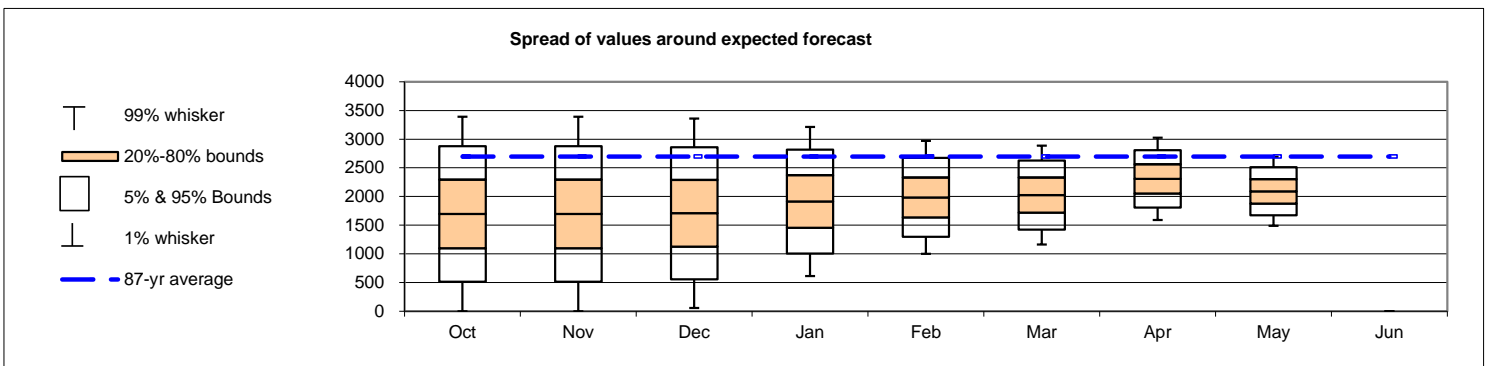


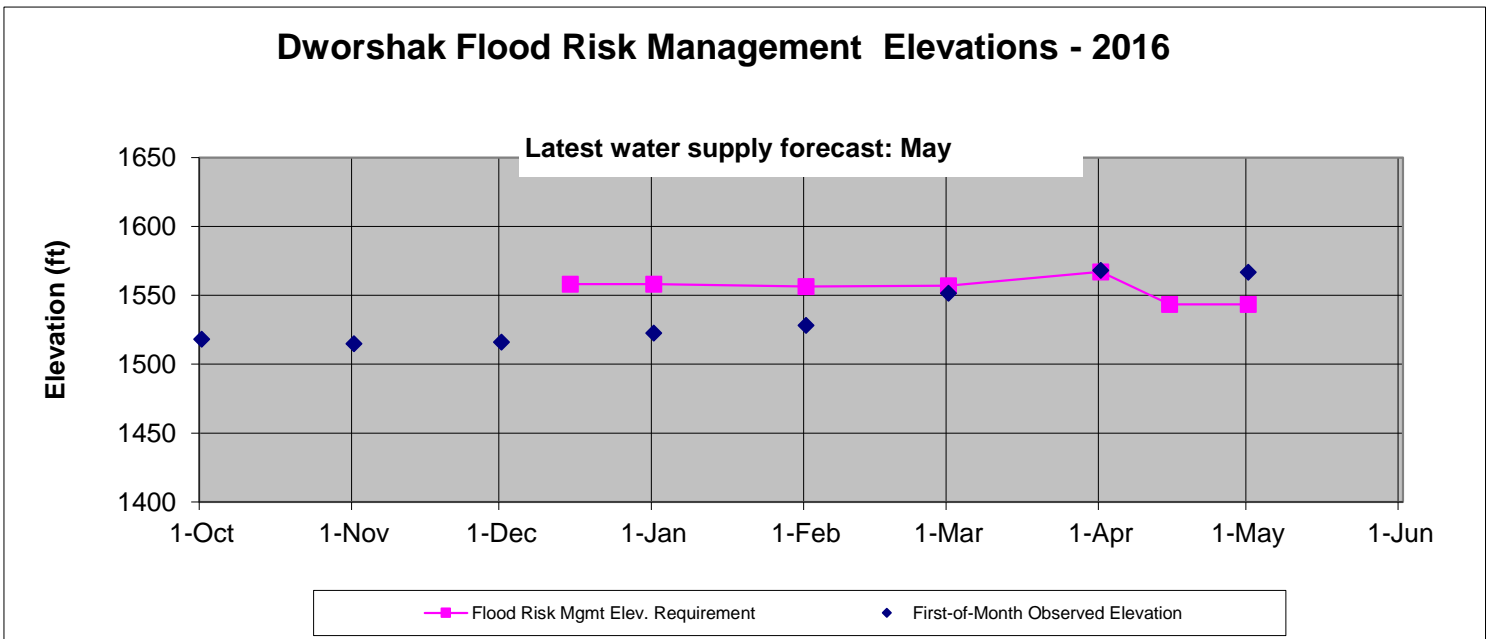
| Runoff Forecast and Flood Risk Management (FRM) | | | | 1981-2010 Average | Percent of 30yr Average | 1929-2008 Average | Percent of Average |
|---|---------|------|-----|-------------------|-------------------------|-------------------|--------------------|
| Most Probable Runoff Volume | Apr-Jul | 2090 | KAF | 2418 | 86% | 2696 | 78% |
| | May-Jul | 1179 | KAF | 1771 | 67% | 1972 | 60% |

| Seasonal Flood Risk Management (assumes no shift of flood risk management space to Grand Coulee) | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Forecast Date>> | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| Apr-Jul Runoff Forecast | 1676 | 1676 | 1708 | 1913 | 1986 | 2025 | 2308 | 2090 | |
| First-of-Month Elev | 1518.2 | 1515.0 | 1516.1 | 1522.7 | 1528.2 | 1551.6 | 1568.2 | 1566.8 | |

| Date >> | 15-Dec | 31-Dec | 31-Jan | 29-Feb | 31-Mar | 15-Apr | 30-Apr | 31-May |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| FRM Space | -- | 700 | 700 | 727 | 718 | 567 | 912 | 912 |
| FRM Elevation | -- | 1558.2 | 1558.2 | 1556.4 | 1557.0 | 1567.1 | 1543.5 | 1543.5 |



Dworshak Flood Risk Management Elevations - 2016



Dworshak : May Runoff Forecast & Flood Risk Management Calculation

| Apr-Jul Runoff Forecast Calculation | | | | | |
|-------------------------------------|-------|----------------|--------------|------------------------|-----------------------|
| Variable | Month | Observed Value | % of Average | Regression Coefficient | Marginal Runoff (KAF) |
| | | A | | B | =A*B |
| SOI | Sep | -1.60 | | 122.04 | -195.3 |
| Hoodoo Basin SWE | 1-May | 31.7 | 79% | 11.71 | 371.2 |
| Shanghi Summit SWE | 1-May | 8.4 | 61% | 14.41 | 121.0 |
| Lost Lake SWE | 1-May | 44.4 | 87% | 9.67 | 429.3 |
| Hemlock SWE | 1-May | 31.8 | 80% | 11.58 | 368.2 |
| Intercept | | 1 | | 84.24 | 84.2 |
| 1-May Forecast (KAF) | | | | Σ | 1178.8 |

| Data Station | Sept | Nov | Dec | 1-Jan | 1-Feb | 1-Mar | 1-Apr | 1-May | 1-Jun |
|--|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Climate (Stdzd SOI) | | | | | | | | | |
| September SOI | -1.60 | | | | | | | | |
| Precipitation (in) | | | | | | | | | |
| Headquarters, ID | 2.80 | 3.80 | 6.40 | 6.30 | 4.20 | 6.90 | 2.50 | | |
| Cumulative HQSI Data | 2.80 | 6.60 | 13.00 | 19.30 | 23.50 | 30.40 | 32.90 | | |
| Snow Water Equiv (First of Month values) (in) | | | | | | | | | |
| Elk Butte, ID | | | | 14.6 | 25.8 | 30.8 | 38.1 | | |
| Cool Creek, ID | | | | 17.2 | 26.5 | | | | |
| Hoodoo Basin, MT | | | | 15.1 | 22.6 | 29.6 | 36.7 | 31.7 | 0.0 |
| Sherwin, ID | | | | 4.6 | 7.3 | 5.5 | 0.7 | | |
| Shanghi Summit, ID | | | | | | | | 8.4 | 0.0 |
| Lost Lake, ID | | | | 19.9 | 31.7 | 41.2 | 52.3 | 44.4 | 0.0 |
| Hemlock, ID | | | | | | | | 31.8 | 0.0 |
| Crater Meadows Mar | | | | | | 37.9 | 50.3 | | |
| Streamflow (End of Month) (kaf) | | | | Jan | Feb | Mar | Apr | May | Jun |
| Dworshak Inflow | | | | 171 | 415 | 631 | 911 | -- | -- |

- Notes:
- The given forecast is the official Corps of Engineers forecast for Dworshak. If you have any questions please contact Steve Hall (509 527 7550), Wayne Jousma (509-527-7606), or Alfredo Rodriguez (509-527-7532).
 - Due to updated values for precipitation, snow or streamflow, subsequent forecasts may be different from the forecast published herein.
 - 15-Dec and 31-Dec Flood Management Space is fixed at 700 KAF.

Approval:

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