

### Lower Monumental Spill Operation Scenarios

The Corps needs to reduce the Lower Monumental spill cap to meet the state of Washington water quality standard. The three scenarios outlined below may be taken to at Lower Monumental Dam to reduced total dissolved gas in the Ice Harbor Dam forebay.

1. **(Default action)** 2 kcfs reduction of the 115% forebay/120% tailrace spill cap (from 17 kcfs to 15 kcfs). As the LMN-07 (bulk with RSW) does not go below 16.3 kcfs, the Corps would change to spill pattern LMN-09 (bulk with no RSW) and reduce the spill cap if necessary.
2. Switch to the uniform spill pattern, which would likely result in a reduction in TDG without the need to go below 17 kcfs.
3. Extrapolate the current bulk spill pattern (LMN-07) and reduce the 115% forebay/120% tailrace spill cap.

#### LMN Spill Patterns at Low Spill Rates

**Table LMN-7. [pg 1 of 3] Lower Monumental Dam Bulk Spill Patterns with RSW. <sup>a</sup>**

LMN Bulk Spill Patterns - # Gate Stops per Spillbay								Total Stops (#)	Spill <sup>a</sup> (kcfs)
Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8 <sup>b</sup>		
	2				4		RSW	6	16.3
	3				4		RSW	7	17.8
	3			1	4		RSW	8	19.6

**Table LMN-8. [pg 1 of 3] Lower Monumental Dam Uniform Spill Patterns with RSW. <sup>a, b</sup>**

LMN Uniform Spill Patterns - # Gate Stops per Spillbay								Total Stops (#)	Spill <sup>a</sup> (kcfs)
Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8 <sup>b</sup>		
	1	1	1	1	1		RSW	5	15.8
1	1	1	1	1	1		RSW	6	17.6

**Table LMN- 9. Lower Monumental Dam Spill Patterns with No RSW (Bay 8 Closed). <sup>a, b</sup>**

LMN Spill Patterns w/ NO RSW - # Gate Stops per Spillbay								Total Stops (#)	Spill <sup>a</sup> (kcfs)
Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8 <sup>b</sup>		
	1						CLOSE	1	1.8
	1					1	CLOSE	2	3.6
	1			1		1	CLOSE	3	5.4
	2			1		1	CLOSE	4	6.9
	2			1		2	CLOSE	5	8.4
	2			2		2	CLOSE	6	9.9
	2			2		3	CLOSE	7	11.4
	2			3		3	CLOSE	8	12.9
	2			3		4	CLOSE	9	14.3
	2			3		5	CLOSE	10	16.0
	2			4		5	CLOSE	11	17.4

a. Spill (kcfs) is calculated as a function of total stops at forebay elevation 537.0 ft.

b. When total project outflow is < 30 kcfs, RSW will be closed and spill distributed in patterns defined in this table (see criteria in section 2.3.2.7.v).

**Doble Testing week of 7/27-7/31:**

<b>LMN</b>	July 27-31	T1 (Units 1-4) all hours; T2 (Units 5, 6) daily 0600-1800	All units OOS daily 0600-1800 with Unit 5 at speed no load (5 kcfs) for station service. Units 5 & 6 RTS nightly 1800-0600 and operated per FPP priority order.
------------	---------------	--	---

During the evening, FOP spill would continue with this coordinated TDG operation if IHR forebay is exceeding the 115% water quality standard. During the day, forced spill above 17 kcfs may occur due to Unit 1-6 outages with only 5 kcfs speed no load.

After Doble testing, LMN spill can revert to 17 kcfs under the LMN-07 spill pattern if TDG in the IHR forebay is below 115%. Otherwise, continue with the coordinated operation.