

Table LMN-12. Lower Monumental Dam Spill Pattern 2009

| Spill Bay Stops |          |          |          |          |          |          |          | Total Stops <sup>2</sup> | Total Spill (kcfs) <sup>1</sup> |
|-----------------|----------|----------|----------|----------|----------|----------|----------|--------------------------|---------------------------------|
| 1               | 2        | 3        | 4        | 5        | 6        | 7        | 8        |                          |                                 |
| 0               | 1        | 0        | 0        | 0        | 0        | 0        | R        | 5.5                      | 8.6                             |
| 0               | 2        | 0        | 0        | 0        | 0        | 0        | R        | 6.5                      | 10.1                            |
| 0               | 2        | 0        | 0        | 0        | 1        | 0        | R        | 7.5                      | 11.9                            |
| 0               | 2        | 0        | 0        | 0        | 2        | 0        | R        | 8.5                      | 13.4                            |
| 0               | 2        | 0        | 0        | 0        | 3        | 0        | R        | 9.5                      | 14.9                            |
| 0               | 2        | 0        | 0        | 0        | 4        | 0        | R        | 10.5                     | 16.3                            |
| <b>0</b>        | <b>3</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>0</b> | <b>R</b> | 11.5                     | 17.8                            |
| 0               | 3        | 0        | 0        | 1        | 4        | 0        | R        | 12.5                     | 19.6                            |
| 0               | 3        | 0        | 0        | 1        | 5        | 0        | R        | 13.5                     | 21.3                            |
| 1               | 3        | 0        | 0        | 1        | 5        | 0        | R        | 14.5                     | 23.1                            |
| 1               | 1        | 1        | 1        | 1        | 6        | 0        | R        | 15.5                     | 25.4                            |
| 1               | 1        | 1        | 1        | 2        | 6        | 0        | R        | 16.5                     | 26.9                            |
| 1               | 1        | 1        | 2        | 2        | 6        | 0        | R        | 17.5                     | 28.4                            |
| 1               | 1        | 1        | 2        | 4        | 5        | 0        | R        | 18.5                     | 29.6                            |
| 1               | 1        | 1        | 2        | 5        | 5        | 0        | R        | 19.5                     | 31.3                            |
| 2               | 1        | 1        | 2        | 5        | 5        | 0        | R        | 20.5                     | 32.8                            |
| 2               | 1        | 2        | 2        | 5        | 5        | 0        | R        | 21.5                     | 34.3                            |
| 2               | 2        | 2        | 2        | 5        | 5        | 0        | R        | 22.5                     | 35.8                            |
| 3               | 2        | 2        | 2        | 5        | 5        | 0        | R        | 23.5                     | 37.3                            |
| 3               | 3        | 2        | 2        | 5        | 5        | 0        | R        | 24.5                     | 38.8                            |
| 3               | 3        | 2        | 2        | 5        | 5        | 1        | R        | 25.5                     | 40.6                            |
| 3               | 3        | 2        | 2        | 5        | 5        | 2        | R        | 26.5                     | 42.1                            |
| 3               | 3        | 2        | 3        | 5        | 5        | 2        | R        | 27.5                     | 43.6                            |
| 3               | 3        | 3        | 3        | 5        | 5        | 2        | R        | 28.5                     | 45.1                            |
| 3               | 3        | 3        | 3        | 5        | 6        | 2        | R        | 29.5                     | 46.8                            |
| 3               | 3        | 3        | 3        | 6        | 6        | 2        | R        | 30.5                     | 48.5                            |
| 3               | 3        | 3        | 3        | 6        | 6        | 3        | R        | 31.5                     | 50.0                            |
| 3               | 3        | 3        | 3        | 6        | 6        | 4        | R        | 32.5                     | 51.4                            |
| 3               | 3        | 3        | 3        | 6        | 6        | 5        | R        | 33.5                     | 53.1                            |
| 3               | 3        | 3        | 3        | 6        | 6        | 6        | R        | 34.5                     | 54.8                            |
| 3               | 3        | 3        | 4        | 6        | 6        | 6        | R        | 35.5                     | 56.2                            |
| 3               | 3        | 4        | 4        | 6        | 6        | 6        | R        | 36.5                     | 57.6                            |
| 3               | 4        | 4        | 4        | 6        | 6        | 6        | R        | 37.5                     | 59.0                            |
| 4               | 4        | 4        | 4        | 6        | 6        | 6        | R        | 38.5                     | 60.4                            |
| 4               | 4        | 4        | 5        | 6        | 6        | 6        | R        | 39.5                     | 62.1                            |

SUMMER

- 1) Total spill is based on a forebay elevation of 537.0 and interim spillway rating table dated 2 Apr 2009.
- 2) RSW in Bay 8 has a flow equivalent of 4.5 stops at forebay elevation 537.0.
- 3) Raise gate for the RSW bay above Stop 9 to ensure free surface and debris passage.

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| Spill Bay Stops |    |    |    |    |    |    |   | Total Stops <sup>2</sup> | Total Spill (kcfs) <sup>1</sup> |
|-----------------|----|----|----|----|----|----|---|--------------------------|---------------------------------|
| 1               | 2  | 3  | 4  | 5  | 6  | 7  | 8 |                          |                                 |
| 4               | 4  | 5  | 5  | 6  | 6  | 6  | R | 40.5                     | 63.8                            |
| 4               | 5  | 5  | 5  | 6  | 6  | 6  | R | 41.5                     | 65.5                            |
| 5               | 5  | 5  | 5  | 6  | 6  | 6  | R | 42.5                     | 67.2                            |
| 5               | 5  | 5  | 6  | 6  | 6  | 6  | R | 43.5                     | 68.9                            |
| 5               | 5  | 6  | 6  | 6  | 6  | 6  | R | 44.5                     | 70.6                            |
| 5               | 6  | 6  | 6  | 6  | 6  | 6  | R | 45.5                     | 72.3                            |
| 6               | 6  | 6  | 6  | 6  | 6  | 6  | R | 46.5                     | 74.0                            |
| 6               | 6  | 6  | 6  | 6  | 7  | 6  | R | 47.5                     | 75.6                            |
| 6               | 7  | 6  | 6  | 6  | 7  | 6  | R | 48.5                     | 77.2                            |
| 6               | 7  | 6  | 6  | 7  | 7  | 6  | R | 49.5                     | 78.8                            |
| 6               | 7  | 7  | 6  | 7  | 7  | 6  | R | 50.5                     | 80.4                            |
| 6               | 7  | 7  | 7  | 7  | 7  | 6  | R | 51.5                     | 82.0                            |
| 7               | 7  | 7  | 7  | 7  | 7  | 6  | R | 52.5                     | 83.6                            |
| 7               | 7  | 7  | 7  | 7  | 7  | 7  | R | 53.5                     | 85.2                            |
| 7               | 7  | 7  | 7  | 7  | 8  | 7  | R | 54.5                     | 87.0                            |
| 7               | 8  | 7  | 7  | 7  | 8  | 7  | R | 55.5                     | 88.8                            |
| 7               | 8  | 7  | 7  | 8  | 8  | 7  | R | 56.5                     | 90.6                            |
| 7               | 8  | 8  | 7  | 8  | 8  | 7  | R | 57.5                     | 92.4                            |
| 7               | 8  | 8  | 8  | 8  | 8  | 7  | R | 58.5                     | 94.2                            |
| 8               | 8  | 8  | 8  | 8  | 8  | 7  | R | 59.5                     | 96.0                            |
| 8               | 8  | 8  | 8  | 8  | 8  | 8  | R | 60.5                     | 97.8                            |
| 8               | 8  | 8  | 8  | 8  | 9  | 8  | R | 61.5                     | 99.4                            |
| 8               | 9  | 8  | 8  | 8  | 9  | 8  | R | 62.5                     | 101.0                           |
| 8               | 9  | 8  | 8  | 9  | 9  | 8  | R | 63.5                     | 102.6                           |
| 8               | 9  | 9  | 8  | 9  | 9  | 8  | R | 64.5                     | 104.2                           |
| 8               | 9  | 9  | 9  | 9  | 9  | 8  | R | 65.5                     | 105.8                           |
| 9               | 9  | 9  | 9  | 9  | 9  | 8  | R | 66.5                     | 107.4                           |
| 9               | 9  | 9  | 9  | 9  | 9  | 9  | R | 67.5                     | 109.0                           |
| 9               | 9  | 9  | 9  | 9  | 10 | 9  | R | 68.5                     | 110.8                           |
| 9               | 10 | 9  | 9  | 9  | 10 | 9  | R | 69.5                     | 112.6                           |
| 9               | 10 | 9  | 9  | 10 | 10 | 9  | R | 70.5                     | 114.4                           |
| 9               | 10 | 10 | 9  | 10 | 10 | 9  | R | 71.5                     | 116.2                           |
| 9               | 10 | 10 | 10 | 10 | 10 | 9  | R | 72.5                     | 118.0                           |
| 10              | 10 | 10 | 10 | 10 | 10 | 9  | R | 73.5                     | 119.8                           |
| 10              | 10 | 10 | 10 | 10 | 10 | 10 | R | 74.5                     | 121.6                           |

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2) RSW in Bay 8 has a flow equivalent of 4.5 stops at forebay elevation 537.0.

3) Raise gate for the RSW bay above Stop 9 to ensure free surface and debris passage.

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| Spill Bay Stops |    |    |    |    |    |    |   | Total Stops <sup>2</sup> | Total Spill (kcfs) <sup>1</sup> |
|-----------------|----|----|----|----|----|----|---|--------------------------|---------------------------------|
| 1               | 2  | 3  | 4  | 5  | 6  | 7  | 8 |                          |                                 |
| 10              | 10 | 10 | 10 | 10 | 11 | 10 | R | 75.5                     | 123.3                           |
| 10              | 11 | 10 | 10 | 10 | 11 | 10 | R | 76.5                     | 125.0                           |
| 10              | 11 | 10 | 10 | 11 | 11 | 10 | R | 77.5                     | 126.7                           |
| 10              | 11 | 11 | 10 | 11 | 11 | 10 | R | 78.5                     | 128.4                           |
| 10              | 11 | 11 | 11 | 11 | 11 | 10 | R | 79.5                     | 130.1                           |
| 11              | 11 | 11 | 11 | 11 | 11 | 10 | R | 80.5                     | 131.8                           |
| 11              | 11 | 11 | 11 | 11 | 11 | 11 | R | 81.5                     | 133.5                           |
| 11              | 11 | 11 | 11 | 11 | 12 | 11 | R | 82.5                     | 135.2                           |
| 11              | 12 | 11 | 11 | 11 | 12 | 11 | R | 83.5                     | 136.9                           |
| 11              | 12 | 11 | 11 | 12 | 12 | 11 | R | 84.5                     | 138.6                           |
| 11              | 12 | 12 | 11 | 12 | 12 | 11 | R | 85.5                     | 140.3                           |
| 11              | 12 | 12 | 12 | 12 | 12 | 11 | R | 86.5                     | 142.0                           |
| 12              | 12 | 12 | 12 | 12 | 12 | 11 | R | 87.5                     | 143.7                           |
| 12              | 12 | 12 | 12 | 12 | 12 | 12 | R | 88.5                     | 145.4                           |
| 12              | 12 | 12 | 12 | 12 | 13 | 12 | R | 89.5                     | 147.1                           |
| 12              | 13 | 12 | 12 | 12 | 13 | 12 | R | 90.5                     | 148.8                           |
| 12              | 13 | 12 | 12 | 13 | 13 | 12 | R | 91.5                     | 150.5                           |
| 12              | 13 | 13 | 12 | 13 | 13 | 12 | R | 92.5                     | 152.2                           |
| 12              | 13 | 13 | 13 | 13 | 13 | 12 | R | 93.5                     | 153.9                           |
| 13              | 13 | 13 | 13 | 13 | 13 | 12 | R | 94.5                     | 155.6                           |
| 13              | 13 | 13 | 13 | 13 | 13 | 13 | R | 95.5                     | 157.3                           |
| 13              | 13 | 13 | 13 | 13 | 14 | 13 | R | 96.5                     | 159.0                           |
| 13              | 14 | 13 | 13 | 13 | 14 | 13 | R | 97.5                     | 160.7                           |
| 13              | 14 | 13 | 13 | 14 | 14 | 13 | R | 98.5                     | 162.4                           |
| 13              | 14 | 14 | 13 | 14 | 14 | 13 | R | 99.5                     | 164.1                           |
| 13              | 14 | 14 | 14 | 14 | 14 | 13 | R | 100.5                    | 165.8                           |
| 14              | 14 | 14 | 14 | 14 | 14 | 13 | R | 101.5                    | 167.5                           |
| 14              | 14 | 14 | 14 | 14 | 14 | 14 | R | 102.5                    | 169.2                           |
| 14              | 14 | 14 | 14 | 14 | 15 | 14 | R | 103.5                    | 171.0                           |
| 14              | 15 | 14 | 14 | 14 | 15 | 14 | R | 104.5                    | 172.8                           |
| 14              | 15 | 14 | 14 | 15 | 15 | 14 | R | 105.5                    | 174.6                           |
| 14              | 15 | 15 | 14 | 15 | 15 | 14 | R | 106.5                    | 176.4                           |
| 14              | 15 | 15 | 15 | 15 | 15 | 14 | R | 107.5                    | 178.2                           |
| 15              | 15 | 15 | 15 | 15 | 15 | 14 | R | 108.5                    | 180.0                           |
| 15              | 15 | 15 | 15 | 15 | 15 | 15 | R | 109.5                    | 181.8                           |

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