

**Table 1
RESERVED WATER RIGHT FOR BLACK CANYON**

The ramping rate for the rising portion of the hydrograph is the greater of 500 cfs or 25% of the previous day flow. For the purposes of the attached figures, ramping starts on May 1 to meet the May 1 to July 31 baseflow. For purposes of the attached figures, ramping to meet the 1-day peak flow starts on May 10 every year. Ramping rate on the declining portion of the hydrograph is the greater of 400 cfs or 15% of the previous days flow. Ramping down of flows from the July 31 baseflow to the August 1 baseflow starts on August 1.

| Calendar Year | May 1 Forecast of April-July Inflow to Aspinall Unit (1000 ac-ft) | Actual April-July Inflow to Aspinall Unit (1000 ac-ft) | Annual Historical Inflow to Aspinall Unit (1000 ac-ft) | 1-Day Peak Flow | | | May 1 to July 31 Baseflow | | August 1 to April 30 Baseflow | | Annual Flow Requirement for Reserved Water Right | |
|---------------|--|---|---|---|---|--------------------------------------|---------------------------|--------------------------------------|-------------------------------|--------------------------------------|--|--------------------------------------|
| | | | | June 2008 Proposed Decree Before Drought Recovery Reduction | June 2008 Proposed Decree After Drought Recovery Adjustment | Proposed in Jan 17, 2001 Application | June 2008 Proposed Decree | Proposed in Jan 17, 2001 Application | June 2008 Proposed Decree | Proposed in Jan 17, 2001 Application | June 2008 Proposed Decree | Proposed in Jan 17, 2001 Application |
| | | | | (cfs) | (cfs) | (cfs) | (cfs) | (cfs) | (cfs) | (cfs) | (cfs) | (1000 ac-ft) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1975 | 1,000 | 850 | 1,311 | 7,595 | 7,595 | 10,920 | 1,000 | 1,000 | 300 | 300 | 436 | 492 |
| 1976 | 580 | 479 | 847 | 4,188 | 4,188 | 5,998 | 354 | 526 | 300 | 300 | 276 | 337 |
| 1977 | 240 | 167 | 412 | 829 | 829 | 1,372 | 300 | 300 | 300 | 300 | 218 | 222 |
| 1978 | 900 | 811 | 1,229 | 6,484 | 6,484 | 9,799 | 887 | 887 | 300 | 300 | 392 | 460 |
| 1979 | 1,050 | 934 | 1,396 | 11,034 | 11,034 | 11,472 | 1,056 | 1,539 | 300 | 300 | 503 | 572 |
| 1980 | 1,100 | 956 | 1,389 | 11,568 | 11,568 | 12,018 | 1,113 | 2,080 | 300 | 300 | 520 | 670 |
| 1981 | 280 | 281 | 605 | 886 | 886 | 1,969 | 300 | 300 | 300 | 300 | 220 | 230 |
| 1982 | 856 | 741 | 1,307 | 6,434 | 6,434 | 9,296 | 837 | 837 | 300 | 300 | 383 | 445 |
| 1983 | 690 | 892 | 1,624 | 5,864 | 5,864 | 7,347 | 650 | 650 | 300 | 300 | 345 | 374 |
| 1984 | 1,275 | 1,434 | 2,371 | 13,437 | 13,437 | 13,887 | 1,310 | 2,791 | 300 | 300 | 576 | 813 |
| 1985 | 925 | 1,041 | 1,787 | 6,513 | 6,513 | 10,081 | 915 | 915 | 300 | 300 | 397 | 468 |
| 1986 | 1,000 | 1,034 | 1,709 | 7,595 | 7,595 | 10,920 | 1,000 | 1,000 | 300 | 300 | 436 | 492 |
| 1987 | 675 | 788 | 1,323 | 5,635 | 5,635 | 7,166 | 609 | 633 | 300 | 300 | 336 | 369 |
| 1988 | 520 | 390 | 789 | 3,273 | 3,273 | 5,239 | 300 | 458 | 300 | 300 | 249 | 307 |
| 1989 | 448 | 443 | 792 | 2,176 | 2,176 | 4,302 | 300 | 377 | 300 | 300 | 232 | 281 |
| 1990 | 415 | 382 | 731 | 1,673 | 1,282 | 3,861 | 300 | 340 | 300 | 300 | 222 | 269 |
| 1991 | 600 | 600 | 1,101 | 4,492 | 4,492 | 6,247 | 408 | 548 | 300 | 300 | 288 | 344 |
| 1992 | 540 | 465 | 920 | 3,578 | 3,578 | 5,494 | 300 | 481 | 300 | 300 | 253 | 313 |
| 1993 | 1,020 | 985 | 1,633 | 8,922 | 8,922 | 11,142 | 1,023 | 1,214 | 300 | 300 | 455 | 532 |
| 1994 | 560 | 514 | 919 | 3,883 | 3,883 | 5,747 | 300 | 503 | 300 | 300 | 263 | 330 |
| 1995 | 950 | 1,242 | 2,098 | 6,866 | 6,866 | 10,363 | 944 | 944 | 300 | 300 | 406 | 476 |
| 1996 | 900 | 829 | 1,390 | 6,484 | 6,484 | 9,799 | 887 | 887 | 300 | 300 | 393 | 460 |
| 1997 | 1,000 | 1,060 | 1,743 | 7,595 | 7,595 | 10,920 | 1,000 | 1,000 | 300 | 300 | 436 | 492 |
| 1998 | 690 | 565 | 1,072 | 5,864 | 5,864 | 7,347 | 650 | 650 | 300 | 300 | 345 | 374 |
| 1999 | 600 | 676 | 1,219 | 4,492 | 4,492 | 6,247 | 408 | 548 | 300 | 300 | 288 | 344 |
| 2000 | 550 | 505 | 907 | 3,730 | 3,730 | 5,621 | 300 | 492 | 300 | 300 | 261 | 327 |
| 2001 | 530 | 506 | 800 | 3,426 | 3,426 | 5,367 | 300 | 469 | 300 | 300 | 251 | 309 |
| 2002 | 205 | 157 | 423 | 778 | 778 | 831 | 300 | 300 | 300 | 300 | 218 | 219 |
| 2003 | 485 | 429 | 751 | 2,740 | 1,869 | 4,787 | 300 | 419 | 300 | 300 | 229 | 294 |
| 2004 | 460 | 421 | 779 | 2,359 | 1,872 | 4,460 | 300 | 390 | 300 | 300 | 229 | 286 |
| 2005 | 750 | 588 | 990 | 6,312 | 6,312 | 8,062 | 718 | 718 | 300 | 300 | 373 | 394 |
| Avg | 703 | 683 | 1,173 | 5,378 | 5,321 | 7,357 | 625 | 780 | 300 | 300 | 337 | 397 |
| Max | 1,275 | 1,434 | 2,371 | 13,437 | 13,437 | 13,887 | 1,310 | 2,791 | 300 | 300 | 576 | 813 |
| Min | 205 | 157 | 412 | 778 | 778 | 831 | 300 | 300 | 300 | 300 | 218 | 219 |

Note: 1990, 2003 and 2004 are drought Recovery Years under paragraph 32.3 of the June 2008 draft decree and peak flow is reduced.

Explanation of Columns in Table 1

- (1) Calendar Year
- (2) May 1 Forecasted April-July Aspinall Unit Inflow (source" NPS Drought Recovery.xls" spreadsheet provided by Mark Wondzell)
- (3) Actual April-July Aspinall Unit Inflow (source" NPS Drought Recovery.xls" spreadsheet provided by Mark Wondzell)
- (4) Jan-Dec Historical Aspinall Unit Inflow as estimated by the Bureau of Reclamation
Note, the 2003-2005 values are from the Division 4 Engineer Gunnison Basin Accounting Spreadsheets.
- (5) Peak calculated using formulas described in paragraph 31.5.2 of the June 2008 Draft Decree in Case No. 01CW05.

| May - July Forecast Runoff | |
|-------------------------------|---|
| in 1,000 ac-ft | Peak flow (cfs) |
| 0 to 372 | $482.95 + 1.44 \times \text{Runoff}$ |
| 373 to 715 | $-4651.66 + 15.24 \times \text{Runoff}$ |
| 716 to 925 | $5449.13 + 1.15 \times \text{Runoff}$ |
| 926 to 1,001 | $-6975.28 + 14.57 \times \text{Runoff}$ |
| 1,002 to 1,050 | $-62886 + 70.4 \times \text{Runoff}$ |
| >1,050 | $-180 + 10.68 \times \text{Runoff}$ |

- (6) Calculated Peak reduced using formula described in paragraph 32.3.1 of the June 2008 Draft Decree in Case No. 01CW05. using Year Type as defined in Paragraph 30.2 of the June 2008 Draft Decree in Case No. 01CW05

| Forecast Runoff | Formula |
|-----------------|---------|
| 0 to 381 | Dry |
| 382 to 560 | Mod Dry |
| 561 to 709 | Avg Dry |
| 709 to 871 | Avg Wet |
| 871 to 1,123 | Mod Wet |
| >1,123 | Wet |

- (7) Peak calculated using formula described in January 17, 2001 Black Canyon Water Rights Application ($65 \times \text{Runoff}^{0.78} - 3,300$)
- (8) Calculated using formulas as described in paragraph 31.5.3 of the June 2008 Draft Decree in Case No. 01CW05.

| May - July Forecast Runoff | |
|-------------------------------|---|
| in 1,000 ac-ft | Baseflow (cfs) |
| 0 to 561 | 300 |
| 562 to 690 | $-1207.69 + \text{Runoff} \times 2.692$ |
| 691 to 1,000 | $-129 + \text{Runoff} \times 1.129$ |
| >1,000 | 1,000 |

- (9) Calculated using formulas in January 17, 2001 Black Canyon Water Rights Application. Note, ending period in application was July 25.

| May - July Forecast Runoff | |
|-------------------------------|------------------------------------|
| in 1,000 ac-ft | Flow |
| <380 | 300 |
| 380 to 1,000 | $1.129 \times \text{Col2} - 129$ |
| 1,000 to 1,120 | $10.83 \times \text{Col2} - 9,833$ |
| >1,120 | $3.18 \times \text{Col2} - 1,264$ |

- (10) Specified to be 300 cfs for all years as described in paragraph 31.5.1 of the June 2008 Draft Decree in Case No. 01CW05.
- (11) Specified in January 17, 2001 Application as being 300 cfs for all year types. Note, starting period in application for this period was July 26.
- (12) Calculated for each year as the sum of the flows requested for each day. Total is for Jan-Dec.
- (13) Calculated for each year as the sum of the flows requested for each day. Total is for Jan-Dec.