LITTLE GOOSE
2008 BULK "B" SPILL PATTERN

Spill Bays -- Stops								Total Stops	Total Spill Q (kcfs)	Total PH Q (kcfs)	Total River Q (kcfs) (see Note 1)	
1	2	3	4	5	6	7	8					
				3				3	5.7	13.3	18.9	
				4				4	7.7	17.9	25.5	
				4	1			5	9.4	22.0	31.4	
				4	1	1		6	11.2	26.1	37.3	
1	4	1	1					7	13.0	30.3	43.2	
1	4	1	1	1				8	14.7	34.4	49.1	
1	4	1	1	1	1			9	16.5	38.5	55.0	
1	4	1	1	1	1	1		10	18.3	42.7	60.9	
1	4	2	1	1	1	1		11	20.2	47.1	67.3	
1	4	2	2	1	1	1		12	22.1	51.6	73.7	
1	4	2	2	2	1	1		13	24.0	56.0	80.0	
1	4	2	2	2	2	1		14	25.9	60.5	86.4	
1	4	2	2	2	2	2		15	27.8	64.9	92.8	
	5	3	2	2	2	2		16	30.0	70.1	100.1	
	5	3	3	2	2	2		17	32.0	74.8	106.8	
	5	3	3	3	2	2		18	34.0	79.4	113.5	** Note 2
	5	3	3	3	3	2		19	36.0	84.1	120.1	
	5	3	3	3	3	3		20	38.0	88.8	126.8	
	5	4	3	3	3	3		21	40.0	90.3	130.3	** Note 3
	5	4	4	3	3	3		22	42.0	90.3	132.3	
	5	4	4	4	3	3		23	44.0	90.3	134.3	
	5	4	4	4	4	3		24	46.0	90.3	136.3	
	5	4	4	4	4	4		25	47.9	90.3	138.2	
	5	5	4	4	4	4		26	49.9	90.3	140.2	
	5	5	5	4	4	4		27	51.9	90.3	142.2	
	5	5	5	5	4	4		28	53.9	90.3	144.2	
	5	5	5	5	5	4		29	55.9	90.3	146.2	
	5	5	5	5	5	5		30	57.8	90.3	148.1	
	6	5	5	5	5	5		31	59.8	90.3	150.1	
	6	6	5	5	5	5		32	61.8	90.3	152.1	
	6	6	6	5	5	5		33	63.8	90.3	154.1	
	6	6	6	6	5	5		34	65.7	90.3	156.0	
	6	6	6	6	6	5		35	67.7	90.3	158.0	
	6	6	6	6	6	6		36	69.7	90.3	160.0	
	7	6	6	6	6	6		37	71.6	90.3	161.9	
	7	7	6	6	6	6		38	73.6	90.3	163.9	
	7	7	7	6	6	6		39	75.5	90.3	165.8	
	7	7	7	7	6	6		40	77.5	90.3	167.8	
	7	7	7	7	7	6		41	79.4	90.3	169.7	
	7	7	7	7	7	7		42	81.4	90.3	171.7	
	8	7	7	7	7	7		43	83.3	90.3	173.6	
	8	8	7	7	7	7		44	85.3	90.3	175.6	
	8	8	8	7	7	7		45	87.3	90.3	177.6	
	8	8	8	8	7	7		46	89.3	90.3	179.6	
	8	8	8	8	8	7		47	91.3	90.3	181.6	
	8	8	8	8	8	8		48	93.2	90.3	183.5	
	9	8	8	8	8	8		49	95.2	90.3	185.5	
	9	9	8	8	8	8		50	97.1	90.3	187.4	

LITTLE GOOSE
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Spill Bays -- Stops								Total Stops	Total Spill Q (kcfs)	Total PH Q (kcfs)	Total River Q (kcfs) (see Note 1)
1	2	3	4	5	6	7	8				
	9	9	9	8	8	8		51	99.1	90.3	189.4
	9	9	9	9	8	8		52	101.0	90.3	191.3
	9	9	9	9	9	8		53	102.9	90.3	193.2
	9	9	9	9	9	9		54	104.9	90.3	195.2
	10	9	9	9	9	9		55	106.9	90.3	197.2
	10	10	9	9	9	9		56	108.9	90.3	199.2
	10	10	10	9	9	9		57	110.9	90.3	201.2
	10	10	10	10	9	9		58	113.0	90.3	203.3
	10	10	10	10	10	9		59	115.0	90.3	205.3
	10	10	10	10	10	10		60	117.0	90.3	207.3
	11	10	10	10	10	10		61	119.0	90.3	209.3
	11	11	10	10	10	10		62	121.1	90.3	211.4
	11	11	11	10	10	10		63	123.1	90.3	213.4
	11	11	11	11	10	10		64	125.1	90.3	215.4
	11	11	11	11	11	10		65	127.2	90.3	217.5
	11	11	11	11	11	11		66	129.2	90.3	219.5
	12	11	11	11	11	11		67	131.2	90.3	221.5
	12	12	11	11	11	11		68	133.2	90.3	223.5
	12	12	12	11	11	11		69	135.3	90.3	225.6
	12	12	12	12	11	11		70	137.3	90.3	227.6
	12	12	12	12	12	11		71	139.3	90.3	229.6
	12	12	12	12	12	12		72	141.4	90.3	231.7
	13	12	12	12	12	12		73	143.4	90.3	233.7
	13	13	12	12	12	12		74	145.4	90.3	235.7
	13	13	13	12	12	12		75	147.4	90.3	237.7
	13	13	13	13	12	12		76	149.4	90.3	239.7
	13	13	13	13	13	12		77	151.4	90.3	241.7
	13	13	13	13	13	13		78	153.4	90.3	243.7
	14	13	13	13	13	13		79	155.4	90.3	245.7
	14	14	13	13	13	13		80	157.4	90.3	247.7
	14	14	14	13	13	13		81	159.4	90.3	249.7
	14	14	14	14	13	13		82	161.4	90.3	251.7
	14	14	14	14	14	13		83	163.4	90.3	253.7
	14	14	14	14	14	14		84	165.4	90.3	255.7
	15	14	14	14	14	14		85	167.4	90.3	257.7
	15	15	14	14	14	14		86	169.4	90.3	259.7
	15	15	15	14	14	14		87	171.4	90.3	261.7
	15	15	15	15	14	14		88	173.4	90.3	263.7
	15	15	15	15	15	14		89	175.4	90.3	265.7
	15	15	15	15	15	15		90	177.4	90.3	267.7
	16	15	15	15	15	15		91	179.3	90.3	269.6
	16	16	15	15	15	15		92	181.3	90.3	271.6
	16	16	16	15	15	15		93	183.3	90.3	273.6
	16	16	16	16	15	15		94	185.2	90.3	275.5
	16	16	16	16	16	15		95	187.2	90.3	277.5
	16	16	16	16	16	16		96	189.2	90.3	279.5

Notes:

1. The total river discharges shown in this table assume 30% spill. Actual total discharge (and thus % spill) may vary slightly for a given spill pattern to keep turbines within 1% of peak efficiency. This is true up to 25

total stops (with 6 turbines operating) or 21 stops (with 5 turbines operating), after which powerhouse capacity is reached and higher than 30% spill will be required as in Notes 3 or 4.

2. This is the highest spill level (18 total stops or 34.1 kcfs) for which this "B" bulk spill pattern is different from the "A" bulk spill configuration. For river discharges higher than 115 kcfs, the spill pattern will be essentially a uniform spill pattern, with 5 stops retained in Bay 2 to simulate an RSW. For higher river discharges, there is not enough difference in tailwater flow patterns to distinguish between treatments, and the spill pattern should reach a uniform pattern by the time the gas cap is reached as well.
3. This the approximate powerhouse discharge (90 kcfs) at which full powerhouse capacity is reached, with 5 turbine units operating within 1% peak efficiency rules. This is the maximum river discharge for which 30% spill can be maintained; above this will be a higher % spill. Unit 6 is currently out of service, and will likely remain out of service for the duration of the study.
4. Discharge estimates shown in this table are based on a forebay elevation of 634.0 ft.
5. Once the spill discharge reaches about 30 kcfs, Bays 1 and 8 are not operated to avoid gas cap problems because there are no spillway deflectors in those bays.
6. Powerhouse unit priority should be 1 ==> 6. It is especially important for Unit 1 to be on as much as possible during the duration of the study.