

## HFE Comparison

Date	Mar-96	Nov-04	Mar-08	Nov-12
Duration	7 days, 16 hours	3 days and 19 hours	3 days and 16 hours	3 days and 19 hours
Peak (cfs)	45,000	40,000	42,500	43,000
Peak Duration	168 hrs (7 Days)	60 hrs (2.5 Days)	39 hrs (1.6 Days)	26 hrs (1.1 Days)
Up Ramp (cfs/hr)	4,000 cfs/hr until Power Plant Capacity (PPC) and then 4000 cfs/hr until peak.	4,000 cfs/hr until 15,000 cfs release, then 1,500 cfs/hr until Power Plant Capacity (PPC) and then ~1850 cfs/3 hr until peak.	1,500 cfs/hr until Power Plant Capacity (PPC) and then 1875 cfs/3 hr until peak.	1,500 cfs/hr until Power Plant Capacity (PPC) and then 1,500 cfs/hr until peak.
Down Ramp (cfs)	1,500 to PPC; 1,000 to 20,000 cfs/hr total release, then 500 cfs/hr until base flow of 8000 cfs/hr was reached.	1,500 cfs/hr to PPC and then 1500 cfs/hr to normal operations.	1500 cfs/hr to PPC and then 1500 cfs/hr to normal operations.	200 cfs/hr to 27,500 total release and then 1,000 cfs/hr to PPC then 1,500 cfs to normal operations.
Pre/Post flows (cfs)	8000 cfs steady before, 8000 cfs steady after.	8,000 cfs steady before, to 8,000 cfs steady after.	Between 7,000 to 15,000 cfs before, 7,000 cfs to 13,000 cfs after.	Between 7,000 cfs and 9,000 cfs before, to between 7,000 cfs and 9,000 cfs after.
Power Plant Capacity (cfs)	25,000	25,000	26,000	27,500
Total Bypass (af)	216,721	92,738	92,991	77,755