

## **NBR WEATHER SINCE 1909 METADATA:**

### **A. COLOR –**

- 1) Gray = year of study
- 2) Gold = month
- 3) Blue = precipitation (cm/month)
- 4) Rose = temperature (average °C/day)
- 5) Green = total precipitation and average monthly temperature for a year
- 6) Olive = annual precipitation (total cm) and average monthly temperature (°C)

### **B. YEAR/MONTH –**

- 1) Data collection = began in 1909.
- 2) Weather data from 1978 – July, 1999 was collected by the NBR staff at their original headquarters (latitude: 47 22 05; longitude: 114 15 03; elevation 795 m).
- 3) Weather data after July, 1999 (year marked with \*) was not regularly recorded by the NBR staff and the weather station was moved to the new headquarters. Therefore, weather data was used from the AgriMet weather station at Round Butte, MT (distance from NBR: 18.9 km; latitude: 47 32 22; longitude: 114 16 50; elevation: 926 m; established: 5/23/89; <http://www.usbr.gov/pn-bin/yearrpt.pl?StationName=RDBM&dataType=MM&START=1989&END=2000&head=no>). From 1989 – 2000, June precipitation and temperature were highly correlated between these two weather stations (precipitation:  $r = 0.94$ ,  $N = 12$ , constant  $p < 0.59$ , slope = 1.03 &  $p < 0.000001$ ; temperature:  $r = 0.94$ ,  $N = 12$ , constant  $p < 0.58$ , slope = 0.94 &  $p < 0.000008$ ).

### **C. WEATHER –**

- 1) Temperature = average of the maximum and minimum air temperature recorded for each day within a month of each year.
- 2) Precipitation = sum of daily precipitation for each day within a month of each year.
- 3) Annual precipitation = sum of all months in a year
- 4) Average annual temperature = average of all months in a year
- 5) Graph = time series of annual precipitation and temperature data