 4:30		12,500			4,370	8.30	16,000	28.53	65,100		37,700	U/B elev. 716.65. Qin=34,000 cfs Qout=20,100. Corps advises PSE they might want to consider opening spill gates at L/B to preserve storage space since current forecast is for heavy rain in Skagit basin all day. Corps didn't want to prematurely fill Baker projects. PSE says they will open spill gates at L/B.
10/17/2003 4:45		12,500			4,370	8.36	16,300	28.50	64,900		38,300	
10/17/2003 5:00	1587.29	12,800	716.88		4,370	8.44	16,700	28.65	65,800		39,100	
10/17/2003 0510												Corps calls PSE for 0500 data: U/B; Qin 31,975; Qout 20,215; Elev 716.84 L/B; Qin 25,418; Qout 4,394; Elev. 426.44 Concrete flow 67,000 cfs
10/17/2003 5:15		13,100			4,330	8.54	17,200	28.78	66,600		39,600	
10/17/2003 0520												Chal Martin calls Corp. Wanted to know what the plan was for the Skagit. Corps tells him lots

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												of flood control space behind Ross and holding outflow to 100 cfs. Corps trying to preserve space at U/B so putting 20,000 cfs out of U/B. At L/B, asked PSE to open f/c gates to help preserve space. Right now L/B putting out 4,400 cfs, will soon be more because water will be spilling. Martin wanted to know how much Corps expected. Corps trying to keep Concrete from going over 90,000 cfs so Corps guessed they wouldn't have more than 10,000 cfs coming out of L/B before they have to cut back. Promised to call Skagit County if plan changes.
10/17/2003 5:30		13,300	716.97		4,400	8.66	17,800	28.73	66,300		40,200	
10/17/2003 5:45		13,500			5,070	8.78	18,400	28.71	66,200		40,900	
10/17/2003 6:00	1587.43	13,600	717.05		5,430	8.88	18,900	29.02	68,100		41,500	
10/17/2003 6:15		13,700			5,610	8.98	19,400	29.04	68,200		42,100	
10/17/2003 6:30		13,800	717.11		5,709	9.06	19,900	29.08	68,400		42,700	
10/17/2003 6:45		13,900			5,840	9.14	20,300	29.14	68,800		43,300	
10/17/2003 0650												SCL called Corps to see if it was okay to have 2 units "spinning" (no load) in case there is a transmission disruption elsewhere. Corps replies NO, looking at big event on Skagit and they need to hold back all the water they can.
10/17/2003 7:00	1587.59	14,000	717.20		6,110	9.22	20,800	29.19	69,100		43,800	Corps calls Chal Martin and advised they were looking bigger event now than they thought at about 5 a.m. this morning so expect Concrete to go above 90,000 cfs. Will call when they have more info.
10/17/2003 7:15		14,000			6,380	9.30	21,200	29.33	69,900		44,400	
10/17/2003 7:30		14,099	717.26		6,570	9.37	21,600	29.45	70,700		44,900	
10/17/2003 7:45		14,099			6,770	9.44	22,000	29.77	72,700		45,400	
10/17/2003 8:00	1587.78	14,099	717.32		6,969	9.52	22,500	29.65	71,900		45,900	
10/17/2003 8:15		14,099			7,180	9.61	23,000	29.92	73,600		46,400	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/17/2003 8:30		14,199	717.40		7,420	9.70	23,500	29.91	73,500	23.84	46,800	
10/17/2003 8:45		14,199			7,630	9.78	24,000	30.14	75,000		47,200	
10/17/2003 9:00	1587.93	14,199	717.48		7,760	9.86	24,400	30.34	76,300		47,700	
10/17/2003 9:15		14,199			7,970	9.94	24,900	30.44	76,900	24.12	48,000	
10/17/2003 9:30		14,199			7,970	10.02	25,400	30.31	76,100		48,500	
10/17/2003 9:45		14,299			8,510	10.10	25,900	30.60	77,900	24.32	48,900	
10/17/2003 10:00	1588.11	14,299	717.64		8,680	10.16	26,300	30.67	78,400	24.38	49,200	Corps calls PSE for 1000 data: U/B: Qin 29,712; Qout 20,064; Elev 717.60 L/B: Qin 26,004; Qout 8,004; Elev 430.26 11 Gates open at Lower Baker.
10/17/2003 10:15		14,299			8,880	10.23	26,700	30.78	79,100		49,600	Corps talks to SCL about drafting Diablo. SCL assures Corps that Diablo would be stabilized in the next hour. ⁷
10/17/2003 10:30		14,299	717.74		8,880	10.30	27,100	30.97	80,300		50,100	
10/17/2003 10:45		14,399			9,440	10.38	27,600	31.01	80,600	24.67	50,500	
10/17/2003 11:00	1588.24	14,399	717.80		9,710	10.46	28,100	31.19	81,700		50,900	Corps speaks to Gene Galloway of PSE re planned operations for U/B and L/B. After peak has passed Concrete, the Corps will most likely request PSE to increase U/B discharge to 20,000 cfs in order to prevent overfilling. Inflows are forecast to be high enough to raise U/B to 725 feet. Increase in forecast could elevate this even further. Corps suggest PSE might want to open all of their slide gates on L/B in order to pass as much flow as possible. The spillway capacity of L/B with a full pool is only 41,000 cfs. If inflow to L/B is greater than 41,000 cfs L/B would overtop. L/B is stable up to the PMF with 4 feet of water over the top of the dam, according to the engineering study conducted by PSE for FERC. However, there would be significant damages to equipment on

⁷ Need to determine how “unstabilized” Diablo really was.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												the top of the dam. Discharge from U/B could be increased beyond 20,000 cfs assuming that L/B has a sufficient number of slide gates removed and is ready to pass the flow.
10/17/2003 11:15		14,399			9,960	10.54	28,699	31.19	81,700		51,500	
10/17/2003 11:30		14,299			10,200	10.62	29,199	31.16	81,500	24.98	51,900	Corps speaks to River Forecast Center numerous times this morning to refine the inflow forecasts for U/B & Ross and to communicate planned operations. At 11 a.m. RFC released this updated forecast to the public. ⁸
10/17/2003 11:45		14,299			10,400	10.70	29,700	31.40	83,100	25.06	52,300	Corps request PSE to reduce U/B discharge to 5,000 cfs until further notice. Discussed potential future operations. PSE asked about L/B operations. Corps would not be telling PSE how to operate L/B except to be sure to not draft L/B.
10/17/2003 12:00	1588.43	14,299		431.32	10,300	10.78	30,200	31.57	84,200	25.15	52,700	
10/17/2003 12:15		14,299			10,400	10.84	30,600	31.40	83,100	25.24	53,100	
10/17/2003 12:30		14,299		431.38	10,400	10.90	31,000	31.60	84,400	25.33	53,600	
10/17/2003 12:45		14,299			10,300	10.96	31,400	31.84	86,000	25.41	53,900	
10/17/2003 13:00	1588.54	14,199		431.38	10,400	11.01	31,800	31.87	86,200	25.50	54,400	
10/17/2003 13:15		13,800			10,400	11.06	32,100	31.96	86,800	25.59	54,800	
10/17/2003 13:30		13,400		431.37	10,400	11.10	32,400		89,900	25.67	55,200	
10/17/2003 13:45		13,400			10,400	11.14	32,600	32.04	87,400	25.76	55,600	
10/17/2003 14:00	1588.70	13,400		431.31	10,400	11.18	32,900	32.22	88,600	25.85	56,100	
10/17/2003 14:15		13,400			10,400	11.20	33,000	32.35	89,400	25.94	56,499	
10/17/2003 14:30		13,400		431.29	10,400	11.20	33,000	32.16	88,200	26.02	56,899	
10/17/2003 14:45		13,500			10,300	11.20	33,000	32.33	89,300	26.11	57,399	
10/17/2003 15:00	1588.89	13,500		431.30	10,400	11.19	33,000	32.46	90,200	26.20	57,799	Upper Baker
												Time Elev Qin Qout

⁸ No weather forecast was attached to the log operations notes.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												1100 717.77 32,658 23,034 1200 718.08 29,813 N/A 1300 718.56 31,903 4,551 1400 719.08 34,207 4,339 1500 719.02 35,404 4,228 Lower Baker 1100 431.02 28,033 8,929 1200 1300 431.37 10,987 5,755 1400 431.27 7,393 9,939 1500 431.30 10,672 9,904
10/17/2003 15:15		13,500			10,400	11.18	32,900	32.55	90,800	26.29	58,299	
10/17/2003 15:30		13,500		431.35	10,500	11.16	32,800	32.54	90,700	26.37	58,700	
10/17/2003 1535												Corps contacts SCL about future operations at Ross. Forecasts suggest Corps would be returning control of Ross to SCL by midnight.
10/17/2003 15:45		13,500			10,400	11.13	32,600	32.70	91,800	26.46	59,100	
10/17/2003 16:00	1589.04	13,400		431.28	10,300	11.08	32,200	32.54	90,700	26.55	59,600	PSE advises Corps there is a barge at the west side of L/B so PSE does not plan to use the 3 gates near the barge. Corps estimates that this would limit their capacity to 36,000 cfs at L/B.
10/17/2003 16:15		13,400			10,400	11.04	32,000	32.82	92,700	26.63	60,000	
10/17/2003 16:30		13,400		431.23	10,300	11.02	31,800	32.75	92,200	26.72	60,500	
10/17/2003 16:45		13,300			10,400	10.98	31,600	32.88	93,100	26.81	60,900	
10/17/2003 17:00	1589.16	13,200		431.19	10,200	10.92	31,100	32.78	92,400	26.90	61,400	
10/17/2003 17:15		13,100			10,200	10.86	30,700	32.85	92,900	26.98	61,800	
10/17/2003 17:30		13,100		431.16	10,200	10.79	30,300	32.93	93,400	27.07	62,300	
10/17/2003 17:45		13,000			10,200	10.70	29,700	33.12	94,700	27.14	62,700	
10/17/2003 18:00	1589.35	12,600	720.98	431.12	10,100	10.62	29,199	32.83	92,700		63,200	
10/17/2003 18:15		12,200			10,200	10.52	28,499	32.98	93,800	27.31	63,600	
10/17/2003 18:30		11,800		431.07	10,100	10.42	27,900	32.91	93,300	27.35	63,800	
10/17/2003 18:45		11,600			10,000	10.32	27,300	32.84	92,800	27.40	64,100	
10/17/2003 19:00	1589.50	11,400		431.05	10,100	10.22	26,600	32.89	93,100	27.42	64,200	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/17/2003 19:15		11,300			9,960	10.10	25,900	32.68	91,700	27.51	64,700	
10/17/2003 19:30		11,200		430.97	9,920	10.00	25,300	33.04	94,200	27.57	65,000	
10/17/2003 19:45		11,100			9,870	9.88	24,600	33.04	94,200	27.64	65,400	LJK NOTE: Concrete crest.
10/17/2003 20:00	1589.63	11,000		430.95	9,870	9.78	24,000	32.69	91,800	27.67	65,600	
10/17/2003 20:15		11,000			9,780	9.66	23,300	32.60	91,100	27.76	66,100	
10/17/2003 20:30		10,900	721.72	430.91	9,760	9.54	22,600	32.34	89,400	27.81	66,300	
10/17/2003 20:45		10,900			9,640	9.42	21,900	32.44	90,100	27.85	66,600	
10/17/2003 21:00	1589.78	10,800		430.81	9,690	9.32	21,300	32.18	88,300	27.86	66,600	
10/17/2003 21:15		10,800			9,550	9.20	20,700	32.21	88,500	27.96	67,200	
10/17/2003 21:30		10,800		430.79	9,550	9.10	20,100	32.12	87,900	27.98	67,300	
10/17/2003 22:35												Ross 1589.85. Qin=20,300 Qout=100 cfs Concrete 85,000. Corps officially gives control back to SCL.
10/17/2003 21:45		10,800			9,440	8.98	19,500	31.84	86,000	28.04	67,600	LJK NOTE: Mt. Vernon hits flood stage.
10/17/2003 22:00	1589.92	10,800	721.99	430.75	9,440	8.89	19,000	31.73	85,300	28.09	67,900	
10/17/2003 22:10												U/B 721.96. Qin 14,500 cfs Qout 4,560 cfs Concrete 84,820 cfs. Corps advises PSE to target total discharge from U/B of 10,000 cfs at 2300 and 15,000 at 2400. Goal is to ramp-up U/B discharge to at least match inflow not that Skagit at Concrete is in recession.
10/17/2003 22:15		10,800			9,440	8.80	18,500	31.56	84,200	28.12	68,100	
10/17/2003 22:30		10,800		430.69	9,320	8.70	18,000		81,200	28.19	68,500	
10/17/2003 22:45		10,800			9,230	8.63	17,700	31.03	80,700	28.18	68,400	
10/17/2003 23:00	1590.08	10,700	722.11	430.63	9,230	8.56	17,300	30.79	79,100	28.26	68,900	
10/17/2003 23:15		10,700			9,150	8.48	16,900	30.66	78,300	28.29	69,000	
10/17/2003 23:30		10,600	722.14	430.81	9,320	8.40	16,500	30.31	76,100	28.33	69,300	
10/17/2003 23:45		10,600			9,320	8.34	16,200	30.28	75,900	28.38	69,600	
10/18/2003 0:00	1590.24	10,600	722.02	430.95	9,460	8.27	15,900	29.99	74,000	28.40	69,700	
10/18/2003 0:15		10,500			9,510	8.20	15,500	29.78	72,700	28.45	70,000	
10/18/2003 0:30		10,500	722.04	431.23	9,780	8.14	15,300	29.53	71,200	28.49	70,200	
10/18/2003 0:45		10,500			9,890	8.08	15,000	29.30	69,800	28.52	70,400	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/18/2003 1:00	1590.31	10,400		431.51	10,100	8.02	14,700	28.92	67,500	28.57	70,700	
10/18/2003 1:15		9,960			10,200	7.97	14,499	28.98	67,800	28.63	71,000	
10/18/2003 1:30		9,610	721.89	431.73	10,400	7.92	14,199	28.82	66,900	28.68	71,300	
10/18/2003 1:45		9,350			10,500	7.87	14,000	28.61	65,600	28.70	71,400	
10/18/2003 2:00	1590.41	9,150		431.84	10,500	7.82	13,800	28.55	65,200	28.73	71,600	
10/18/2003 2:15		8,950			10,600	7.78	13,600	28.27	63,600	28.75	71,700	
10/18/2003 2:30		8,590	721.76	431.94	10,700	7.72	13,300	28.12	62,700	28.77	71,800	
10/18/2003 2:45		8,159			10,800	7.67	13,100	27.76	60,600	28.82	72,100	
10/18/2003 3:00	1590.52	7,850		432.05	10,900	7.62	12,900	27.73	60,400	28.79	71,900	
10/18/2003 3:15		7,570			10,900	7.58	12,700	27.57	59,500	28.88	72,500	U/B 721.46 Qin=10,240 Qout=14,944 Concrete 61,360. U/B dropped below flood control pool so told PSE that Corps returned control of U/B to PSE .
10/18/2003 3:30		7,370	721.63	432.17	10,900	7.53	12,500	27.46	58,900	28.90	72,600	
10/18/2003 3:45		7,190			11,100	7.48	12,300	27.39	58,500	28.87	72,400	
10/18/2003 4:00	1590.63	7,050	721.58	432.27	11,200	7.43	12,100	27.21	57,499	28.91	72,600	
10/18/2003 4:15		6,969			11,200	7.38	11,900	27.21	57,499	28.95	72,900	
10/18/2003 4:30		6,899	721.52	432.35	11,300	7.34	11,700	27.07	56,699	28.95	72,900	
10/18/2003 4:45		6,830			11,400	7.30	11,500	27.00	56,299	28.97	73,000	
10/18/2003 5:00	1590.74	6,790	721.46	432.44	11,400	7.26	11,400	26.79	55,100	28.96	72,900	
10/18/2003 5:15		6,770			11,500	7.22	11,200	26.70	54,600	28.98	73,100	
10/18/2003 5:30		6,720	721.42	432.51	11,600	7.17	11,000	26.57	53,900	28.98	73,100	
10/18/2003 5:45		6,720			11,600	7.12	10,800	26.40	52,900	29.04	73,400	
10/18/2003 6:00	1590.84	6,680	721.34	432.61	11,700	7.08	10,600	26.40	52,900	29.01	73,200	
10/18/2003 6:15		6,680			11,700	7.05	10,500	26.20	51,900	29.02	73,300	
10/18/2003 6:30		6,650	721.29	432.69	11,800	7.01	10,400	26.21	51,900	29.03	73,400	
10/18/2003 6:45		6,630			11,800	6.98	10,200	26.09	51,300	29.01	73,200	
10/18/2003 7:00	1590.93	6,630	721.22	432.76	11,900	6.94	10,100	25.93	50,400	29.05	73,500	
10/18/2003 7:15		6,630			12,000	6.90	9,930	25.80	49,700	29.05	73,500	
10/18/2003 7:30		6,610	721.15	432.82	12,100	6.86	9,780	25.73	49,300	29.03	73,400	LJK NOTE: Mt. Vernon crests.
10/18/2003 7:45		6,610			12,100	6.84	9,700	25.71	49,200	29.03	73,400	
10/18/2003 8:00	1591.01	6,580	721.12	432.82	12,100	6.81	9,590	25.54	48,300	29.04	73,400	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/18/2003 8:15		6,580			12,100	6.77	9,440	25.34	47,300	29.06	73,500	
10/18/2003 8:30		6,560	721.10	432.83	12,100	6.74	9,320	25.28	47,000	28.99	73,100	
10/18/2003 8:45		6,560			12,100	6.70	9,170	25.20	46,600	28.98	73,100	
10/18/2003 9:00	1591.03	6,540	721.05	432.79	12,000	6.68	9,100	25.06	45,800	28.97	73,000	
10/18/2003 9:15		6,540			12,000	6.64	8,950	24.95	45,300	28.93	72,800	
10/18/2003 9:30		6,540	720.99	432.86	12,200	6.62	8,880	25.01	45,600	28.92	72,700	
10/18/2003 9:45		6,500			12,100	6.60	8,810	24.73	44,100	28.89	72,500	
10/18/2003 10:00	1591.13	6,320	720.90	432.91	12,100	6.57	8,700	24.77	44,300	28.88	72,500	
10/18/2003 10:15		6,140			12,300	6.54	8,630	24.68	43,900	28.84	72,200	
10/18/2003 10:30		5,990	720.83	432.96	13,400	6.52	8,560	24.72	44,100	28.84	72,200	
10/18/2003 10:45		5,890			14,299	6.48	8,410	24.75	44,200	28.78	71,900	
10/18/2003 11:00	1591.19	5,719	720.74	432.97	15,000	6.46	8,340	24.75	44,200	28.76	71,800	
10/18/2003 11:15		5,540			15,800	6.44	8,270	24.93	45,200	28.68	71,300	
10/18/2003 11:30		5,350	720.65	432.99	16,200	6.42	8,200	24.93	45,200	28.65	71,100	
10/18/2003 11:45		5,200			13,000	6.39	8,100	24.88	44,900	28.59	70,800	
10/18/2003 12:00	1591.27	5,040	720.60	433.05	10,900	6.37	8,030	24.68	43,900	28.54	70,500	
10/18/2003 12:15		4,910			8,010	6.34	7,920	24.37	42,300	28.47	70,100	
10/18/2003 12:30		4,740	720.65	432.92	7,720	6.32	7,850		39,400	28.44	69,900	
10/18/2003 12:45		4,580			7,670	6.30	7,780	23.49	37,900		69,300	
10/18/2003 13:00	1591.33	4,440	720.68	432.90	7,630	6.27	7,680	23.37	37,300	28.27	68,900	
10/18/2003 13:15		4,310			6,750	6.25	7,610	23.23	36,600	28.19	68,500	
10/18/2003 1320												U/B 721.6 Qin=14,456 cfs Qout=22,712 cfs Concrete 74,610 cfs. Realized PSE was discharging 15,000 cfs spill on top of powerhouse capacity of 5,000 cfs. Corps told PSE to ramp down so total Qout was 15,000 cfs. Corps will watch for when pool drops below 721.5 (current flood control pool) and call them back. ⁹
10/18/2003 13:30		4,190	720.69	432.81	6,260	6.22	7,510	23.05	35,700	28.10	68,000	

⁹ This entry makes no sense either from the standpoint of date, time, lake levels or cfs. Concrete had not been at 74,610 cfs since midnight, some 13 hours previous to entry. Entry is particularly perplexing since next entry in log book is for 0315 on the 18th when Corps returned control to PSE.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/18/2003 13:45		4,110			6,220	6.20	7,450	22.81	34,600	28.07	67,800	
10/18/2003 14:00	1591.40	4,010	720.78	432.65	6,220	6.18	7,380	22.79	34,500		67,100	
10/18/2003 14:15		3,940			6,220	6.16	7,310	22.66	33,900	27.86	66,600	
10/18/2003 14:30		3,910	720.79	432.53	6,220	6.13	7,210	22.54	33,300	27.81	66,300	
10/18/2003 14:45		3,860			6,260	6.10	7,110	22.53	33,300	27.73	65,900	
10/18/2003 15:00	1591.45	3,850	720.84	432.41	6,220	6.09	7,080	22.44	32,800		65,300	
10/18/2003 15:15		3,810			6,220	6.06	6,979	22.42	32,700		64,600	
10/18/2003 15:30		3,800	720.92	432.33	6,180	6.04	6,919	22.36	32,500	27.43	64,200	
10/18/2003 15:45		3,780			6,180	6.02	6,850	22.36	32,500		63,700	
10/18/2003 16:00	1591.50	3,770	720.93	432.25	6,180	6.00	6,790	22.17	31,600		63,100	
10/18/2003 16:15		3,750			6,150	5.98	6,730	22.14	31,400	27.11	62,500	
10/18/2003 16:30		3,750	720.98	432.15	6,150	5.97	6,690	22.02	30,900		62,000	
10/18/2003 16:45		3,750			6,150	5.94	6,600	22.05	31,000		61,500	
10/18/2003 17:00	1591.57	3,730	721.01	432.04	6,130	5.93	6,570	21.88	30,200		60,700	
10/18/2003 17:15		3,730			6,150	5.91	6,510	21.79	29,800	26.68	60,300	
10/18/2003 17:30		3,720	721.05	431.93	6,150	5.90	6,470	21.80	29,900		59,500	
10/18/2003 17:45		3,720			6,150	5.88	6,410	21.78	29,800		58,900	
10/18/2003 18:00	1591.60	3,720	721.10	431.81	6,110	5.86	6,350	21.67	29,300		58,199	
10/18/2003 18:15		3,720			6,150	5.84	6,290	21.64	29,099		57,499	
10/18/2003 18:30		3,720	721.12	431.72	5,990	5.82	6,230	21.62	29,099		56,699	
10/18/2003 18:45		3,720			5,950	5.81	6,200	21.46	28,299		56,000	
10/18/2003 19:00	1591.64	3,720	721.18	431.65	5,970	5.80	6,160	21.37	27,900		55,100	
10/18/2003 19:15		3,700			5,990	5.78	6,100	21.35	27,800		54,300	
10/18/2003 19:30		3,700	721.21	431.55	5,950	5.76	6,040	21.33	27,700		53,500	
10/18/2003 19:45		3,690			5,950	5.75	6,010	21.19	27,100		52,800	
10/18/2003 20:00	1591.73	3,690	721.24	431.45	5,950	5.74	5,980	21.16	27,000		52,000	
10/18/2003 20:15		3,690			5,950	5.72	5,920	21.16	27,000		51,300	
10/18/2003 20:30		3,690	721.31	431.35	5,930	5.70	5,860	21.17	27,000		50,600	
10/18/2003 20:45		3,670			5,880	5.69	5,830	21.07	26,600		49,700	
10/18/2003 21:00	1591.76	3,670	721.32	431.25	5,900	5.68	5,800	21.13	26,900		48,800	
10/18/2003 21:15		3,670			5,920	5.66	5,740	21.00	26,300		48,200	
10/18/2003 21:30		3,670	721.36	431.16	5,880	5.65	5,709	20.99	26,300		47,500	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/18/2003 21:45		3,650			5,840	5.64	5,679	20.98	26,200		46,800	
10/18/2003 22:00	1591.79	3,650	721.40	431.05	6,730	5.62	5,629	20.88	25,800		46,000	
10/18/2003 22:15		3,650			8,100	5.61	5,600	20.89	25,800		45,300	
10/18/2003 22:30		3,650	721.41	430.91	8,970	5.60	5,570	21.17	27,000		44,600	
10/18/2003 22:45		3,650			9,820	5.58	5,510	21.32	27,700		43,900	
10/18/2003 23:00	1591.85	3,640	721.48	430.72	9,710	5.58	5,510	21.54	28,699		43,300	
10/18/2003 23:15		3,640			9,620	5.56	5,450	21.62	29,099		42,700	
10/18/2003 23:30		3,640	721.39	430.56	9,510	5.54	5,390	21.54	28,699		42,000	
10/18/2003 23:45		3,640			9,730	5.54	5,390	21.55	28,699		41,300	
10/19/2003 0:00	1591.89	3,620	721.34	430.71	9,600	5.52	5,340	21.52	28,599	22.39	40,800	
10/19/2003 0:15		3,620			9,760	5.52	5,340	21.44	28,199		40,200	
10/19/2003 0:30		3,620	721.31	430.81	9,780	5.50	5,280	21.47	28,399		39,700	
10/19/2003 0:45		3,620			9,870	5.50	5,280	21.61	28,999		39,000	
10/19/2003 1:00	1591.90	3,620		430.89	9,960	5.48	5,220	21.48	28,399		38,600	
10/19/2003 1:15		3,620			9,960	5.48	5,220	21.49	28,499		38,000	
10/19/2003 1:30		3,620	721.15	430.96	10,100	5.46	5,170	21.44	28,199		37,600	
10/19/2003 1:45		3,620			10,000	5.46	5,170	21.46	28,299		37,000	
10/19/2003 2:00	1591.98	3,610		431.01	10,100	5.44	5,110	21.46	28,299		36,600	
10/19/2003 2:15		3,610			10,100	5.44	5,110	21.46	28,299		36,200	
10/19/2003 2:30		3,610	720.98	431.07	10,200	5.42	5,060	21.47	28,399		35,700	
10/19/2003 2:45		3,610			10,100	5.42	5,060	21.46	28,299		35,300	
10/19/2003 3:00	1591.99	3,590	720.96	431.07	10,200	5.41	5,030	21.42	28,199		35,000	
10/19/2003 3:15		3,590			10,200	5.40	5,000	21.35	27,800	20.73	34,600	
10/19/2003 3:30		3,590	720.89	431.04	10,200	5.40	5,000	21.46	28,299		34,300	
10/19/2003 3:45		3,590			10,100	5.38	4,950	21.34	27,800	20.56	34,000	
10/19/2003 4:00	1592.00	3,590	720.89	431.01	10,100	5.38	4,950	21.30	27,600		33,700	
10/19/2003 4:15		3,590			10,100	5.37	4,920	21.42	28,199	20.38	33,400	
10/19/2003 4:30		3,590	720.83	431.01	10,100	5.36	4,900	21.28	27,500	20.32	33,200	
10/19/2003 4:45		3,590			10,100	5.36	4,900	21.27	27,500	20.26	33,000	
10/19/2003 5:00	1592.06	3,590	720.82	431.03	10,100	5.34	4,850	21.27	27,500	20.24	33,000	
10/19/2003 5:15		3,590			10,100	5.34	4,850	21.29	27,600	20.18	32,800	
10/19/2003 5:30		3,590	720.78	431.03	10,100	5.34	4,850	21.22	27,300	20.13	32,600	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/19/2003 5:45		3,590			10,100	5.32	4,800	21.26	27,400	20.09	32,500	
10/19/2003 6:00	1592.10	3,590	720.74	431.01	10,100	5.32	4,800	21.17	27,000	20.06	32,400	
10/19/2003 6:15		3,610			10,100	5.31	4,770	21.18	27,100	20.04	32,300	
10/19/2003 6:30		3,610	720.75	431.01	10,100	5.30	4,750	21.23	27,300	19.98	32,100	
10/19/2003 6:45		3,620			10,100	5.30	4,750	21.17	27,000	19.97	32,100	
10/19/2003 7:00	1592.16	3,620	720.72	431.01	10,100	5.30	4,750	21.18	27,100	19.94	32,000	
10/19/2003 7:15		3,610			10,100	5.28	4,700	21.21	27,200	19.91	31,900	
10/19/2003 7:30		3,610	720.72	431.03	10,100	5.28	4,700	21.12	26,800	19.87	31,700	
10/19/2003 7:45		3,610			10,100	5.26	4,650	21.18	27,100	19.84	31,600	
10/19/2003 8:00	1592.20	3,610	720.72	431.03	10,100	5.26	4,650	21.10	26,700	19.80	31,500	
10/19/2003 8:15		3,610			10,200	5.26	4,650	21.13	26,900	19.78	31,400	
10/19/2003 8:30		3,610	720.68	431.03	10,100	5.24	4,600	21.09	26,700	19.75	31,300	
10/19/2003 8:45		3,610			10,100	5.24	4,600	21.06	26,600	19.71	31,200	
10/19/2003 9:00	1592.21	3,610	720.69	431.16	10,300	5.23	4,580	21.11	26,800	19.71	31,200	
10/19/2003 9:15		3,610			10,300	5.22	4,550	21.12	26,800	19.69	31,100	
10/19/2003 9:30		3,590	720.59	431.27	10,500	5.22	4,550	21.07	26,600	19.66	31,000	
10/19/2003 9:45		3,590			10,500	5.22	4,550	21.13	26,900	19.64	31,000	
10/19/2003 10:00	1592.25	3,590	720.61	431.37	10,500	5.22	4,550	21.19	27,100	19.61	30,900	
10/19/2003 10:15		3,610			10,600	5.22	4,550	21.13	26,900	19.58	30,800	
10/19/2003 10:30		3,590	720.53	431.48	10,700	5.22	4,550	21.23	27,300	19.56	30,700	
10/19/2003 10:45		3,590			10,800	5.22	4,550	21.22	27,300	19.54	30,700	
10/19/2003 11:00	1592.31	3,590	720.53	431.59	10,900	5.22	4,550	21.24	27,400	19.51	30,600	
10/19/2003 11:15		3,590			10,900	5.22	4,550	21.22	27,300	19.48	30,500	
10/19/2003 11:30		3,610	720.53	431.69	11,000	5.22	4,550	21.27	27,500	19.48	30,500	
10/19/2003 11:45		3,610			11,100	5.22	4,550	21.41	28,100	19.46	30,400	
10/19/2003 12:00	1592.32	3,620		431.81	11,100	5.22	4,550	21.43	28,199	19.44	30,300	
10/19/2003 12:15		3,620			11,200	5.22	4,550	21.42	28,199	19.43	30,300	
10/19/2003 12:30		3,620	720.43	432.09	11,700	5.23	4,580	21.46	28,299	19.42	30,300	
10/19/2003 12:45		3,620			12,300	5.24	4,600	21.54	28,699	19.42	30,300	
10/19/2003 13:00	1592.36	3,640		432.35	12,700	5.24	4,600	21.77	29,700	19.42	30,300	
10/19/2003 13:15		3,640			13,300	5.25	4,620	21.83	30,000	19.41	30,200	
10/19/2003 13:30		3,650	720.24	432.58	13,500	5.26	4,650	21.92	30,400	19.40	30,200	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/19/2003 13:45		3,650			13,700	5.26	4,650	22.09	31,200	19.40	30,200	
10/19/2003 14:00	1592.38	3,650	720.14	432.79	13,800	5.28	4,700	22.09	31,200	19.42	30,300	
10/19/2003 14:15		3,650			13,900	5.29	4,720	22.32	32,300	19.40	30,200	
10/19/2003 14:30		3,650		433.00	14,099	5.30	4,750	22.28	32,100	19.43	30,300	
10/19/2003 14:45		3,650			14,299	5.30	4,750	22.37	32,500	19.45	30,400	
10/19/2003 15:00	1592.46	3,650	719.93	433.18	14,499	5.32	4,800	22.37	32,500	19.45	30,400	
10/19/2003 15:15		3,650			14,599	5.34	4,850	22.56	33,400	19.48	30,500	
10/19/2003 15:30		3,650		433.37	14,900	5.36	4,900	22.57	33,400	19.50	30,500	
10/19/2003 15:45		3,650			15,000	5.38	4,950	22.66	33,900	19.52	30,600	
10/19/2003 16:00	1592.51	3,650		433.55	15,100	5.41	5,030	22.72	34,200	19.54	30,700	
10/19/2003 16:15		3,650			15,300	5.42	5,060	22.76	34,300	19.55	30,700	
10/19/2003 16:30		3,650		433.71	15,500	5.44	5,110	22.91	35,100	19.59	30,800	
10/19/2003 16:45		3,650			15,500	5.45	5,140	22.94	35,200	19.64	31,000	
10/19/2003 17:00	1592.56	3,670		433.87	15,700	5.46	5,170	23.09	35,900	19.66	31,000	
10/19/2003 17:15		3,670			15,900	5.48	5,220	23.19	36,400	19.68	31,100	
10/19/2003 17:30		3,670	719.35	434.01	16,700	5.50	5,280	23.19	36,400	19.74	31,300	
10/19/2003 17:45		3,670			17,100	5.52	5,340	23.24	36,700	19.76	31,400	
10/19/2003 18:00	1592.61	3,670		434.11	18,300	5.54	5,390	23.24	36,700	19.81	31,500	
10/19/2003 18:15		3,670			19,200	5.55	5,420	23.49	37,900	19.86	31,700	
10/19/2003 18:30		3,670		434.17	20,000	5.57	5,480	23.76	39,300	19.89	31,800	
10/19/2003 18:45		3,690			20,400	5.58	5,510		41,800	19.95	32,000	
10/19/2003 19:00	1592.62	3,670		434.21	20,300	5.60	5,570	24.19	41,400	20.01	32,200	
10/19/2003 19:15		3,670			20,400	5.61	5,600	24.32	42,100	20.05	32,300	
10/19/2003 19:30		3,670		434.26	20,400	5.62	5,629	24.27	41,800	20.09	32,500	
10/19/2003 19:45		3,650			20,400	5.64	5,679	24.23	41,600	20.16	32,700	
10/19/2003 20:00	1592.68	3,650		434.29	20,600	5.64	5,679	24.38	42,400	20.21	32,900	
10/19/2003 20:15		3,650			20,500	5.66	5,740	24.33	42,100	20.29	33,100	
10/19/2003 20:30		3,650		434.33	20,600	5.66	5,740	24.33	42,100	20.32	33,200	
10/19/2003 20:45		3,650			20,700	5.66	5,740	24.48	42,900	20.38	33,400	
10/19/2003 21:00	1592.71	3,640		434.35	20,800	5.66	5,740	24.42	42,600	20.43	33,600	
10/19/2003 21:15		3,640			20,700	5.66	5,740	24.39	42,400	20.48	33,800	
10/19/2003 21:30		3,640		434.37	20,700	5.66	5,740	24.30	42,000	20.55	34,000	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/19/2003 21:45		3,620			20,700	5.66	5,740	24.36	42,300	20.62	34,300	
10/19/2003 22:00	1592.76	3,620		434.39	20,800	5.67	5,770	24.40	42,500	20.67	34,400	
10/19/2003 22:15		3,620			20,900	5.67	5,770	24.27	41,800	20.75	34,700	
10/19/2003 22:30		3,620	718.06	434.41	20,800	5.67	5,770	24.19	41,400	20.79	34,800	
10/19/2003 22:45		3,610			20,900	5.68	5,800	24.58	43,400	20.86	35,100	
10/19/2003 23:00	1592.80	3,610		434.42	20,900	5.68	5,800	24.25	41,700	20.93	35,300	
10/19/2003 23:15		3,610			20,900	5.68	5,800	24.29	41,900	21.00	35,600	
10/19/2003 23:30		3,610		434.43	21,000	5.68	5,800	24.30	42,000	21.07	35,800	
10/19/2003 23:45		3,590			21,000	5.68	5,800	24.36	42,300	21.13	36,100	
10/20/2003 0:00	1592.85	3,590	717.62	434.44	20,900	5.68	5,800	24.36	42,300	21.22	36,400	
10/20/2003 0:15		3,590			21,000	5.68	5,800	24.26	41,800		36,700	
10/20/2003 0:30		3,590		434.44	21,000	5.66	5,740	24.44	42,700	21.37	36,900	
10/20/2003 0:45		3,590			21,000	5.66	5,740	24.44	42,700	21.45	37,200	
10/20/2003 1:00	1592.89	3,590		434.45	21,000	5.64	5,679	24.22	41,600	21.53	37,500	
10/20/2003 1:15		3,590			21,100	5.63	5,659	24.23	41,600	21.61	37,800	
10/20/2003 1:30		3,590		434.45	21,000	5.62	5,629	24.16	41,300	21.66	38,000	
10/20/2003 1:45		3,590			21,000	5.60	5,570	24.16	41,300	21.72	38,200	
10/20/2003 2:00	1592.91	3,590		434.45	21,000	5.58	5,510	24.14	41,200	21.77	38,400	
10/20/2003 2:15		3,590			21,000	5.57	5,480	24.19	41,400	21.86	38,800	
10/20/2003 2:30		3,590		434.45	21,000	5.55	5,420	24.13	41,100	21.88	38,800	
10/20/2003 2:45		3,590			21,000	5.54	5,390	24.04	40,700	21.93	39,000	
10/20/2003 3:00	1592.96	3,590		434.45	21,100	5.52	5,340	24.14	41,200	21.97	39,200	
10/20/2003 3:15		3,590			20,900	5.50	5,280	24.02	40,600	22.01	39,300	
10/20/2003 3:30		3,590		434.45	20,900	5.49	5,250	24.10	41,000	22.07	39,600	
10/20/2003 3:45		3,590			21,000	5.48	5,220	24.10	41,000	22.09	39,600	
10/20/2003 4:00	1593.01	3,590		434.44	21,000	5.46	5,170	24.02	40,600	22.10	39,700	
10/20/2003 4:15		3,590			20,900	5.45	5,140	23.94	40,200	22.12	39,700	
10/20/2003 4:30		3,590		434.43	21,000	5.44	5,110	23.88	39,900	22.18	40,000	
10/20/2003 4:45		3,610			21,000	5.42	5,060	23.88	39,900	22.21	40,100	
10/20/2003 5:00	1593.06	3,610		434.44	20,900	5.42	5,060	24.02	40,600	22.23	40,200	
10/20/2003 5:15		3,610			21,000	5.42	5,060	23.90	40,000	22.23	40,200	
10/20/2003 5:30		3,610	716.14	434.45	20,900	5.41	5,030	23.80	39,500	22.26	40,300	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/20/2003 5:45		3,620			21,000	5.40	5,000	23.93	40,100	22.27	40,300	
10/20/2003 6:00	1593.10	3,620		434.44	20,900	5.40	5,000	23.85	39,700	22.30	40,400	
10/20/2003 6:15		3,640			20,900	5.40	5,000	23.81	39,500	22.30	40,400	
10/20/2003 6:30		3,650	715.93	434.43	21,000	5.39	4,970	23.81	39,500	22.29	40,400	
10/20/2003 6:45		3,700			21,100	5.39	4,970	23.78	39,400	22.33	40,600	
10/20/2003 7:00	1593.15	3,730	715.87	434.43	21,000	5.40	5,000	23.78	39,400	22.34	40,600	
10/20/2003 7:15		3,750			20,900	5.42	5,060	23.81	39,500	22.33	40,600	
10/20/2003 7:30		3,770	715.79	434.43	20,900	5.44	5,110	23.91	40,000	22.36	40,700	
10/20/2003 7:45		3,800			21,000	5.44	5,110	23.80	39,500	22.37	40,700	
10/20/2003 8:00	1593.26	3,850	715.80	434.47	20,900	5.46	5,170	23.82	39,600	22.36	40,700	
10/20/2003 8:15		3,940			21,100	5.46	5,170	23.84	39,700	22.37	40,700	
10/20/2003 8:30		4,040	715.75	434.50	21,100	5.49	5,250	23.85	39,700	22.41	40,900	
10/20/2003 8:45		4,140			21,100	5.52	5,340	23.92	40,100	22.40	40,800	
10/20/2003 9:00	1593.32	4,230	715.81	434.52	21,200	5.57	5,480	23.82	39,600	22.41	40,900	
10/20/2003 9:15		4,310			21,300	5.62	5,629	23.90	40,000	22.40	40,800	Ross 1593.43 Qin=8,100 Qout=100 cfs Corps calls SCL and takes control of Ross. Told SCL to release 5,000 cfs from Ross until further notice.
10/20/2003 9:30		4,380	715.82	434.57	21,500	5.68	5,800	23.90	40,000	22.42	40,900	
10/20/2003 9:45		4,450			21,300	5.72	5,920	24.02	40,600	22.41	40,900	Corps calls PSE who informed Corps that 22 out of the 23 spill gates at L/B were fully open. L/B elev at 0900 was 434.52 Qin=25,600 Qout=24,370 NWRFC forecasting a natural peak flow at Concrete of 180,000 cfs tomorrow and going above 90,000 cfs today at about 1600. Corps will be calling PSE ASAP to take control of U/B for f/c. PSE request e-mail to him re takeover of u/B since we have not entered Nov 1 flood season yet.
10/20/2003 0950												U/B 715.75 Qin=21,100 Qout=20,550 L/B 434.52 Qin=25,660 Qout=24,400 Corps takes control of U/B per agreement. Instructed PSE to release 30,000 cfs from U/B

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												until further notice.
10/20/2003 10:00	1593.39	4,520	715.85	434.64	22,100	5.80	6,160	24.02	40,600	22.38	40,800	
10/20/2003 10:15		4,600			23,500	5.88	6,410	24.29	41,900	22.44	41,000	Corps notifies Don Dixon at Skagit County P/W that the Corps has taken control of Ross and U/B for f/c.
10/20/2003 10:30		4,690		434.83	24,100	5.99	6,760	24.47	42,800	22.44	41,000	Corps notifies Alan Wilkins of Concrete of 40 ft forecast. Tells him Corps has control of U/B and Ross.
10/20/2003 10:45		4,780			25,100	6.12	7,180	24.65	43,700	22.44	41,000	PSE notifies Corps that spill gates at U/B are wide open, only able to discharge a maximum of 25,700 cfs with current pool elev.
10/20/2003 11:00	1593.56	5,310	715.90	434.97	25,800	6.26	7,650	24.84	44,700	22.43	41,000	Corps speaks to PSE about need to prepare to close gates at L/B when they reduce discharge from U/B so PSE doesn't draft L/B during peak flows in Skagit River.
10/20/2003 11:15		6,320			26,000	6.42	8,200	25.19	46,500	22.44	41,000	
10/20/2003 11:30		6,969		435.13	26,400		8,950	25.29	47,000	22.43	41,000	
10/20/2003 11:45		7,470			26,600		10,000	25.51	48,200	22.45	41,000	
10/20/2003 12:00	1593.65	7,850	715.99	435.27	26,600		11,500	25.78	49,600	22.42	40,900	
10/20/2003 12:15		8,189			26,900		13,100	25.98	50,700	22.44	41,000	
10/20/2003 1220												SCL calls Corps to report total discharge from Ross of 5,000 cfs and Gorge outflow of 14,000 cfs.
10/20/2003 12:30		8,570	716.04	435.39	27,200		15,000	26.25	52,100	22.46	41,100	
10/20/2003 1233												E-MAIL SUMMARY FM CORPS TO PSE Per conversation by phone earlier today, appreciate PSE's willingness to allow the Corps to utilize the currently available space in U/B for f/c. When we spoke U/B was abt 715 ft. while the allowable elev for Oct 20 is abt 721 ft. We realize we are currently outside of the usual f/c period covered by our agmt with PSE and we greatly appreciate your willingness to allow the Corps to utilize the U/B project for f/c. I phoned

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												PSE dispatcher following our call and had them pass up to 30,000 cfs from U/B if possible until further notice, current maximum discharge fm U/B is abt 26,000 cfs based on the elev of U/B reservoir.
10/20/2003 12:45		9,150			27,300		17,000	26.25	52,100	22.48	41,100	
10/20/2003 13:00	1593.77	9,750	716.09	435.49	27,600		18,900		55,700	22.47	41,100	
10/20/2003 13:15		10,300			27,700		20,700	27.14	57,099	22.52	41,300	
10/20/2003 13:30		10,800	716.10	435.60	28,000		22,600		59,400	22.57	41,500	
10/20/2003 13:45		11,300			28,199		24,500	27.87	61,200	22.61	41,700	
10/20/2003 14:00	1593.99	11,800	716.12	435.69	28,299		26,300	28.25	63,500	22.66	41,900	L/B has 23 gates. 10 gates are wood and are operated using a gate car (sic). 13 gates are steel and can be operated electrically. 5 of these can be operated remotely.
10/20/2003 14:15		12,400			28,499		28,000		67,200	22.73	42,100	
10/20/2003 14:30		13,000	716.10	435.77	28,499		29,600	29.24	69,400	22.76	42,300	
10/20/2003 14:45		13,700			28,799		31,300		71,900	22.84	42,600	
10/20/2003 15:00	1594.17	14,399	716.11	435.87	28,999		33,100	29.65	71,900	22.88	42,800	
10/20/2003 15:15		15,100			29,199		35,000		75,000	22.97	43,100	
10/20/2003 15:30		15,600	716.11	435.95	29,600		37,700		78,900		43,600	
10/20/2003 15:45		16,700			29,600		39,400		82,100		44,000	
10/20/2003 16:00	1594.42	17,400	716.11	436.03	29,800		41,200		85,100	23.26	44,300	U/B 716.06 Qin=25,802 Qout=25,802 Concrete 86,050 cfs. Concrete approaching 90,000. Corps instructs PSE to limit U/B discharge to 5,000 cfs and not to draft L/B.
10/20/2003 16:15		18,200			30,200		43,400		87,800		44,700	Corps talks to James Geluso from Skagit Valley Herald. Told him they have abt 53,000 acre feet of storage remaining and they have been passing inflow for last few hours. Just instructed U/B to cut back to 5,000 cfs.
10/20/2003 1620												Corps leaves v/m msg for Gene Galloway on cell phone that they had just cut back to 5,000 cfs at U/B and told dispatcher not to draft L/B. Gave him 764-6702 number to call if needed.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²																																																																
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)																																																																	
10/20/2003 16:30		18,900		436.11	30,300		45,700	32.44	90,100	23.46	45,200	SCL calls Corps. Corps instructs SCL to cutback discharge from 5,000 cfs to minimum flows ASAP. Gorge is discharging 25,000 cfs which is equal to what is coming in. Ross will still have "spinning reserve" in case there is an emergency and SCL has to pick up load. Corps said to call immediately if this happens.																																																																
10/20/2003 16:45		19,900			30,200		47,500		94,000		45,600	Corps called Skagit County EOC and let them know U/B reduced to 5,000 cfs and instructed Ross to go to min. flows. County is aware that NWS has Concrete stage of 40' and Mt. Vernon at 36'.																																																																
												SCL calls Corps to let them know they are cutting back to 2,000 cfs and will be down to 200 cfs by the end of the hour.																																																																
10/20/2003 1655												<p>Corps receives following data from PSE dispatcher.¹⁰</p> <p style="text-align: center;">UPPER BAKER</p> <table border="1"> <thead> <tr> <th>Time</th> <th>Qin</th> <th>Qout</th> <th>Elev</th> <th>Concrete</th> </tr> </thead> <tbody> <tr><td>1200</td><td>31264</td><td>25744</td><td>715.94</td><td>50,260</td></tr> <tr><td>1300</td><td>30235</td><td>25771</td><td>716.02</td><td>55,660</td></tr> <tr><td>1400</td><td>28075</td><td>25843</td><td>716.06</td><td>66,160</td></tr> <tr><td>1500</td><td>25866</td><td>25866</td><td>716.06</td><td>75,910</td></tr> <tr><td>1600</td><td>25862</td><td>25862</td><td>716.06</td><td>86,050</td></tr> <tr><td>1700</td><td>33284</td><td>14252</td><td>716.40</td><td>95,640</td></tr> <tr><td>1800</td><td>41556</td><td>5124</td><td>717.05</td><td>99,980</td></tr> <tr><td>1900</td><td>39154</td><td>5194</td><td>717.65</td><td>102,700</td></tr> <tr><td>2000</td><td>37044</td><td>5244</td><td>718.21</td><td>109,100</td></tr> <tr><td>2100</td><td>33921</td><td>5313</td><td>718.71</td><td>115,800</td></tr> <tr><td>2200</td><td>29468</td><td>5372</td><td>719.14</td><td>122,200</td></tr> </tbody> </table> <p style="text-align: center;">LOWER BAKER</p> <table border="1"> <tbody> <tr> <td>1200</td> <td>37461</td> <td>29877</td> <td>435.26</td> </tr> </tbody> </table>	Time	Qin	Qout	Elev	Concrete	1200	31264	25744	715.94	50,260	1300	30235	25771	716.02	55,660	1400	28075	25843	716.06	66,160	1500	25866	25866	716.06	75,910	1600	25862	25862	716.06	86,050	1700	33284	14252	716.40	95,640	1800	41556	5124	717.05	99,980	1900	39154	5194	717.65	102,700	2000	37044	5244	718.21	109,100	2100	33921	5313	718.71	115,800	2200	29468	5372	719.14	122,200	1200	37461	29877	435.26
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¹⁰ Clearly this data has got to be "projections" from **PSE** and not actual data given the fact that the entry in the log is being made at 1655 hours and the final figures are for 2200 hours. However, it just as clearly shows **PSE**'s intent to discharge a lot of water from L/B into the flood event.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												1300 37022 30998 435.49 1400 37161 31929 435.69 1500 37095 32655 435.86 1600 37755 33291 435.89 1700 25628 33500 435.89 1800 20414 30614 435.34 1900 20948 25652 435.16 2000 12654 18414 434.94 2100 13077 17997 434.75 2200 12123 17703 434.54
	1594.61	21,600			27,600	13.28	48,900	33.07	94,400		46,100	
10/20/2003 17:15		23,000			24,800	13.41	50,000	33.12	94,700		46,600	
10/20/2003 17:20												SCL called Corps to let them know they are having to pick up a bit of a load so next hourly average outflow might be about 1000 cfs. Corps says okay. SCL says Gorge has one spill gate out of service and the other gate is being operated remotely. The road between Newhalem and the dam has been washed out and there is no power at Gorge so they're running on a generator. Right now Gorge outflow is 26,800 cfs.
10/20/2003 17:30		24,100		435.53	23,100	13.56	51,300		97,700		47,300	
10/20/2003 17:45		25,000			22,600	13.74	52,800	33.54	97,700		47,800	
10/20/2003 18:00	1594.99	26,600		435.35	21,700	13.90	54,200	33.51	97,500		48,400	
10/20/2003 18:15		28,599			19,700		56,000	33.84	99,800		48,900	
10/20/2003 18:30		30,000		435.26	18,300	14.26	57,399	33.64	98,400		49,500	
10/20/2003 18:45		30,900			17,800	14.39	58,600		102,000		50,000	
10/20/2003 19:00	1595.28	31,300		435.17	17,800	14.54	60,000	34.17	102,000		50,600	
10/20/2003 19:15		31,400			17,800	14.70	61,400	34.15	102,000		51,300	
10/20/2003 19:30		30,200		435.06	17,700	14.86	62,900	34.15	102,000		51,900	
10/20/2003 19:45		29,099			17,700		66,000		105,000		52,600	
10/20/2003 20:00	1595.63	28,599		434.95	17,600		68,100		108,000		53,100	
10/20/2003 20:15		28,499			17,700		72,500	35.00	108,000		53,900	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/20/2003 20:30		28,599		434.84	17,700	15.94	73,500	35.20	110,000		54,600	
10/20/2003 20:45		28,499			17,700	16.12	75,300	35.44	111,000		55,300	
10/20/2003 21:00	1596.01	28,499		434.76	17,800	16.30	77,200		115,000		56,000	
10/20/2003 21:15		28,499			17,800		79,600	36.15	117,000		56,699	
10/20/2003 21:30		28,399		434.67	18,000		82,500	36.41	119,000		57,299	
10/20/2003 21:40												Corps calls SCL and tells them to increase Ross to 5,000 cfs immediately per the spillway gate regulation schedule. Qin=52,838 Qout=5,100 Ross Elev 1595.8
10/20/2003 21:45		28,399			18,000			36.75	121,000		57,899	
10/20/2003 22:00	1596.37	28,299		434.56	18,300	17.06			125,000		58,500	
10/20/2003 22:15		28,599			18,300	17.24		36.91	123,000		59,100	
10/20/2003 22:30		29,700		434.47	18,500	17.38		37.20	125,000		59,800	
10/20/2003 22:45		30,400			18,700	17.50		37.20	125,000		60,400	
10/20/2003 23:00	1596.69	30,400		434.37	18,900	17.66		37.59	128,000		60,900	
10/20/2003 23:15		29,600			19,100	17.80			131,000		61,600	
10/20/2003 23:30		28,599		434.28	19,200			38.03	131,000		62,200	
10/20/2003 23:45		28,100			19,600	18.22		38.12	132,000		62,700	
10/21/2003 0:00	1597.02	27,900	719.97	434.17	19,900	18.38		38.48	135,000	27.26	63,300	
10/21/2003 0:15		27,800			20,200	18.50		38.76	137,000		63,900	
10/21/2003 0:30		27,500		434.06	20,600	18.66		38.67	136,000		64,600	
10/21/2003 00:40												Corps request PSE turn off generation at L/B. PSE complies until at least 6 a.m. This will reduce outflow fm L/B by 4,200 cfs. 2400 hr data as follows: U/B Qin=28,000 Qout=5,500 L/B Qin=11,471 Qout=17,000 Concrete gauge 135,000
10/21/2003 0:45		26,700			20,000	18.73		38.67	136,000	27.56	65,000	
10/21/2003 1:00	1597.34	26,400		434.01	18,900				141,000		65,700	
10/21/2003 1:15		26,300			19,100	18.84		39.21	141,000	27.77	66,100	
10/21/2003 1:30		26,600		433.99	19,500	18.84			146,000	27.86	66,600	
10/21/2003 1:45		27,400			20,100	18.86		39.84	146,000		67,200	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/21/2003 2:00	1597.63	28,199		433.96	20,600	18.88		39.91	146,000	28.06	67,700	
10/21/2003 2:15		29,099			21,200	18.89	107000	40.30	149,000		68,300	LJK NOTE: Sauk River crest.
10/21/2003 0225												0200 data from PSE U/B 720.50 Qin=20,700 Qout=5,540 L/B 433.52 Qin=12,000 Qout=12,100 Corps instructs PSE to reduce outflow fm U/B to zero discharge until further notice.
10/21/2003 2:30		30,000		433.92	21,800	18.71		40.28	149,000	28.23	68,700	
10/21/2003 0240												Corps request PSE "consider" closing all spill gates at L/B and go to full powerhouse at L/B. This will minimize discharge to the Skagit River during the peak at Concrete. PSE will call back with its plan.
10/21/2003 2:45		30,500			22,400	18.59		40.24	149,000		69,300	
10/21/2003 0250												PSE calls Corps back. PSE sending a crew to L/B to close the wooden spill gates and open some of the electrically controlled spill gates to target a discharge flood at L/B of 4,000 cfs. Changes to take place in about 1.5 hours.
10/21/2003 3:00	1597.91	30,700		433.78	23,000	18.54			154,000	28.42	69,800	
10/21/2003 3:15		30,900			23,600	18.42		40.55	151,000	28.51	70,300	
10/21/2003 3:30		31,000		433.69	24,200				156,000	28.57	70,700	
10/21/2003 3:45		31,000			24,700	17.94			160,000	28.66	71,200	
10/21/2003 4:00	1598.22	30,900		433.58	25,000			41.57	160,000	28.75	71,700	
10/21/2003 4:15		30,500			25,100			41.57	160,000	28.80	72,000	
10/21/2003 4:30		29,600		433.50	25,100			41.79	162,000		72,700	
10/21/2003 4:45		28,699			25,100		83,100	41.79	162,000	28.99	73,100	
10/21/2003 5:00	1598.47	28,299		433.49	25,200		79,500	42.02	164,000	29.08	73,700	
10/21/2003 5:15		28,199			25,300		75,900	41.72	161,000	29.12	73,900	
10/21/2003 5:30		27,500		433.49	25,500		73,100	41.86	163,000	29.22	74,500	
10/21/2003 5:45		26,900			25,600	15.78	71,900	41.82	162,000	29.25	74,700	
10/21/2003 6:00	1598.77	26,700		433.50	25,700	15.72	71,300	41.97	164,000	29.31	75,000	
10/21/2003 0605												Corps calls PSE to get 0600 data. U/B 721.83

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												Qin=20,300 Qout=265 cfs L/B 433.49 Qin=4,880 Qout=4,640 Concrete 163,900 PSE requested turning on L/B generator. Corps says okay if they close spill gates so that L/B doesn't draft.
10/21/2003 6:15		26,600			25,800	15.68	70,900	42.21	166,000	29.35	75,300	LJK NOTE: Concrete crests.
10/21/2003 6:30		26,500		433.51	25,700	15.60	70,100	42.04	164,000	29.41	75,700	
10/21/2003 6:45		26,500			25,600	15.48	68,900	42.19	165,000	29.47	76,000	
10/21/2003 7:00	1599.00	26,500		433.51	25,500	15.34	67,500	42.04	164,000	29.48	76,100	
10/21/2003 7:15		26,500			25,200	15.20	66,200	41.86	163,000	29.57	76,600	
10/21/2003 0725												According to PSE data, total outflow from L/B has been about 4,600 cfs over the past couple of hours. The USGS Baker River at Concrete gage shows a flow of 25,200 cfs at 0715. This is obviously in error, and possibly due to the position on the gate at PSE 's fish weir immediately downstream of the gage.
10/21/2003 7:30		26,500		433.53	24,900	15.05	64,700	41.83	162,000	29.60	76,800	
10/21/2003 7:45		26,500			24,500	14.90	63,300	41.54	160,000	29.67	77,200	
10/21/2003 8:00	1599.27	26,500		433.53	24,100	14.75	61,900	41.91	163,000	29.74	77,700	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²																																													
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)																																														
10/21/2003 8:15		25,800			23,600	14.60	60,500		158,000	29.78	77,900																																														
10/21/2003 0820												<p>PSE dispatcher number is 425-885-4544.¹¹ PSE data for Baker Project is as follows:¹²</p> <p align="center">UPPER BAKER</p> <table border="0"> <tr> <td>Time</td> <td>Qin</td> <td>Qout</td> <td>Elev</td> <td>Concrete</td> </tr> <tr> <td>0800</td> <td>20497</td> <td>265</td> <td>722.5</td> <td></td> </tr> <tr> <td>0900</td> <td>19897</td> <td>265</td> <td>722.83</td> <td></td> </tr> <tr> <td>1000</td> <td>16969</td> <td>265</td> <td>723.11</td> <td></td> </tr> <tr> <td>1100</td> <td>18288</td> <td>264</td> <td>723.41</td> <td></td> </tr> </table> <p align="center">LOWER BAKER</p> <table border="0"> <tr> <td>0800</td> <td>5062</td> <td>4822</td> <td>433.52</td> <td>157600</td> </tr> <tr> <td>0900</td> <td>5350</td> <td>4822</td> <td>433.54</td> <td>157800</td> </tr> <tr> <td>1000</td> <td>4822</td> <td>4822</td> <td>433.54</td> <td>148700</td> </tr> <tr> <td>1100</td> <td>4558</td> <td>4822</td> <td>433.53</td> <td>142,100</td> </tr> </table>	Time	Qin	Qout	Elev	Concrete	0800	20497	265	722.5		0900	19897	265	722.83		1000	16969	265	723.11		1100	18288	264	723.41		0800	5062	4822	433.52	157600	0900	5350	4822	433.54	157800	1000	4822	4822	433.54	148700	1100	4558	4822	433.53	142,100
Time	Qin	Qout	Elev	Concrete																																																					
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10/21/2003 8:45		25,100			22,400	14.30	57,799	41.31	158,000		80,100																																														
10/21/2003 9:00	1599.50	24,900		433.54	21,700	14.15	56,399	41.29	158,000	30.14	80,200																																														
10/21/2003 9:15		24,700			21,000	14.01	55,200	41.12	156,000		81,000																																														
10/21/2003 9:30		24,600		433.55	20,300	13.88	54,100		151,000	30.29	81,200	Corps talks with PSE about shifting water stored in U/B to reduce the fill rate at U/B and also to help limit U/B to elev 724. The shift into L/B would use the available storage w/o increasing L/B outflow at the same time we agreed to increase L/B to 8,000 cfs at 1500 hrs for power generation. U/B has lost a transformer which will preclude generation for several days.																																													
10/21/2003 9:45		24,300			19,700	13.74	52,800	40.56	152,000		81,900																																														
10/21/2003 10:00	1599.72	23,800		433.55	18,900	13.61	51,700	40.40	150,000	30.45	82,200																																														
10/21/2003 10:15		23,400			18,300	13.48	50,600	40.21	149,000	30.54	82,800																																														
10/21/2003 10:30		22,700		433.55	17,500	13.36	49,600	40.11	148,000	30.62	83,300																																														

¹¹ So does this mean that the Corps people in Seattle are talking to **PSE** people in Bellevue? Who the hell is at the damn dam?

¹² Again, these have to be **PSE** projections and not actual data based on the time the entry was made into the log.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²																									
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)																										
10/21/2003 10:45		22,300			16,800	13.25	48,700		144,000	30.71	83,900																										
10/21/2003 11:00	1599.94	22,000		433.54	16,100	13.13	47,700	39.41	142,000	30.80	84,500																										
10/21/2003 11:15		21,400			15,500	13.02	46,800	39.26	141,000		85,300																										
10/21/2003 11:30		21,000		433.54	14,900	12.91	45,900	39.04	139,000																												
10/21/2003 11:45		20,600			14,199	12.80	45,000	38.81	137,000																												
10/21/2003 12:00	1600.16	20,400		433.53	13,600	12.70	44,200	38.79	137,000			<p>PSE data for Baker Project is as follows:</p> <p style="text-align: center;">UPPER BAKER</p> <table style="margin-left: 20px;"> <tr> <td>Time</td> <td>Qin</td> <td>Qout</td> <td>Elev</td> <td>Concrete</td> </tr> <tr> <td>1200</td> <td>17664</td> <td>264</td> <td>723.70</td> <td></td> </tr> <tr> <td>1300</td> <td>56602¹³</td> <td>2242</td> <td>724.6</td> <td></td> </tr> </table> <p style="text-align: center;">LOWER BAKER</p> <table style="margin-left: 20px;"> <tr> <td>1200</td> <td>4558</td> <td>4822</td> <td>433.52</td> <td>137400</td> </tr> <tr> <td>1300</td> <td>5315</td> <td>4787</td> <td>433.54</td> <td>127700</td> </tr> </table> <p>1st gate opened @ 12:18 pm; 2nd gate opened before 1300 ~5,000 cfs. Inflow affected by spill gate opening.</p>	Time	Qin	Qout	Elev	Concrete	1200	17664	264	723.70		1300	56602 ¹³	2242	724.6		1200	4558	4822	433.52	137400	1300	5315	4787	433.54	127700
Time	Qin	Qout	Elev	Concrete																																	
1200	17664	264	723.70																																		
1300	56602 ¹³	2242	724.6																																		
1200	4558	4822	433.52	137400																																	
1300	5315	4787	433.54	127700																																	
10/21/2003 12:15		20,200			13,000	12.58	43,300	38.56	135,000																												
10/21/2003 12:30		20,000	723.84	433.51	12,500	12.48	42,500		130,000			Corps request SCL to increase Ross to powerhouse generation about 13,000 cfs																									
10/21/2003 12:45		19,800			12,000	12.37	41,600	38.06	131,000																												
10/21/2003 13:00	1600.37	19,700		433.54	11,400	12.26	40,800	37.69	129,000			Corps requested PSE increase outflow from U/B to 10,000 cfs at 1400 hrs and stored in L/B. L/B should be increased to 8,000 cfs at 1500 hrs.																									
10/21/2003 13:15		19,600			11,000	12.16	40,000	37.46	127,000																												
10/21/2003 13:30		19,500	724.01	433.65	10,500	12.06	39,300	37.41	126,000																												
10/21/2003 13:45		19,400			10,100	11.96	38,600	37.41	126,000		94,800																										
10/21/2003 14:00	1600.55	19,400	724.04	433.90	9,690	11.86	37,800		123,000		95,700	Corps requested PSE increase U/B discharge to match inflow and L/B will increase to powerhouse capacity and the discharge at Concrete will be maintained at 130,000 cfs.																									
10/21/2003 14:15		19,300			9,280	11.76	37,100	36.95	123,000		96,800																										

¹³ More likely than not this should be 16,602.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/21/2003 14:30		19,200	724.06	434.07	8,920	11.66	36,400	36.58	120,000		98,000	
10/21/2003 14:45		19,100			8,570	11.57	35,700	36.42	119,000		99,200	
10/21/2003 15:00	1600.70	19,100	724.08	434.21	8,179	11.48	35,100	36.18	117,000		100,000	
10/21/2003 15:15		19,100			7,840	11.38	34,400		114,000		102,000	
10/21/2003 15:30		19,000	724.07	434.36	8,660	11.29	33,700	35.75	114,000			
10/21/2003 15:45		19,000			10,200	11.20	33,100	35.89	115,000			
10/21/2003 16:00	1600.83	19,000	724.05	434.53	10,100	11.10	32,400	35.58	112,000			
10/21/2003 16:15		18,900			10,100	11.02	31,900	35.53	112,000			
10/21/2003 16:30		18,900	724.04	434.66	9,940	10.93	31,300	35.65	113,000			
10/21/2003 16:45		18,900			11,500	10.84	30,700		109,000			Ross 1600.94 Corps instructs SCL to continue Ross outflow of 12,500 cfs.
10/21/2003 1646												Corps begins more aggressive evacuation of U/B. PSE is targeting 130,000 cfs @ Concrete. This will be accomplished by releasing more at L/B. The current decision is to release an additional 7,000 cfs. Given this release Corps told PSE to release 7,000 cfs more from U/B. There is also 8,000 cfs coming down from Ross. It will hit Concrete in about 4 to 5 hours.
10/21/2003 17:00	1600.92	18,900		434.90	12,300	10.76	30,200	35.05	109,000			
10/21/2003 17:15		18,800			12,900	10.67	29,600	35.28	110,000			
10/21/2003 17:30		18,800	723.86	435.08	13,000	10.58	28,999	34.99	108,000			
10/21/2003 17:45		18,800			14,199	10.50	28,499	34.72	106,000			
10/21/2003 18:00	1601.06	18,800	723.78	435.29	14,700	10.42	28,000	34.82	107,000			
10/21/2003 18:15		18,800			14,900	10.34	27,400	34.91	107,000			
10/21/2003 18:30		18,800		435.49	14,900	10.26	26,900	34.52	105,000			
10/21/2003 18:45		18,800			15,000	10.18	26,500	34.29	103,000			
10/21/2003 19:00	1601.12	18,800	723.58	435.67	15,100	10.10	26,000	34.21	102,000			
10/21/2003 19:15		18,900			15,100	10.02	25,500	34.21	102,000			
10/21/2003 1921												U/B 723.52 Qin=9295 Qout=21895 Concrete 103,500. Continuing to evacuate U/B. Asked PSE to increase discharge to 25,000 cfs and hold the pool at L/B constant.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/21/2003 19:30		19,300		435.83	15,300	9.95	25,000	34.07	101,000			
10/21/2003 19:45		19,600			15,300	9.88	24,600		98,100			
10/21/2003 20:00	1601.25	19,900		435.99	15,400	9.81	24,200	33.75	99,100			
10/21/2003 20:15		20,400			15,500	9.74	23,800	33.52	97,500			Ross elevation 1601.29. Instructed SCL to increase total outflow from Ross to 25,000.
10/21/2003 20:30		21,000	723.24	436.22	16,400	9.68	23,400	33.29	95,900			
10/21/2003 20:45		21,400			18,800	9.60	23,000	33.14	94,900			
10/21/2003 21:00	1601.29	21,800		436.36	21,200	9.54	22,600	33.00	93,900		126,000	
10/21/2003 21:15		22,500			22,200	9.48	22,300	33.16	95,000	35.92	126,000	
10/21/2003 21:30		23,200		436.37	25,200	9.42	22,000	33.13	94,800	35.99	127,000	
10/21/2003 21:45		23,600			27,900	9.36	21,600	33.41	96,800	36.00	127,000	
10/21/2003 22:00	1601.37	23,800	722.83	436.31	30,700	9.30	21,300	33.41	96,800	36.07	128,000	
10/21/2003 22:15		23,900			30,800	9.24	21,000	33.56	97,800	36.08	128,000	
10/21/2003 22:30		24,000		436.21	30,500	9.18	20,600	33.71	98,900	36.15	129,000	
10/21/2003 22:45		24,100			30,300	9.13	20,300	33.78	99,400	36.14	128,000	
10/21/2003 23:00	1601.40	24,100		436.13	30,300	9.08	20,100	33.69	98,700	36.16	129,000	
10/21/2003 2310												SCL advises Corps that Ross achieved 25,000 cfs outflow at 2250.
10/21/2003 23:15		24,200			30,100	9.02	19,800	33.69	98,700	36.19	129,000	LJK NOTE: Mt. Vernon Crest
10/21/2003 2325												U/B 722.48 Qin=8040 Qout=25,300 L/B 436.11 Qin=27,470 Qout=32,200 ¹⁴ Concrete 99,980 Corps instructs PSE not to draft L/B. PSE in process of closing 4 spill gates at L/B to reduce discharge.
10/21/2003 23:30		24,200		436.04	29,400	8.97	19,500	33.65	98,400	36.15	129,000	
10/21/2003 23:45		24,200			27,500	8.92	19,200		95,600	36.16	129,000	
10/22/2003 0:00	1601.38	24,200	722.24	436.00	25,900	8.86	18,900	33.28	95,800	36.18	129,000	
10/22/2003 0:15		25,300			25,700	8.81	18,600	33.18	95,100	36.19	129,000	
10/22/2003 0025												U/B 722.18 Qin=7,160 Qout=25,000 L/B 435.99 Qin=28,900 Qout=31,800

¹⁴ Note Baker River gage reading at 30,100. Again I believe this shows that Baker River gage has been understating flood flows during flood events. Or perhaps the gage was just stuck when they were only discharging 4,400 cfs.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												Concrete 97,110 PSE advises Corps that 4 spill gates were closed at L/B at 2355. L/B pool has been stable over last 30 minutes. Crew and operators from both L/B and U/B went home so any gate changes will require a delay to get operator up to the dams to operate the gates.
10/22/2003 0:30		27,700		436.00	25,700	8.76	18,400	32.97	93,700	36.19	129,000	
10/22/2003 0:45		29,600			25,500	8.71	18,100	32.97	93,700	36.19	129,000	
10/22/2003 1:00	1601.35	30,700		435.99	25,500	8.66	17,900	32.62	91,300	36.14	128,000	
10/22/2003 1:15		31,600			25,500	8.61	17,600	32.49	90,400	36.17	129,000	
10/22/2003 1:30		32,600		435.97	25,400	8.56	17,400	32.32	89,200	36.08	128,000	
10/22/2003 1:45		33,100			25,500	8.51	17,100	32.29	89,000	36.07	128,000	
10/22/2003 2:00	1601.37	32,200		435.96	25,400	8.46	16,900	32.29	89,000	36.09	128,000	
10/22/2003 2:15		31,500			25,300	8.42	16,700	32.23	88,600	36.07	128,000	
10/22/2003 2:30		31,300		435.95	25,300	8.37	16,400	32.06	87,500	36.05	128,000	
10/22/2003 2:45		31,200			25,200	8.32	16,200	32.12	87,900	36.03	127,000	
10/22/2003 3:00	1601.35	31,800		435.93	25,300	8.28	16,000	32.03	87,300	35.96	127,000	
10/22/2003 3:15		32,500			25,200	8.24	15,800	32.21	88,500	35.92	126,000	
10/22/2003 3:30		32,800		435.91	25,200	8.20	15,600	31.88	86,300	35.95	127,000	
10/22/2003 3:45		33,100			25,100	8.15	15,400	31.82	85,900	35.88	126,000	
10/22/2003 4:00	1601.27	33,100		435.90	25,100	8.11	15,200	31.93	86,600	35.81	125,000	
10/22/2003 4:15		33,200			25,100	8.07	15,000	31.85	86,100	35.76	125,000	
10/22/2003 4:30		33,300		435.87	24,900	8.02	14,700	31.97	86,900	35.73	124,000	
10/22/2003 4:45		33,400			25,000	7.98	14,599	31.81	85,800	35.70	124,000	
10/22/2003 5:00	1601.23	33,400		435.85	25,000	7.94	14,399	31.73	85,300	35.63	123,000	
10/22/2003 0510												U/B 720.75 Qin=7,841 Qout=24,185 L/B 435.84 Qin=27,186 Qout=28,506 Concrete 86,900 Corps advises PSE to reduce total outflow from U/B to 15,000 cfs at 0700. Gates at L/B would need to be adjusted so as not to draft L/B pool.
10/22/2003 5:15		33,400			24,900	7.90	14,199	31.73	85,300	35.59	123,000	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/22/2003 5:30		33,400		435.83	24,900	7.86	14,000	31.84	86,000	35.59	123,000	
10/22/2003 0540												NWRFC calls Corps and advises that front forecasted to move through area later today is expected to be wetter than forecasted. As such, Corps calls PSE and instructs to maintain 25,000 cfs out of U/B until further notice. PSE will disregard instructions to reduce discharge to 15,000 cfs at 0700 per Corps call at 0510.
10/22/2003 5:45		33,400			24,900	7.83	13,900	31.73	85,300	35.50	122,000	
10/22/2003 6:00	1601.14	33,400		435.81	24,900	7.80	13,700	31.75	85,400	35.45	122,000	
10/22/2003 6:15		33,400			24,900	7.77	13,600	31.88	86,300	35.37	121,000	
10/22/2003 6:30		33,400		435.79	24,800	7.74	13,500	31.75	85,400	35.36	121,000	
10/22/2003 6:45		33,400			24,800	7.70	13,300	31.59	84,400	35.29	120,000	
10/22/2003 7:00	1601.12	33,500		435.77	24,700	7.67	13,200	31.55	84,100	35.24	120,000	
10/22/2003 0710												PSE calls Corps to discuss strategy re operation of U/B. Current pool at U/B is about 720.1 which is 0.1 above the November 1 st flood target of 720. PSE wants to lower L/B to the bottom of the spill gates in the next few days to clear debris off the spill gates. Corps agrees to call them later in morning to discuss strategy. PSE also noted USGS Baker River gage reported erroneously high discharges from L/B dam during the Skagit crest in Concrete due to backwater effect from the Skagit on the Baker River gage.
10/22/2003 7:15		33,400			24,700	7.64	13,000	31.78	85,600	35.20	119,000	
10/22/2003 7:30		33,400		435.75	24,800	7.61	12,900	31.76	85,500	35.11	118,000	
10/22/2003 7:45		33,500			24,700	7.58	12,800	31.77	85,600	35.04	118,000	
10/22/2003 8:00	1601.04	33,600		435.72	24,600	7.56	12,700	31.95	86,800	35.00	117,000	
10/22/2003 8:15		33,400			24,600	7.52	12,500	31.85	86,100	34.93	117,000	
10/22/2003 8:30		33,300		435.70	24,500	7.50	12,400	31.87	86,200	34.98	117,000	
10/22/2003 8:45		33,300			24,500	7.46	12,200	31.65	84,800		116,000	
10/22/2003 9:00	1600.99	33,300		435.67	24,400	7.44	12,200	31.67	84,900	34.80	116,000	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/22/2003 9:15		33,200			24,600	7.41	12,000	31.80	85,800	34.75	115,000	
10/22/2003 0926												Corps instructs PSE to reduce U/B discharge to 20,000 cfs and to leave L/B as is.
10/22/2003 9:30		33,300		435.65	24,500	7.38	11,900	31.72	85,200	34.67	114,000	
10/22/2003 9:45		33,300			24,400	7.36	11,800	31.82	85,900	34.63	114,000	SCL advises Corps that discharge at Ross and Newhalem is 26,000 cfs and 33,000 cfs at this time. Section 7.02j of the WCM ¹⁵ says that discharge at these two locations should be limited to approx 25,000 and 30,000 cfs to avoid damages in the project. SCL says there are no reported damages. Skagit County maintenance dept. was not answering phone calls.
10/22/2003 0950												Corps talks to PSE re debris removal around L/B spill gates. PSE needs to draft L/B to 424 feet using spill gates. Then will use power unit to draft 2 more feet to 422. To accomplish this U/B outflow to remain at 20,000 cfs while maintaining L/B at 25,000 cfs. When Concrete drops further Corps will allow PSE to draft L/B faster by increasing the release.
10/22/2003 10:00	1600.93	33,300		435.56	24,300	7.33	11,700	31.67	84,900	34.55	113,000	
10/22/2003 10:15		33,300			24,200	7.30	11,600	31.70	85,100	34.51	113,000	
10/22/2003 10:30		33,400		435.47	24,200	7.28	11,500	31.70	85,100	34.47	113,000	
10/22/2003 10:45		33,400			23,900	7.26	11,400	31.63	84,600	34.40	112,000	
10/22/2003 11:00	1600.84	33,400		435.40	23,800	7.22	11,200	31.45	83,400		111,000	
10/22/2003 11:15		33,300			23,700	7.20	11,200	31.57	84,200	34.24	111,000	
10/22/2003 11:30		33,300	718.96	435.31	23,500	7.18	11,100	31.49	83,700	34.17	110,000	
10/22/2003 11:45		33,300			23,400	7.15	11,000	31.38	83,000	34.14	110,000	
10/22/2003 12:00	1600.76	33,300		435.25	23,400	7.13	10,900	31.32	82,600	34.06	109,000	
10/22/2003 12:15		33,300			23,200	7.10	10,800	31.31	82,500	34.00	108,000	
10/22/2003 12:30		33,300		435.18	23,100	7.08	10,700	31.37	82,900	33.94	108,000	

¹⁵ Water Control Manual

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/22/2003 12:45		33,000			23,200	7.06	10,600	31.30	82,400	33.93	108,000	SCL wanted to know what the plan was for the next few days. Based on current forecast Corps felt SCL could reduce Ross outflows to 20,000 cfs and would last through the night. Ross would draft but very slowly to 1599 on Friday. If the forecast goes up the Corps could use U/B to reduce flows and Ross would store if inflow is greater than 20,000. If forecast goes down then 20,000 cfs out of Ross won't be a problem.
10/22/2003 12:50												Corps formally request SCL to reduce Ross outflow to 20,000.
10/22/2003 13:00	1600.67	32,400		435.11	22,900	7.04	10,500	31.26	82,200	33.83	107,000	
10/22/2003 13:15		32,100			22,900	7.01	10,400	31.26	82,200	33.76	106,000	
10/22/2003 13:30		32,000		435.05	22,700	6.99	10,300	31.08	81,000	33.67	106,000	
10/22/2003 13:45		32,000			22,700	6.97	10,200	31.06	80,900	33.65	105,000	
10/22/2003 14:00	1600.61	31,900		434.99	22,500	6.94	10,100	31.36	82,800	33.59	105,000	
10/22/2003 14:15		32,000			22,500	6.93	10,100		80,000	33.54	104,000	
10/22/2003 14:30		32,000		434.91	22,400	6.90	9,970	30.78	79,100	33.48	104,000	
10/22/2003 14:45		32,000			22,300	6.88	9,890	30.78	79,100	33.41	103,000	
10/22/2003 15:00	1600.57	31,900		434.85	22,200	6.86	9,820	30.97	80,300	33.35	103,000	
10/22/2003 15:15		31,900			22,200	6.84	9,740	30.85	79,500	33.32	103,000	
10/22/2003 15:30		31,800		434.80	22,100	6.82	9,660	30.81	79,300		102,000	PSE informs Corps that debris prevents closure of gates. In order to reduce Baker River discharge into Skagit Corps ask PSE to reduce U/B discharge to 5,000 cfs and allow L/B to draft. By the time it rains and the Sauk River rises, L/B will be far enough to be passing inflow only with gates wide open, about 10,000 to 15,000 cfs. Tomorrow U/B allowed elevation is 721 feet. If U/B elev above this, Corps will need to plan a draft to get there by Thursday night.
10/22/2003 15:35												Corps calls PSE and instructs to reduce U/B

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
												discharge to 5,000 cfs and keep L/B as is.
10/22/2003 15:45		31,300			22,000	6.80	9,590	30.68	78,400	33.17	101,000	
10/22/2003 16:00	1600.51	30,000	717.94	434.69	22,000	6.78	9,510	30.69	78,500	33.09	101,000	
10/22/2003 16:15		28,999			21,200	6.76	9,440	30.66	78,300	33.08	101,000	
10/22/2003 16:30		28,000	717.90		20,900	6.74	9,360	30.61	78,000	33.01	100,000	
10/22/2003 16:45		27,200			20,400	6.72	9,290	30.54	77,500	33.03	100,000	
10/22/2003 17:00	1600.47	26,700	717.88		20,100	6.70	9,210	30.45	77,000	32.94	99,500	
10/22/2003 17:15		26,200			19,700	6.68	9,140	30.30	76,000	32.88	99,000	
10/22/2003 17:30		25,600	717.94	433.75	19,300	6.66	9,060	30.21	75,400	32.81	98,500	
10/22/2003 17:45		25,300			19,000	6.64	8,990	30.07	74,500	32.74	98,000	
10/22/2003 18:00	1600.41	25,000	717.88	433.49	18,600	6.62	8,920	30.07	74,500	32.72	97,800	
10/22/2003 18:15		24,900			18,400	6.60	8,840	30.07	74,500	32.67	97,500	
10/22/2003 18:30		24,800		433.25	18,000	6.58	8,770	29.87	73,300	32.65	97,300	
10/22/2003 18:45		24,700			17,700	6.58	8,770	29.73	72,400	32.59	96,900	
10/22/2003 19:00	1600.39	24,600	717.89	433.02	17,400	6.56	8,700	29.76	72,600	32.55	96,600	
10/22/2003 19:05												L/B 433.01 Qin=7,712 Qout=20,072 ¹⁶
10/22/2003 19:15		24,600			17,100	6.54	8,630	29.62	71,700	32.52	96,400	
10/22/2003 19:30		24,600	717.95	432.79	16,800	6.53	8,590	29.42	70,500	32.45	95,900	
10/22/2003 19:45		24,600			16,500	6.52	8,560	29.43	70,600	32.45	95,900	
10/22/2003 20:00	1600.35	24,500	717.92	432.59	16,200	6.50	8,480	29.36	70,100	32.37	95,300	
10/22/2003 20:15		24,600			16,100	6.50	8,480	29.26	69,500	32.34	95,100	
10/22/2003 20:25												Corps informs PSE they are officially handing back control of U/B to PSE .
10/22/2003 20:30		24,500	717.91	432.39	15,800	6.48	8,410	29.16	68,900	32.28	94,600	
10/22/2003 20:45		24,500			15,600	6.48	8,410	29.16	68,900	32.28	94,600	
10/22/2003 21:00	1600.32	24,400	717.96	432.20	15,400	6.46	8,340	28.99	67,900	32.23	94,300	
10/22/2003 21:15		24,500			15,200	6.46	8,340	29.04	68,200	32.16	93,800	
10/22/2003 21:30		24,500	717.95	432.03	14,900	6.44	8,270	28.87	67,200	32.12	93,500	
10/22/2003 21:45		24,500			14,700	6.44	8,270	28.74	66,400	32.09	93,300	
10/22/2003 22:00	1600.23	24,500	718.05	431.85	14,599	6.42	8,200	28.48	64,800	32.07	93,200	

¹⁶ Gage on Baker River reading 17,400.

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/22/2003 22:15		24,600			14,399	6.42	8,200	28.48	64,800		92,300	
10/22/2003 22:30		24,600	718.05	431.70	14,199	6.42	8,200	28.35	64,000	31.97	92,400	
10/22/2003 22:45		24,600			14,000	6.41	8,169	28.17	63,000	31.91	92,000	
10/22/2003 23:00	1600.22	24,600	718.08	431.57	13,800	6.40	8,129	28.07	62,400	31.84	91,500	
10/22/2003 23:15		24,600			13,700	6.40	8,129	27.97	61,800	31.81	91,300	
10/22/2003 23:30		24,600	718.09	431.42	13,600	6.40	8,129	27.98	61,900	31.73	90,800	
10/22/2003 23:45		24,800			13,400	6.39	8,100	27.87	61,200	31.72	90,700	
10/23/2003 0:00	1600.12	25,100	718.14	431.27	13,300	6.39	8,100	27.87	61,200	31.67	90,400	
10/23/2003 0:15		25,200			13,100	6.40	8,129	27.72	60,400	31.60	89,900	
10/23/2003 0:30		25,200	718.16	431.14	12,900	6.40	8,129	27.72	60,400	31.59	89,800	
10/23/2003 0:45		25,200			12,800	6.40	8,129	27.56	59,400	31.53	89,400	
10/23/2003 1:00	1600.10	25,200	718.18	431.01	12,700	6.42	8,200	27.56	59,400	31.48	89,000	
10/23/2003 1:15		25,200			12,600	6.42	8,200	27.59	59,600	31.44	88,800	
10/23/2003 1:30		25,300	718.17	430.89	12,400	6.44	8,270	27.49	59,000	31.44	88,800	
10/23/2003 1:45		25,300			12,400	6.46	8,340	27.45	58,800	31.39	88,400	
10/23/2003 2:00	1600.07	25,300	718.19	430.77	12,200	6.47	8,380	27.43	58,700	31.34	88,100	
10/23/2003 2:15		25,300			12,100	6.49	8,450	27.49	59,000	31.28	87,700	
10/23/2003 2:30		25,300	718.19	430.67	11,900	6.50	8,480	27.45	58,800	31.24	87,400	
10/23/2003 2:45		25,300			11,800	6.52	8,560	27.45	58,800	31.19	87,100	
10/23/2003 3:00	1600.04	25,300	718.22	430.54	11,700	6.54	8,630	27.40	58,500	31.16	86,900	
10/23/2003 3:15		25,400			11,700	6.57	8,740	27.47	58,900	31.12	86,600	
10/23/2003 3:30		25,400	718.20	430.44	11,500	6.58	8,770	27.41	58,600		85,900	
10/23/2003 3:45		25,400			11,400	6.60	8,840	27.47	58,900	30.96	85,500	
10/23/2003 4:00	1599.98	25,300	718.24	430.33	11,300	6.62	8,920	27.54	59,300	30.95	85,500	
10/23/2003 4:15		25,400			11,200	6.64	8,990	27.50	59,100	30.88	85,000	
10/23/2003 4:30		25,400	718.21	430.24	11,100	6.66	9,060	27.59	59,600	30.81	84,500	
10/23/2003 4:45		25,400			11,000	6.68	9,140	27.53	59,300	30.77	84,300	
10/23/2003 5:00	1599.95	25,400	718.23	430.15	10,900	6.69	9,170	27.62	59,800	30.72	83,900	
10/23/2003 5:15		25,400			10,900	6.70	9,210	27.62	59,800	30.65	83,500	
10/23/2003 5:30		25,400	718.22	430.05	10,800	6.72	9,290	27.77	60,700	30.62	83,300	
10/23/2003 5:45					10,700	6.74	9,360	27.62	59,800		82,600	
10/23/2003 6:00	1599.90		718.22	429.95	10,500	6.75	9,400	27.77	60,700	30.49	82,400	

**OCTOBER 2003 FLOOD EVENTS
THE BIG PICTURE**

Date & Time ¹	Ross	Newhalem	Upper Baker	Lower Baker	B/R	Sauk River		Concrete		Mount Vernon		Comments ²
	Elev.	Flow (cfs)	Elev.	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	Elev.	Flow (cfs)	
10/23/2003 6:15					10,500	6.76	9,440	27.77	60,700	30.41	81,900	
10/23/2003 6:30		25,300	718.24	429.87	10,500	6.78	9,510	27.68	60,100	30.40	81,900	
10/23/2003 6:45					10,400	6.78	9,510	27.58	59,600	30.35	81,500	
10/23/2003 7:00	1599.88		718.23	429.80	10,300	6.78	9,510	27.72	60,400	30.28	81,100	
10/23/2003 7:15					10,100			27.72	60,400	30.22	80,700	
10/23/2003 7:30		24,700			10,100			27.67	60,100			
10/23/2003 7:45								27.72	60,400			
10/23/2003 8:00	1599.79							27.63	59,800			
10/23/2003 8:15								27.59	59,600			
10/23/2003 8:30								27.67	60,100			
10/23/2003 8:45		24,400						27.61	59,700			
10/23/2003 9:00					9,510			27.51	59,200			
10/23/2003 9:15								27.48	59,000			
10/23/2003 0940												Corps gives SCL back control of Ross dam. SCL to utilize full powerhouse @Ross 13,000 cfs and close spillway.