

# Dworshak : February Runoff Forecast & Flood Control Calculation

WY 2007

## Runoff Forecast and Flood Control

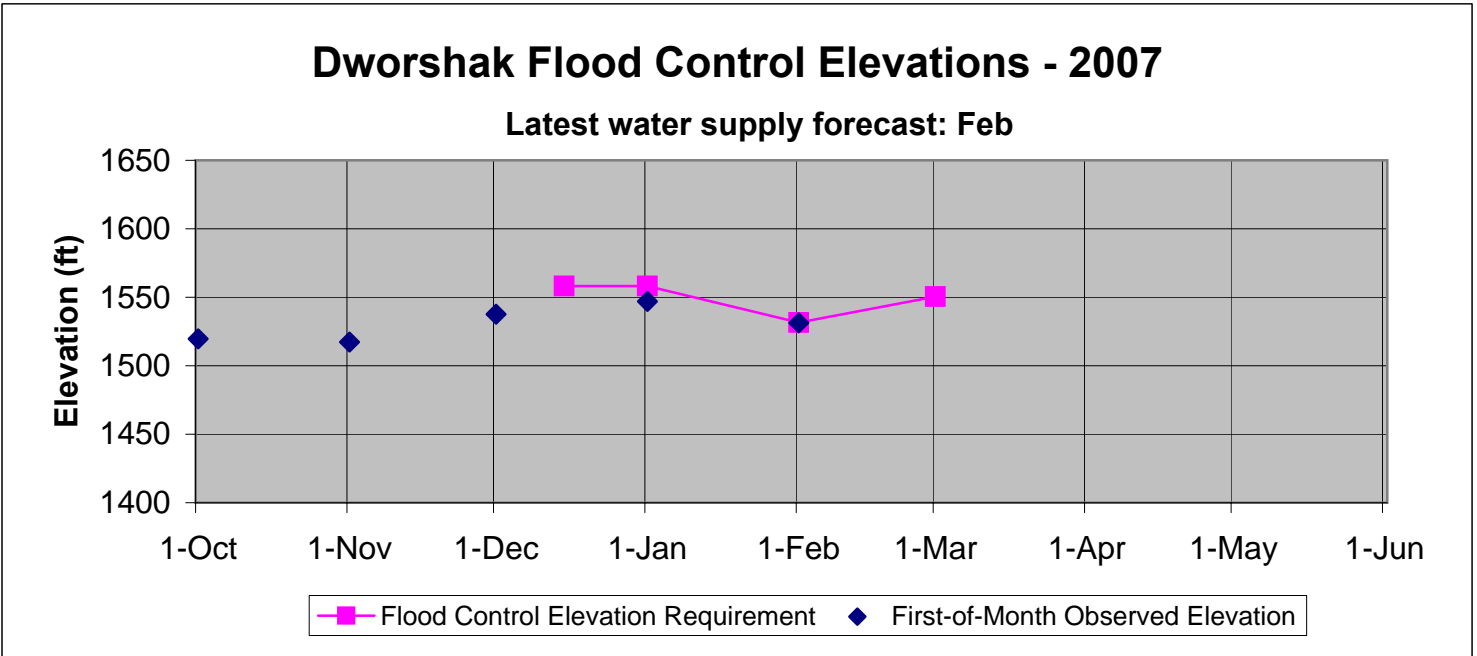
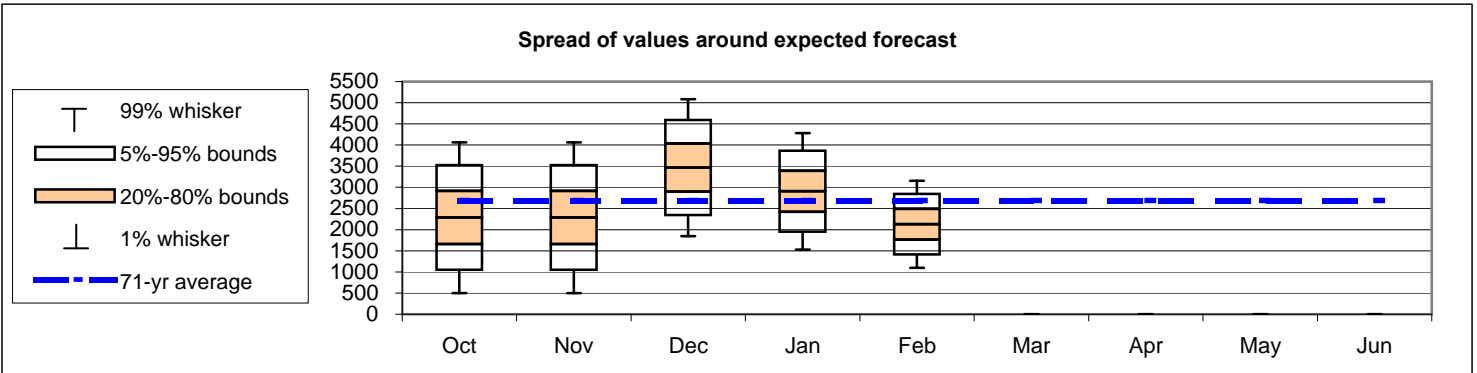
|  |                |               |            |
|--|----------------|---------------|------------|
| <b>Most Probable Runoff Volume</b>       | <b>Apr-Jul</b> | <b>2126</b>   | <b>KAF</b> |
|  | <b>May-Jul</b> | <b>1569</b>   | <b>KAF</b> |
| <b>28/29 Feb Flood Control Space</b>     |                | <b>814</b>    | <b>KAF</b> |
| <b>28/29 Feb Flood Control Elevation</b> |                | <b>1550.4</b> | <b>ft</b>  |

1929-1999  
Average

Percent of  
Average  
2683 79%  
1980 79%

## Seasonal Flood Control (assumes no shift of flood control space to Grand Coulee)

| Forecast Date >>               | Oct     | Nov           | Dec           | Jan           | Feb           | Mar           | Apr           | May           | Jun |
|--------------------------------|---------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----|
| <b>Apr-Jul Runoff Forecast</b> | 2283    | 2283          | 3465          | 2905          | 2126          |               |               |               |     |
| <b>First-of-Month Elev</b>     | 1519.51 | 1517.31       | 1537.71       | 1546.94       | 1531.2        |               |               |               |     |
| <b>Date &gt;&gt;</b>           |         | <b>15-Dec</b> | <b>31-Dec</b> | <b>31-Jan</b> | <b>28-Feb</b> | <b>31-Mar</b> | <b>15-Apr</b> | <b>30-Apr</b> |     |
| <b>Flood Control Space</b>     | --      | 700           | 700           | 1078          | 814           |               |               |               |     |
| <b>Flood Control Elevation</b> | --      | 1558.2        | 1558.2        | 1531.4        | 1550.4        |               |               |               |     |



Notes:  
 1. The given forecast is the official Corps of Engineers forecast for Dworshak. If you have any questions please contact Ken Soderlind (503 808-3950), Arun Mylvahanan (503) 808-3961, Patti Etzel (503 808-3958) or John McCoskery (503 808-3951).  
 2. Due to updated values for precipitation, snow or streamflow, subsequent forecasts may be different from the forecast published herein.  
 3. 15-Dec and 31-Dec flood control space is fixed at 700 KAF.

# Dworshak : February Runoff Forecast & Flood Control Calculation

| Apr-Jul Runoff Forecast Calculation: |       |                |              |                        |                       |
|--------------------------------------|-------|----------------|--------------|------------------------|-----------------------|
| Variable                             | Month | Observed Value | % of Average | Regression Coefficient | Marginal Runoff (KAF) |
|                                      |       | A              |              | B                      | =A*B                  |
| SOI                                  | Sep   | -0.70          |              | 108.05                 | -75.6                 |
| Elk Butte SWE                        | 1-Feb | 22.40          | 83%          | 19.57                  | 438.3                 |
| Hemlock Butte SWE                    | 1-Feb | 26.60          | 83%          | 17.27                  | 459.4                 |
| Hoodoo Basin SWE                     | 1-Feb | 24.60          | 82%          | 19.13                  | 470.6                 |
| Pierce SWE                           | 1-Feb | 6.00           | 77%          | 48.51                  | 291.1                 |
| DWR January Inflow                   | Jan   | 144.40         | 71%          | 0.895                  | 129.2                 |
| Intercept                            |       | 1              |              | 413.05                 | 413.1                 |
| 1-Feb Forecast (KAF)                 |       |                |              | Σ                      | 2126.1                |

| Data Station   | Sept  | Nov   | Dec  | 1-Jan | 1-Feb | 1-Mar | 1-Apr | 1-May | 1-Jun |
|--|-------|-------|------|-------|-------|-------|-------|-------|-------|
| <b>Climate (Stdzd SOI)</b>                                 |       |       |      |       |       |       |       |       |       |
| September SOI  | -0.70 |       |      |       |       |       |       |       |       |
| <b>Precipitation (monthly depth, inches)</b>               |       |       |      |       |       |       |       |       |       |
| Headquarters, ID   |       | 10.79 | 4.36 |       |       |       |       |       |       |
| <b>Snow Water Equiv (first of month SWE depth, inches)</b> |       |       |      |       |       |       |       |       |       |
| Elk Butte, ID  |       |       |      | 14.4  | 22.4  | --    | --    | --    | --    |
| Hemlock Butte, ID  |       |       |      | 19.0  | 26.6  | --    | --    | --    | --    |
| Hoodoo Basin, MT   |       |       |      | 18.2  | 24.6  | --    | --    | --    | --    |
| Pierce RS, ID  |       |       |      | 3.0   | 6.0   | --    |       |       |       |
| Shanghi Summit, ID   |       |       |      |       |       |       | --    | --    |       |
| Lost Lake, ID  |       |       |      |       |       |       |       | --    | --    |
| <b>Streamflow (monthly volume, KAF)</b>                    |       |       |      | Jan   | Feb   | Mar   | Apr   | May   | Jun   |
| Dworshak Inflow  |       |       |      | 144   | --    | --    | --    | --    | --    |