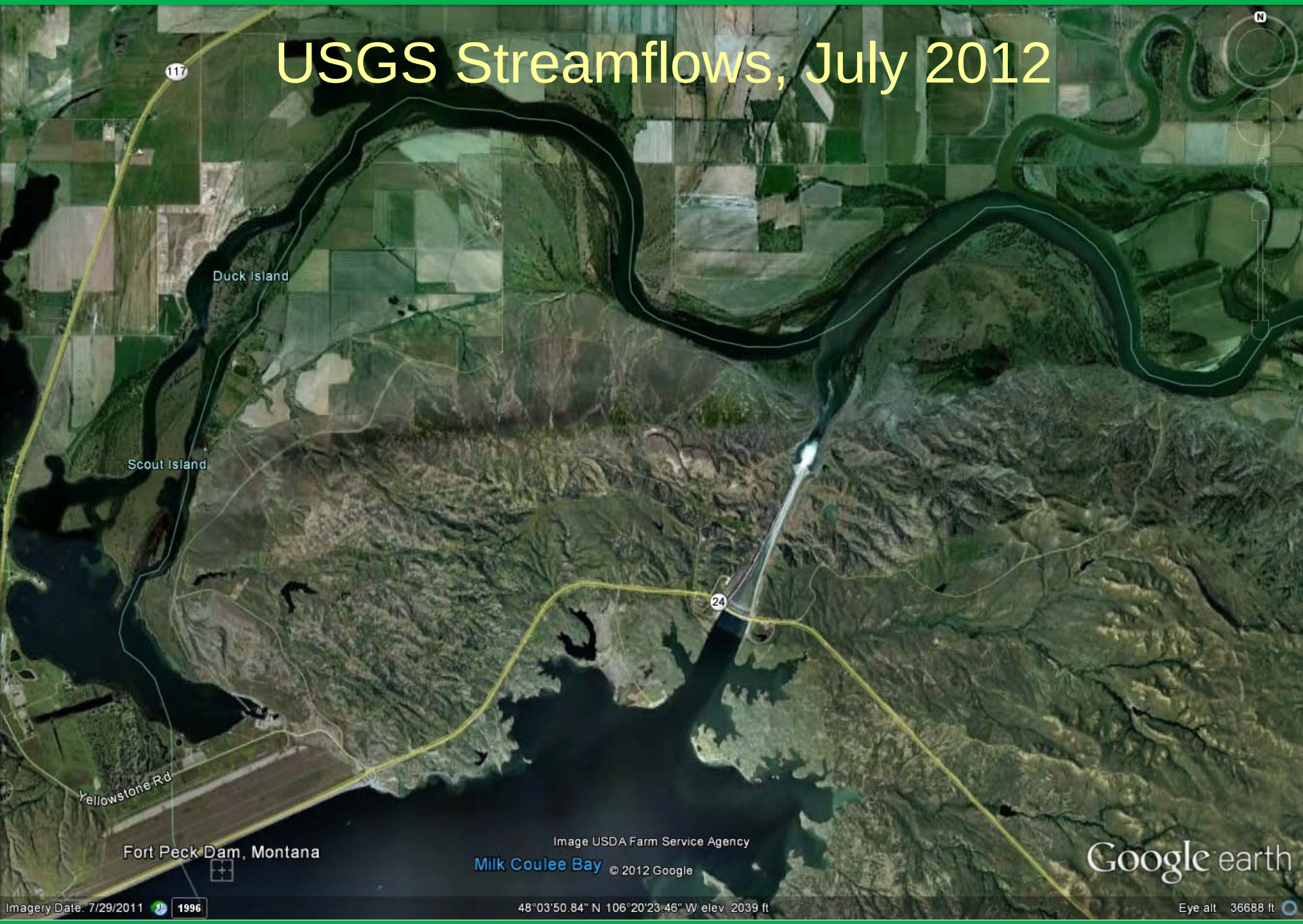
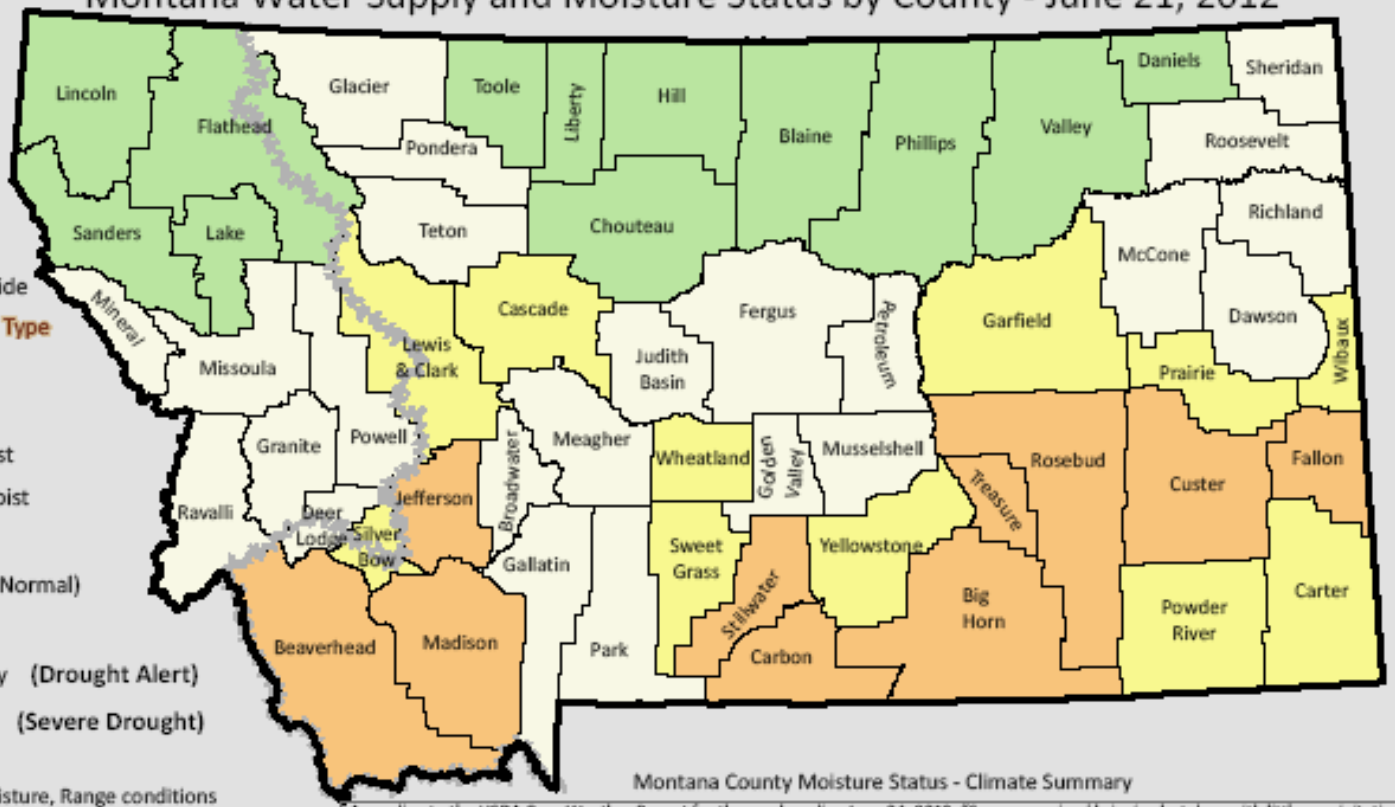
USGS Streamflows, July 2012



Montana Water Supply and Moisture Status by County - June 21, 2012



http://drought.mt.gov

Map Key

Continental Divide

Drought Impact Type

Moisture Status

June 2012

- Extremely Moist
- Moderately Moist
- Slightly Moist
- Near Average (Normal)
- Slightly Dry
- Moderately Dry (Drought Alert)
- Extremely Dry (Severe Drought)

Drought Impact Types -

A = Agricultural - Soil Moisture, Range conditions

H = Hydrological - Water Supplies, Streamflow, Groundwater

Drought Alert - Governor's Drought Advisory Committee strongly encourages local officials to convene local drought committees.

Severe Drought - Local officials should have local drought planning efforts underway or should reconvene the local drought committee at the earliest opportunity.

For recommended responses, see the Montana Drought Plan

Montana State Library Natural Resource Information System

http://nris.mt.gov/drought/

Montana County Moisture Status - Climate Summary

According to the USDA Crop Weather Report for the week ending June 24, 2012, "Summer arrived bringing hot days with little precipitation to most of Montana during the past week." Daily high temperatures are reaching into the high 80s and low 90s and the 6-10-day Outlook from NOAA's Climate Prediction Center calls for a return to near normal temperatures over most of the state with the eastern tier of the state slightly warmer. Precipitation is expected to be slightly higher than average in the northeast quarter of the state. The 8-14-day forecast calls for the southeast one-half of the state to be warmer than the northwest quarter which is expected to be normal. The southern tier is expected to be drier than the remainder of the state where normal precipitation is expected. Crop year precipitation ranges from 75- to 140 percent of normal across the state with some exceptions.

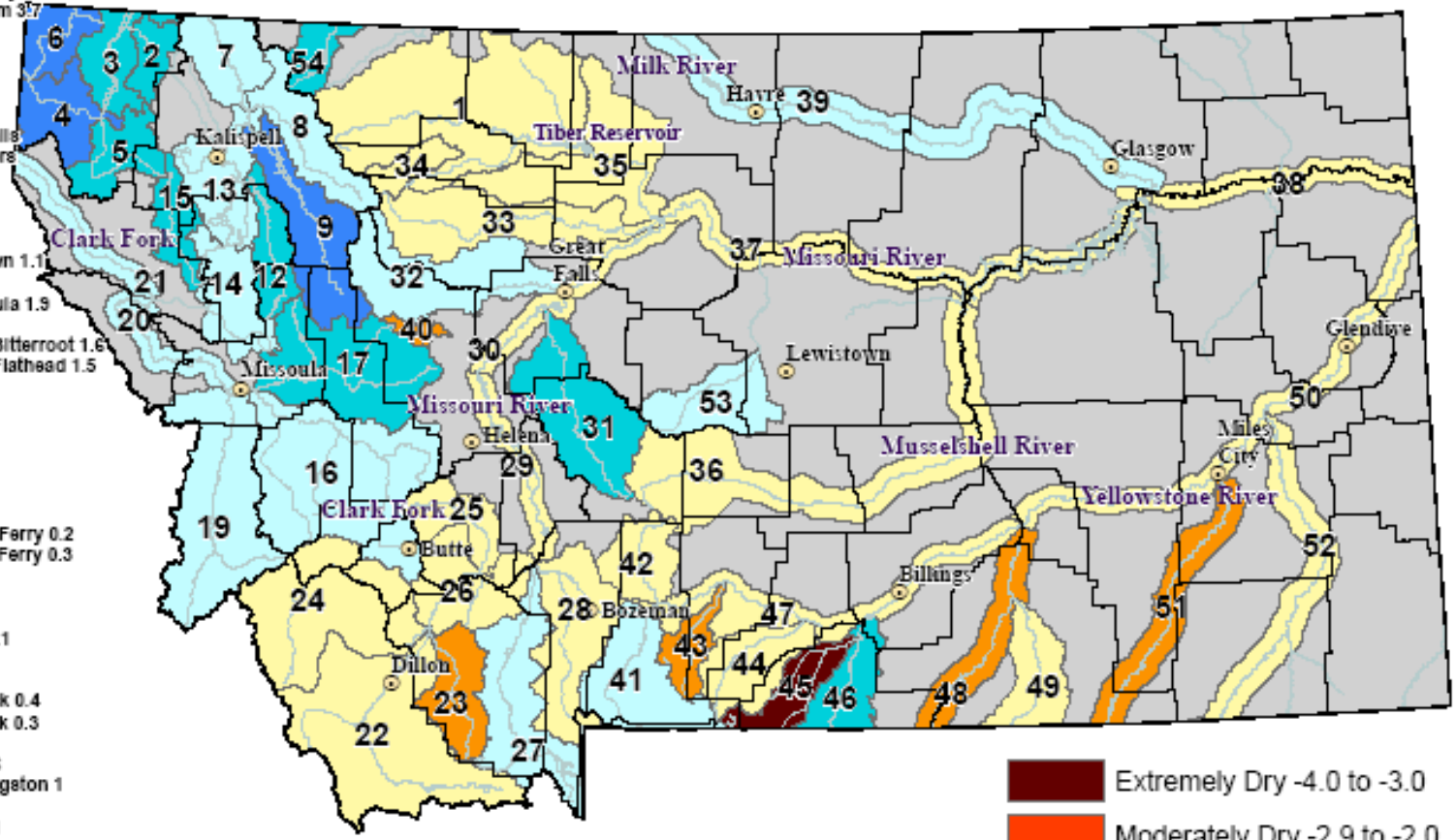
The report has topsoil moisture statewide at 64 percent adequate and surplus and subsoil moisture at 67 percent adequate to surplus at this time. Dry and windy conditions are hampering pasture grazing conditions and causing evapotranspiration to increase and plant water demand to run up as irrigators prepare for or take their fist cuttings of hay and alfalfa. The June 1 forecast yield for winter wheat is 40 bushels/acre and the crop is rated 53-percent good to excellent. Spring wheat is rated as 70-percent good to excellent.

The NRCS reports that mountain snowpack persists in the Kootenai and Flathead basins of the northwest corner of the state but the melt out of snow has been reached already in most of the remainder of the state. Streamflow prospects as of June 1 are mostly rated as normal with a near equal number of basins in the above and below average categories. The June 7 Surface Water Supply Index indicates that five river basins of 54 basins are rated as slightly dry with one basin extremely dry – Red Lodge / Rock Creek in Carbon County. The remaining 48 river basins are normal to moderately wet with the exception of two basins in the extremely wet category. The next meeting of the Governor's Drought Advisory Committee is set for July 19.

Surface Water Supply Index (SWSI) Values

RIVER INDEX & SWSI VALUES

1 Marias above Tiber Reservoir 0.2
2 Tobacco 2.7
3 Kootenai Ft. Steele to Libby Dam 2.5
4 Kootenai below Libby Dam 3.7
5 Fisher 2.4
6 Yaak 3.1
7 North FK. Flathead 1.3
8 Middle FK. Flathead 1.7
9 South FK. Flathead 3.1
10 Flathead at Columbia Falls
11 Stillwater/Whitefish Rivers
12 Swan 2.9
13 Flathead at Polson 1.4
14 Mission Valley 1.6
15 Little Bitterroot 2.3
16 Clark Fork above Milltown 1.1
17 Blackfoot 2.4
18 Clark Fork above Missoula 1.9
19 Bitterroot 1.9
20 Clark Fork River below Bitterroot 1.6
21 Clark Fork River below Flathead 1.5
22 Beaverhead -0.7
23 Ruby -1
24 Big Hole 0.6
25 Boulder (Jefferson) -0.1
26 Jefferson 0.4
27 Madison 1.4
28 Gallatin -0.3
29 Missouri above Canyon Ferry 0.2
30 Missouri below Canyon Ferry 0.3
31 Smith 2.8
32 Sun 1
33 Teton 0.1
34 Birch/Dupuyer Creeks 0.1
35 Marias 0.9
36 Musselshell 0.9
37 Missouri above Fort Peck 0.4
38 Missouri below Fort Peck 0.3
39 Milk 1.2
40 Dearborn near Craig -1.6
41 Yellowstone above Livingston 1
42 Shields 0.1
43 Boulder (Yellowstone) -1
44 Stillwater -0.4
45 Rock/Red Lodge Creeks -3.4
46 Clarks Fork Yellowstone 2.2
47 Yellowstone above Bighorn River 0.8
48 Bighorn below Bighorn Lake -1.4
49 Little Bighorn -0.8
50 Yellowstone below Bighorn -0.2
51 Tongue -1
52 Powder -0.9
53 Upper Judith 1.6
54 Saint Mary 2.4



June 7, 2012

NOTE: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.

- Extremely Dry -4.0 to -3.0
- Moderately Dry -2.9 to -2.0
- Slightly Dry -1.9 to -1.0
- Near Average -0.9 to 0.9
- Slightly Wet 1.0 to 1.9
- Moderately Wet 2.0 to 2.9
- Extremely Wet 3.0 to 4.0
- SWSI Not Applicable

United States Department of Agriculture
NRCS Natural Resources Conservation Service

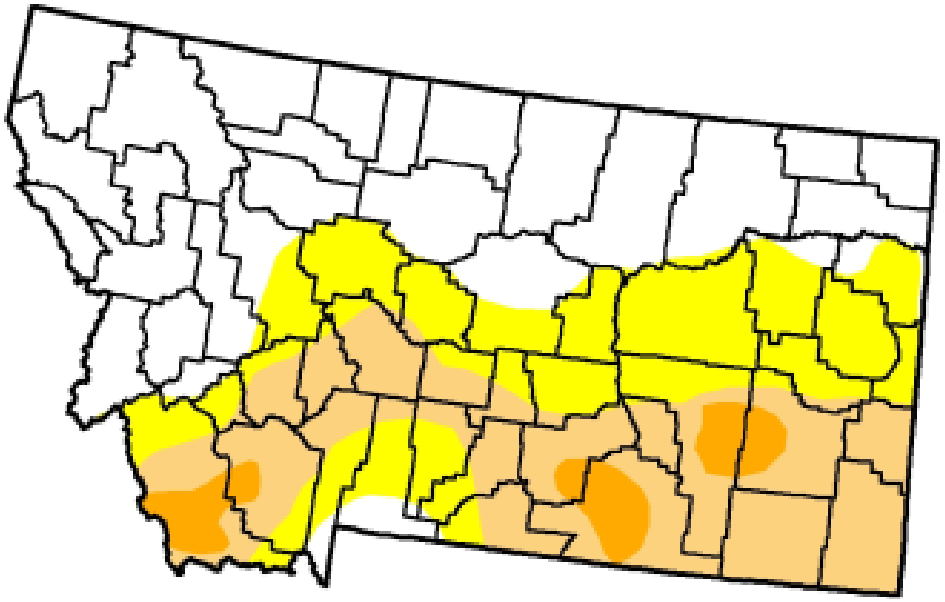
U.S. Drought Monitor

July 3, 2012
Valid 7 a.m. EST

Montana

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	46.63	53.37	28.42	4.32	0.00	0.00
Last Week (06/26/2012 map)	59.49	40.51	18.37	0.00	0.00	0.00
3 Months Ago (04/03/2012 map)	77.81	22.19	0.00	0.00	0.00	0.00
Start of Calendar Year (12/27/2011 map)	93.74	6.26	0.00	0.00	0.00	0.00
Start of Water Year (09/27/2011 map)	51.78	48.22	0.00	0.00	0.00	0.00
One Year Ago (06/28/2011 map)	100.00	0.00	0.00	0.00	0.00	0.00



Intensity:

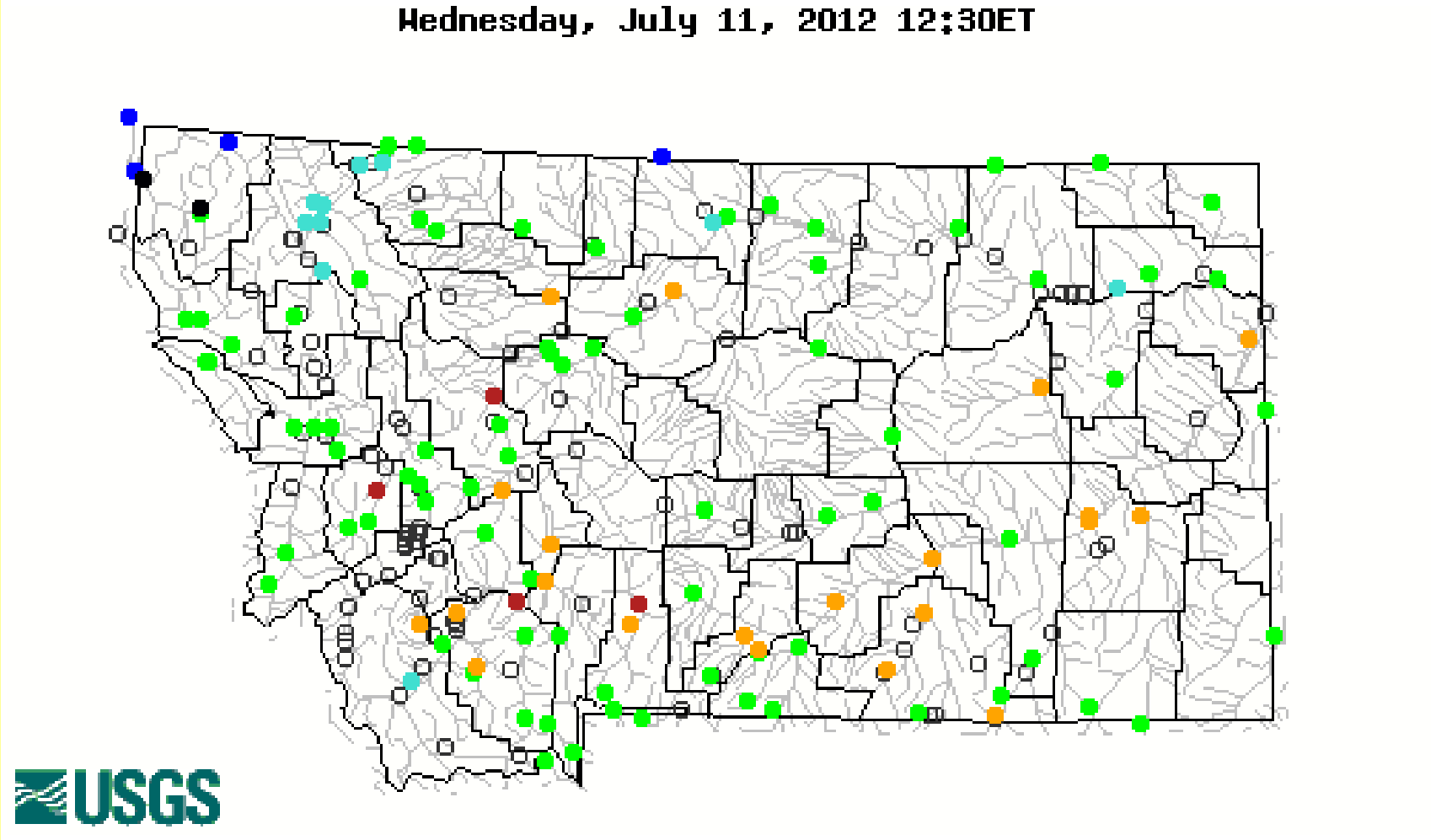
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu

Released Thursday, July 5, 2012
Rich Tinker, Climate Prediction Center/NOAA

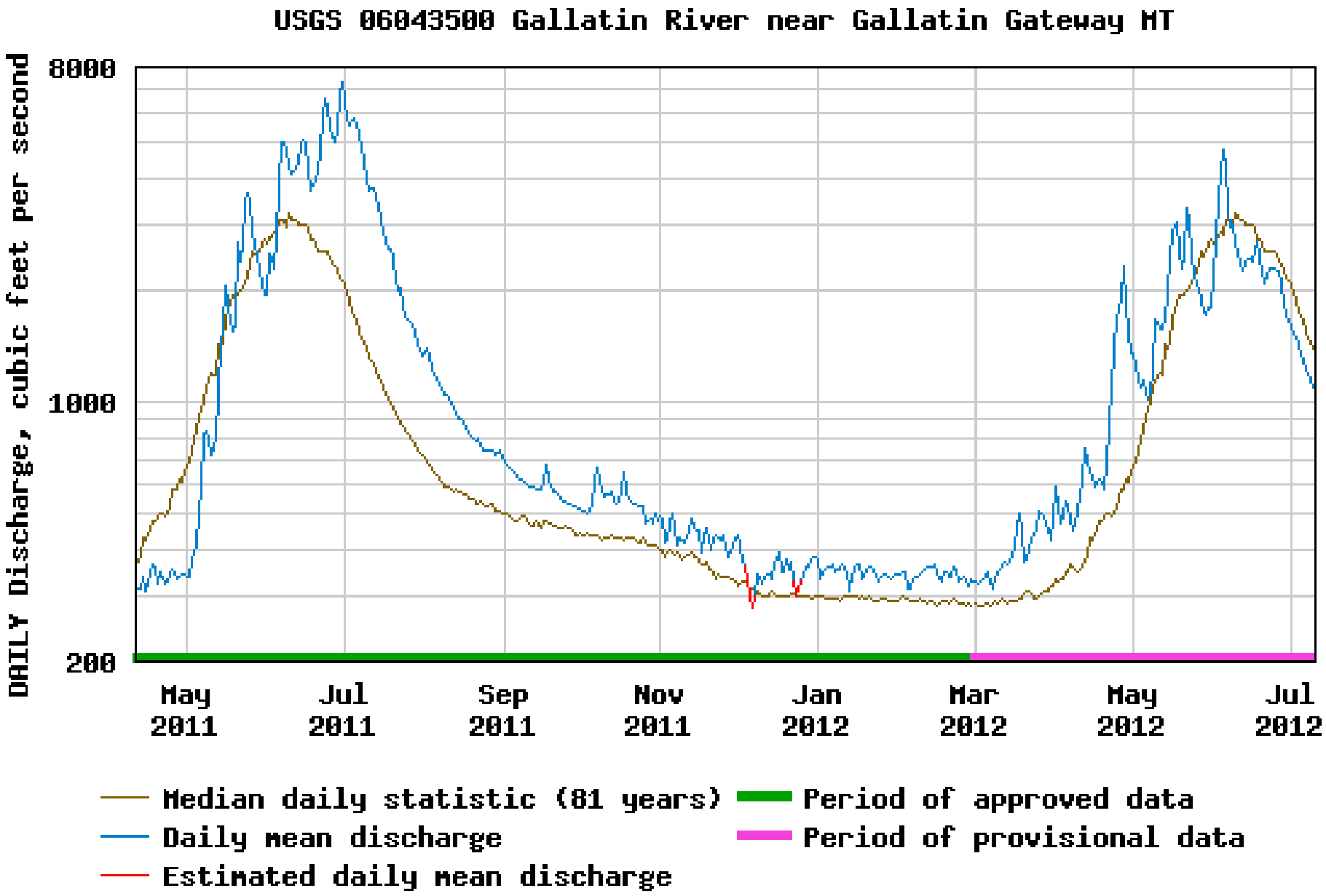
DAILY STREAMFLOW CONDITIONS

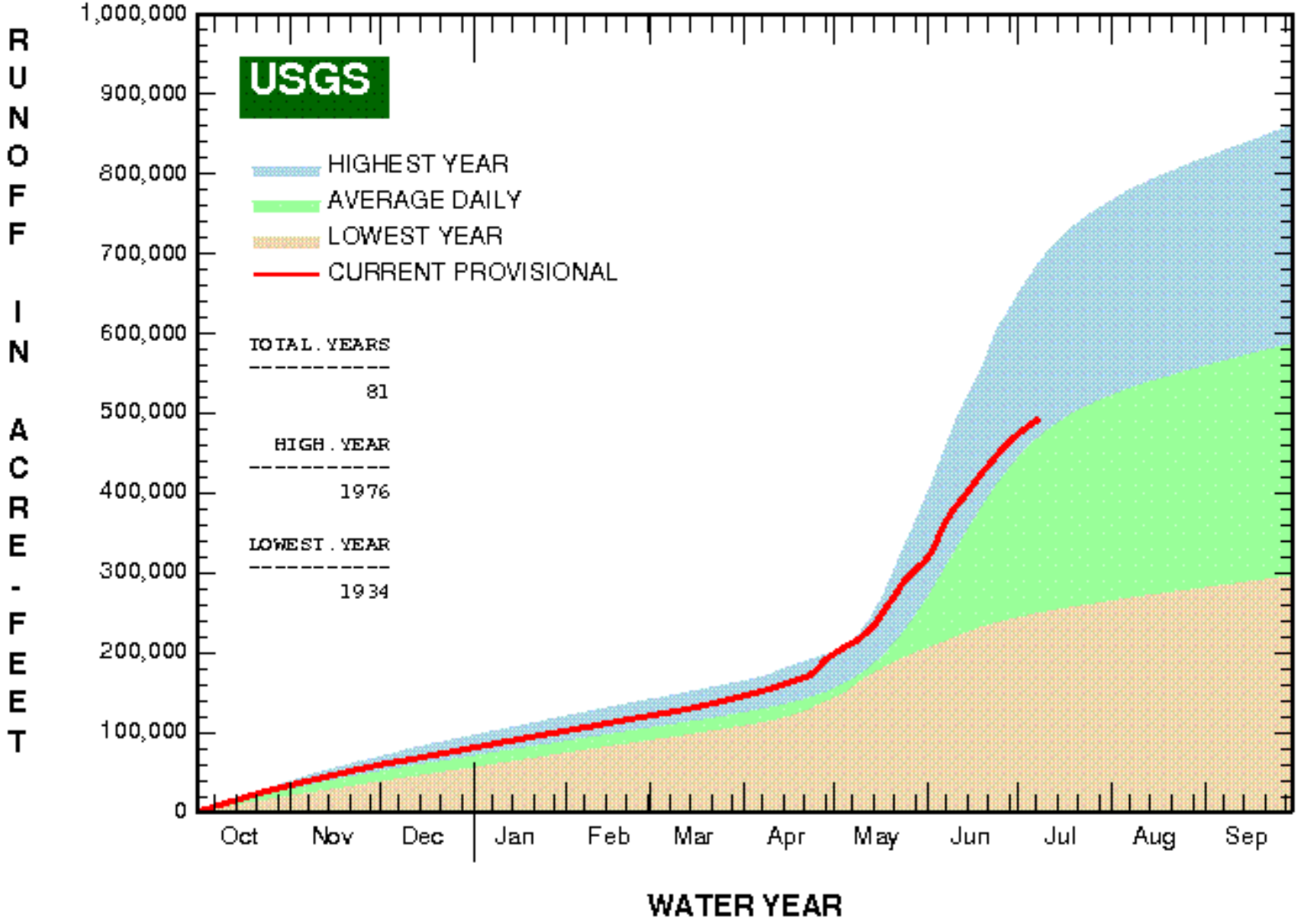


Dry Normal Wet

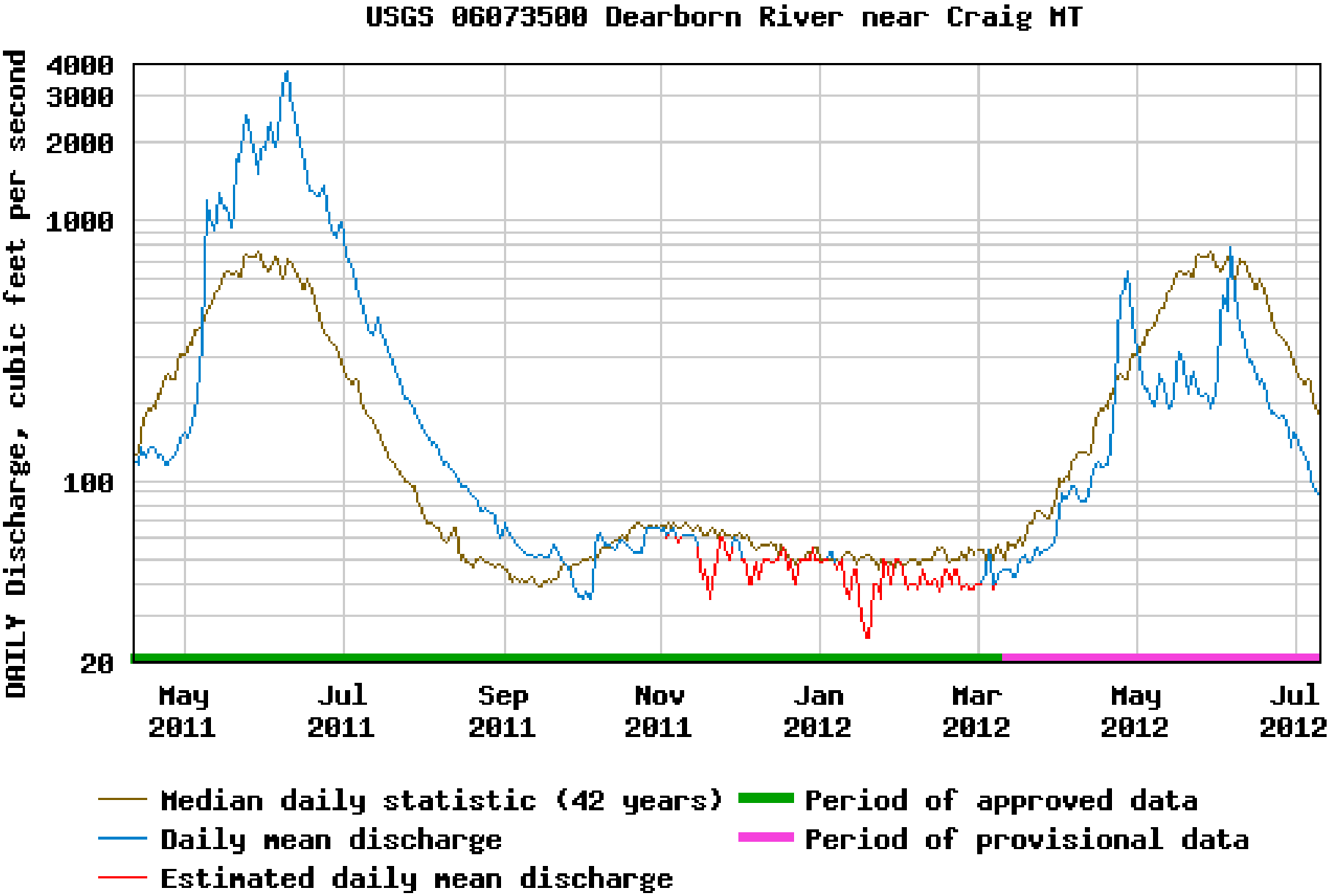
Sites With Low Streamflow

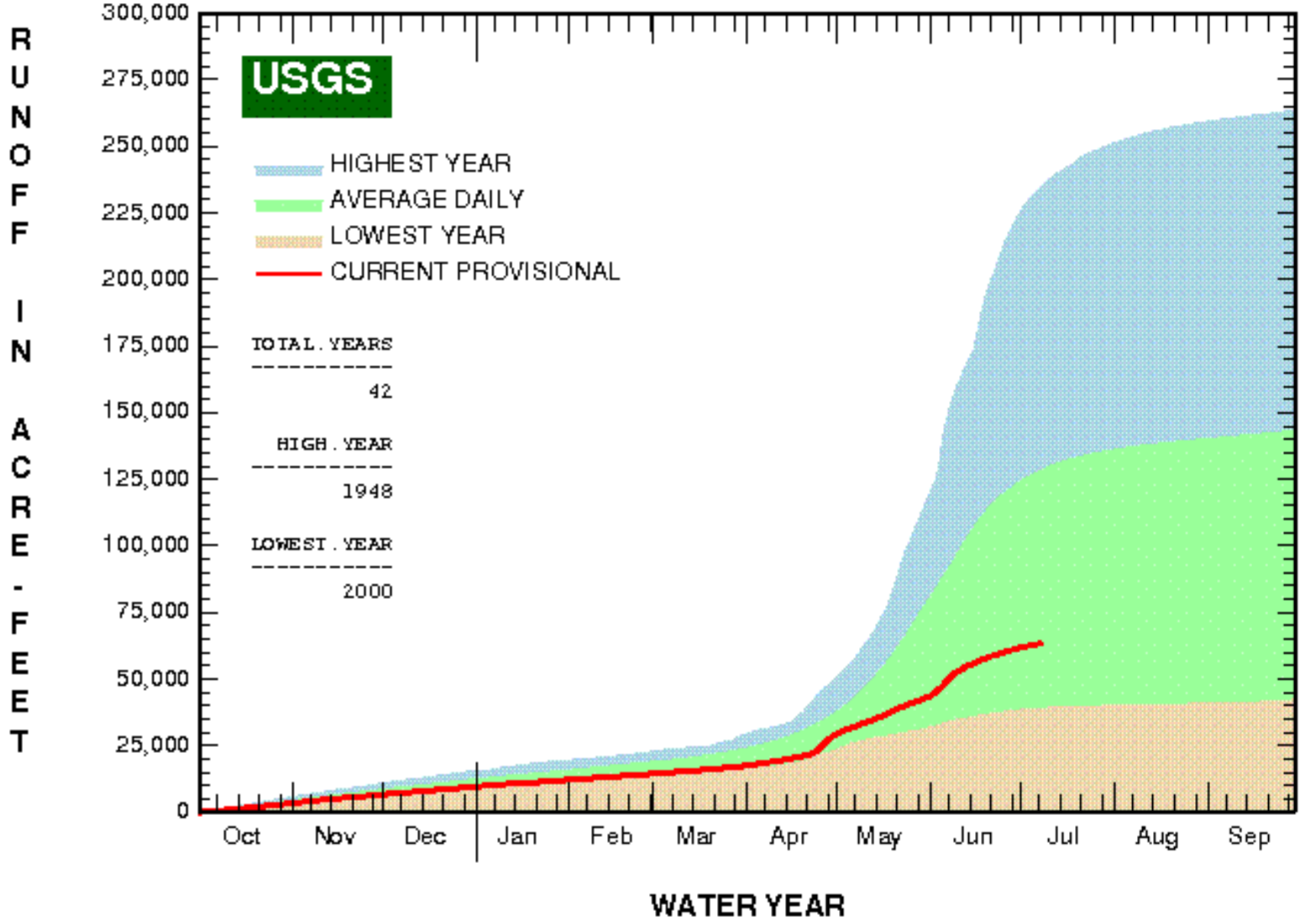
- 06035000 – Willow Creek near Harrison
- 06073500 – Dearborn River near Craig
- 06195600 – Shields River near Livingston
- 12329500 – Flint Creek at Maxville


USGS 06043500 Gallatin River near Gallatin Gateway MT
DAILY Discharge, cubic feet per second
8000
1000
200
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (81 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

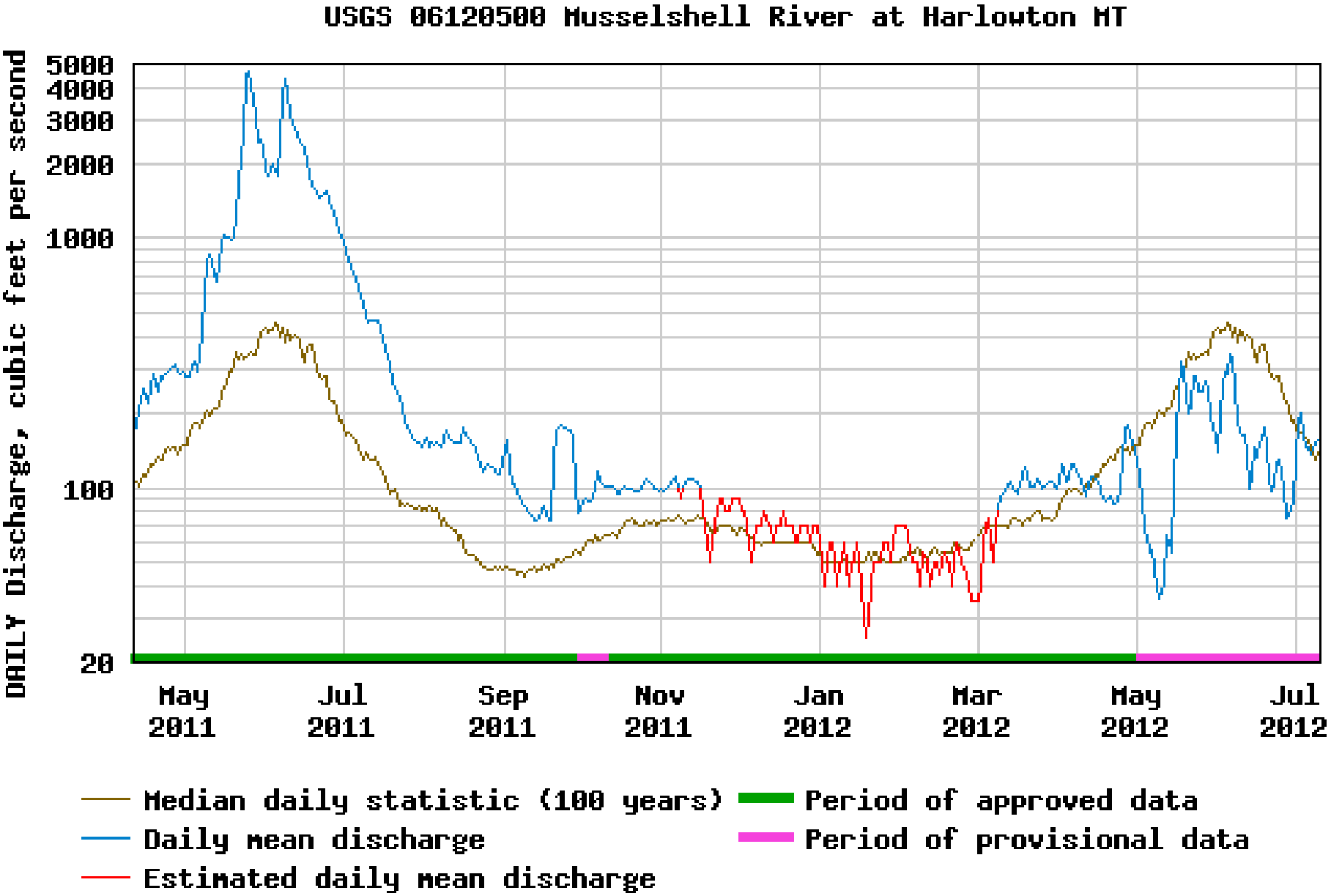


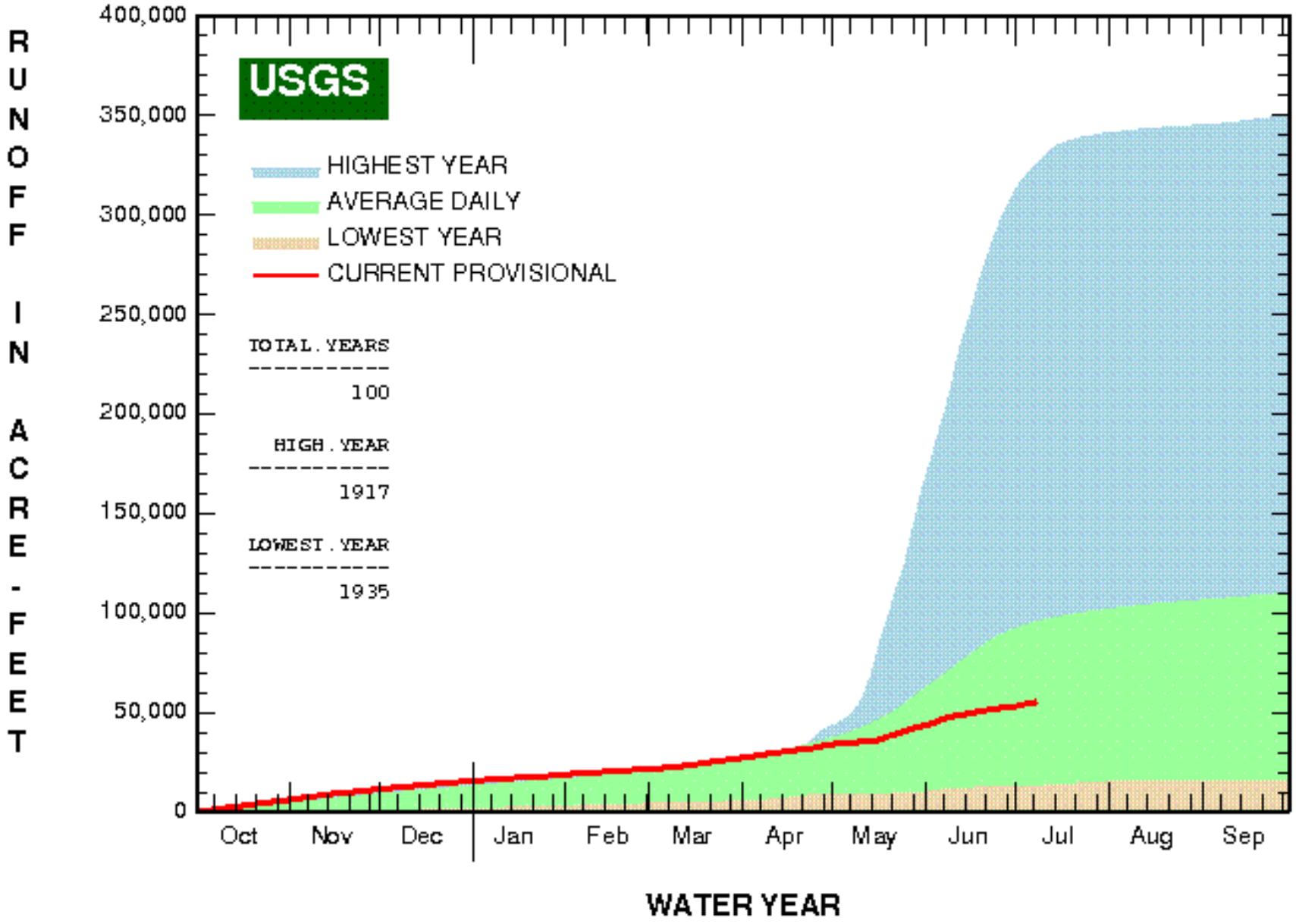
Gallatin River near Gallatin Gateway MT


USGS 06073500 Dearborn River near Craig MT
DAILY Discharge, cubic feet per second
4000
3000
2000
1000
100
20
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (42 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

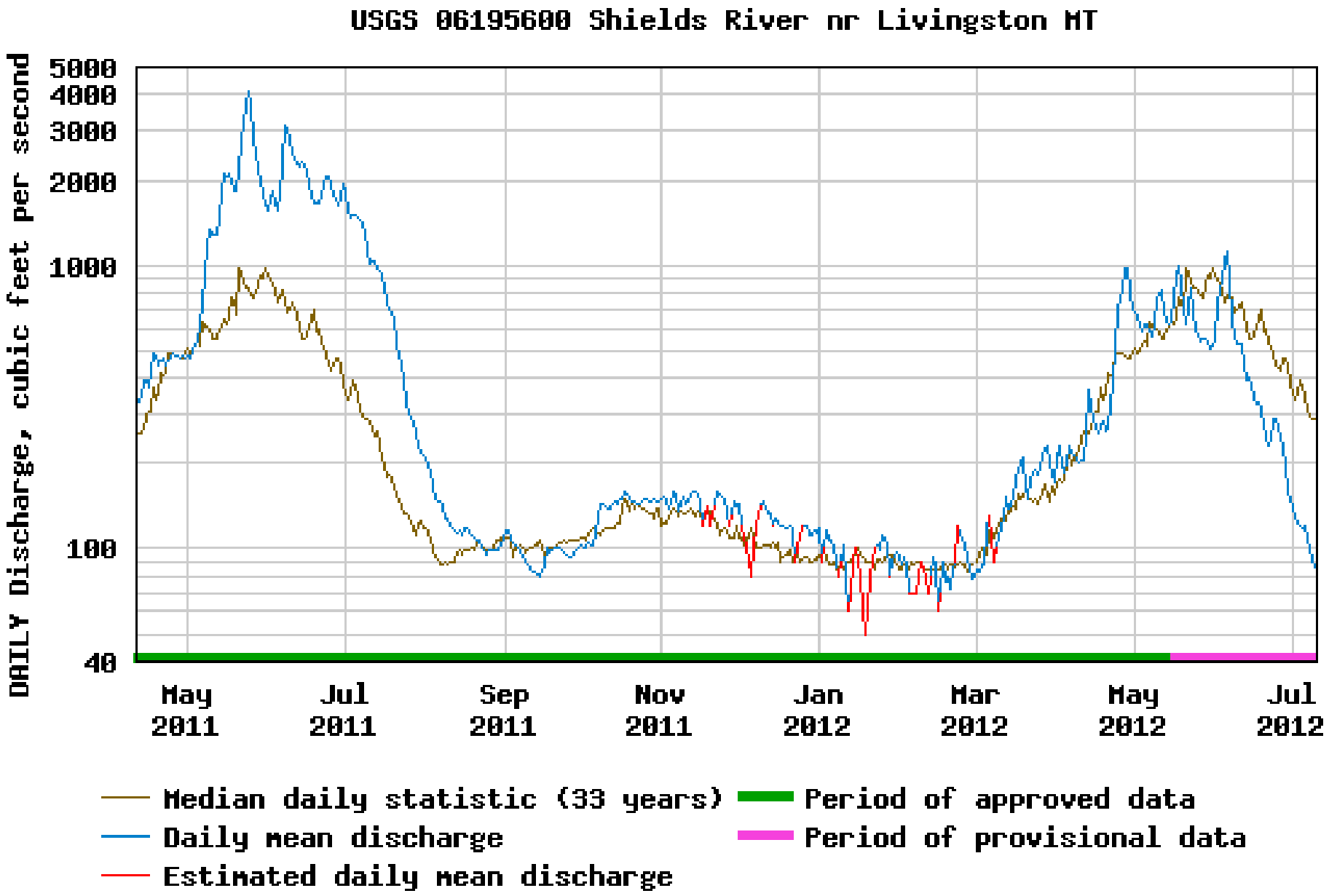


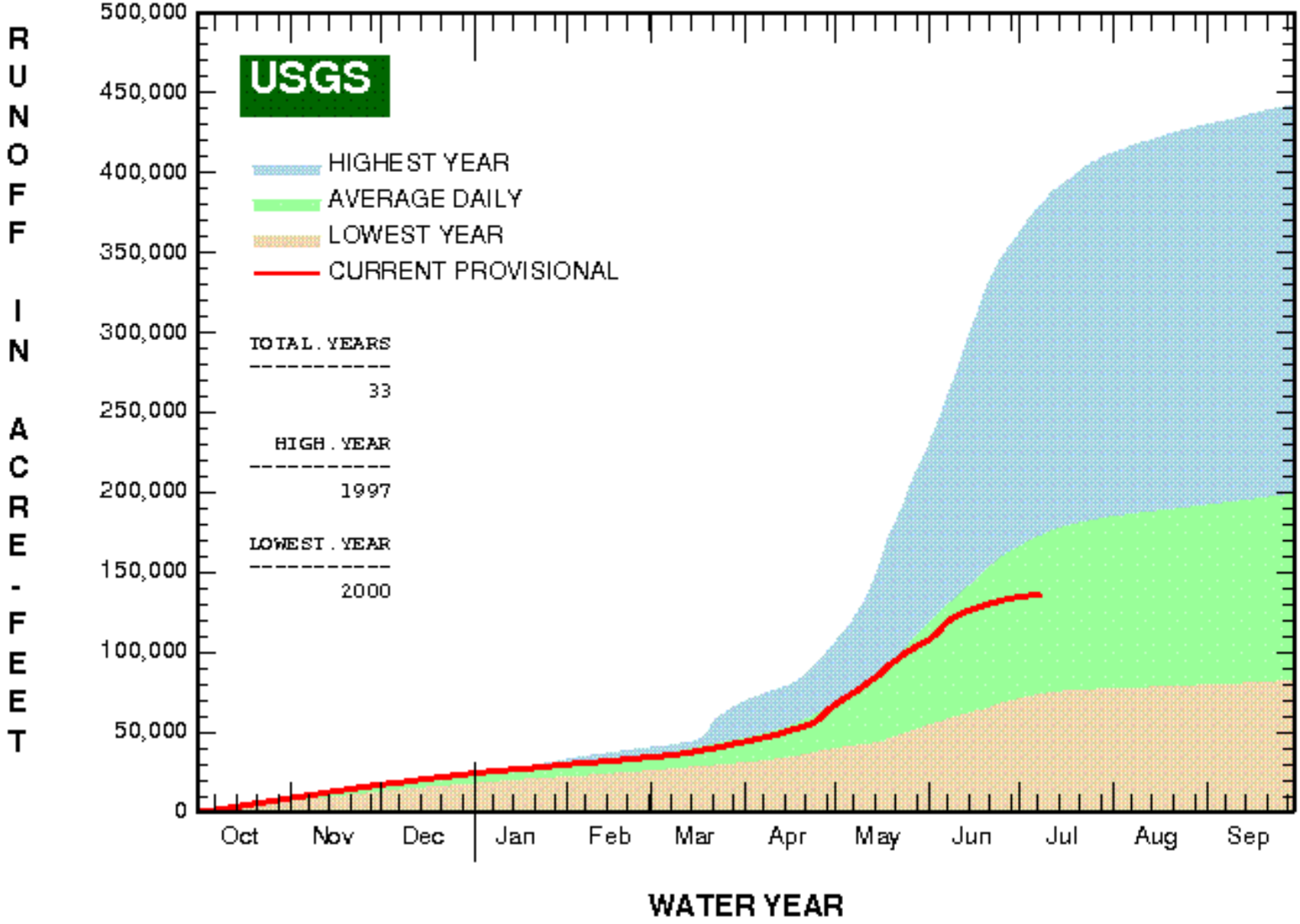
Dearborn River near Craig MT


USGS 06120500 Musselshell River at Harlowton MT
DAILY Discharge, cubic feet per second
5000
4000
3000
2000
1000
100
20
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (100 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

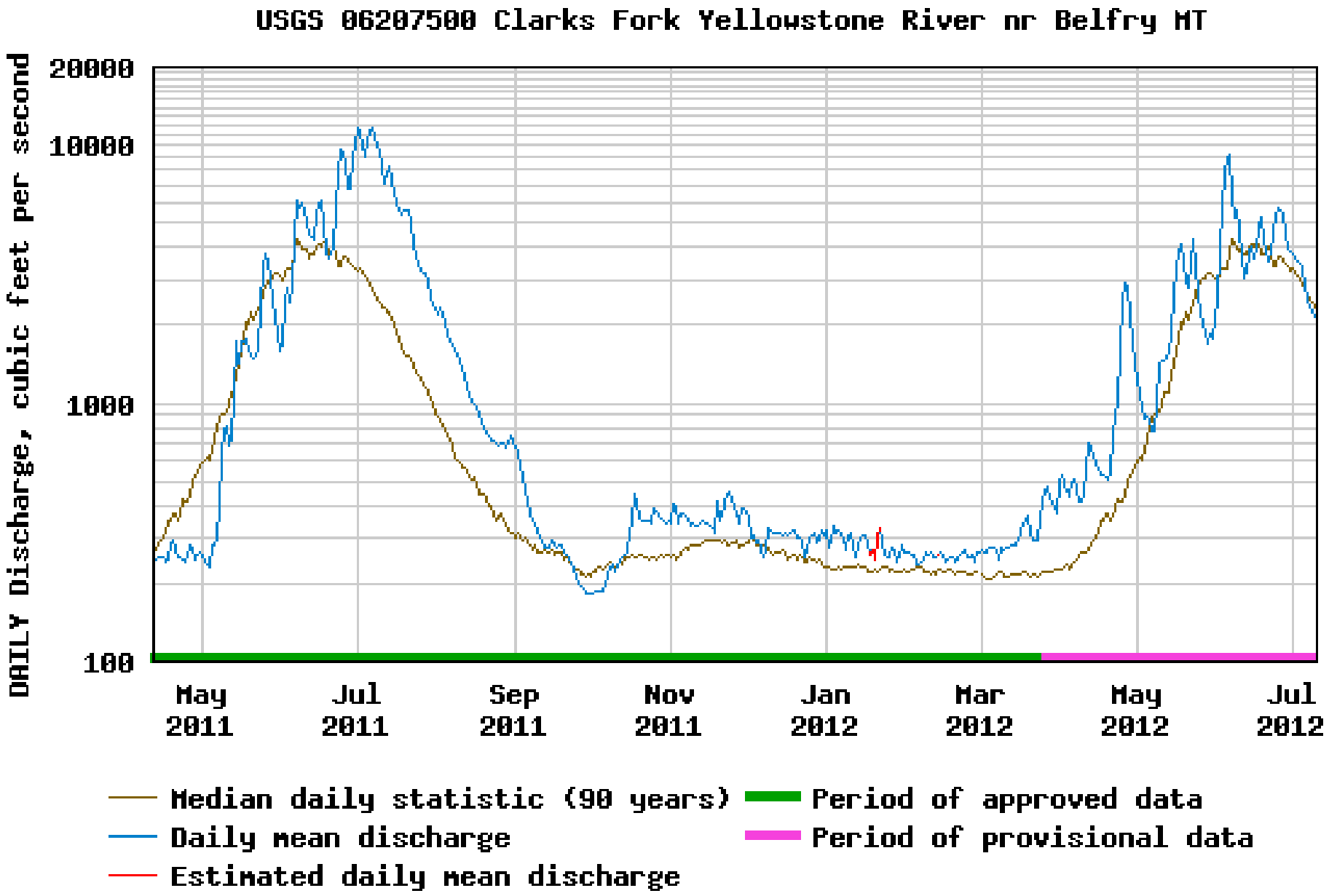


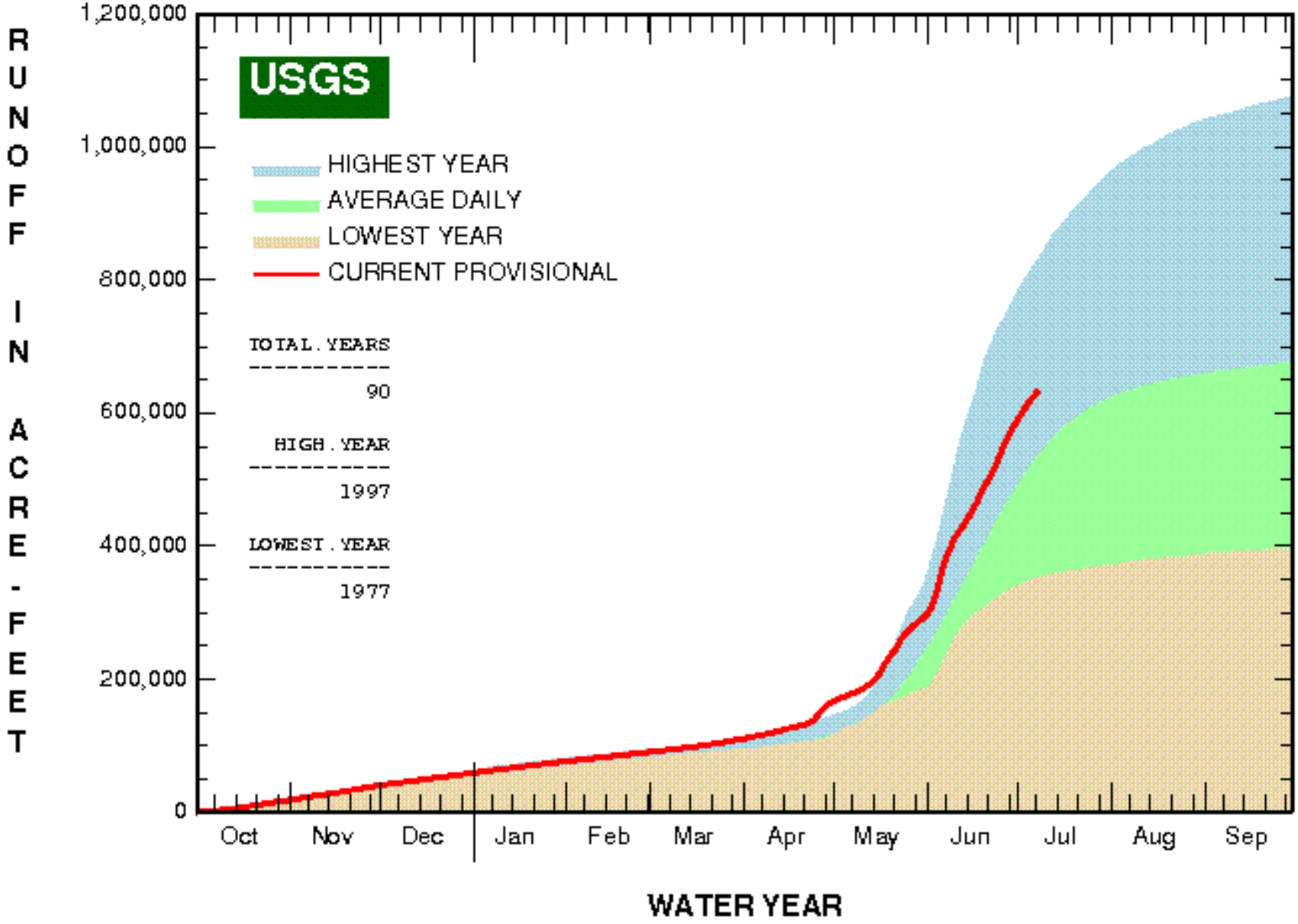
Musselshell River at Harlowton MT


USGS 06195600 Shields River nr Livingston MT
DAILY Discharge, cubic feet per second
5000
4000
3000
2000
1000
100
40
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (33 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

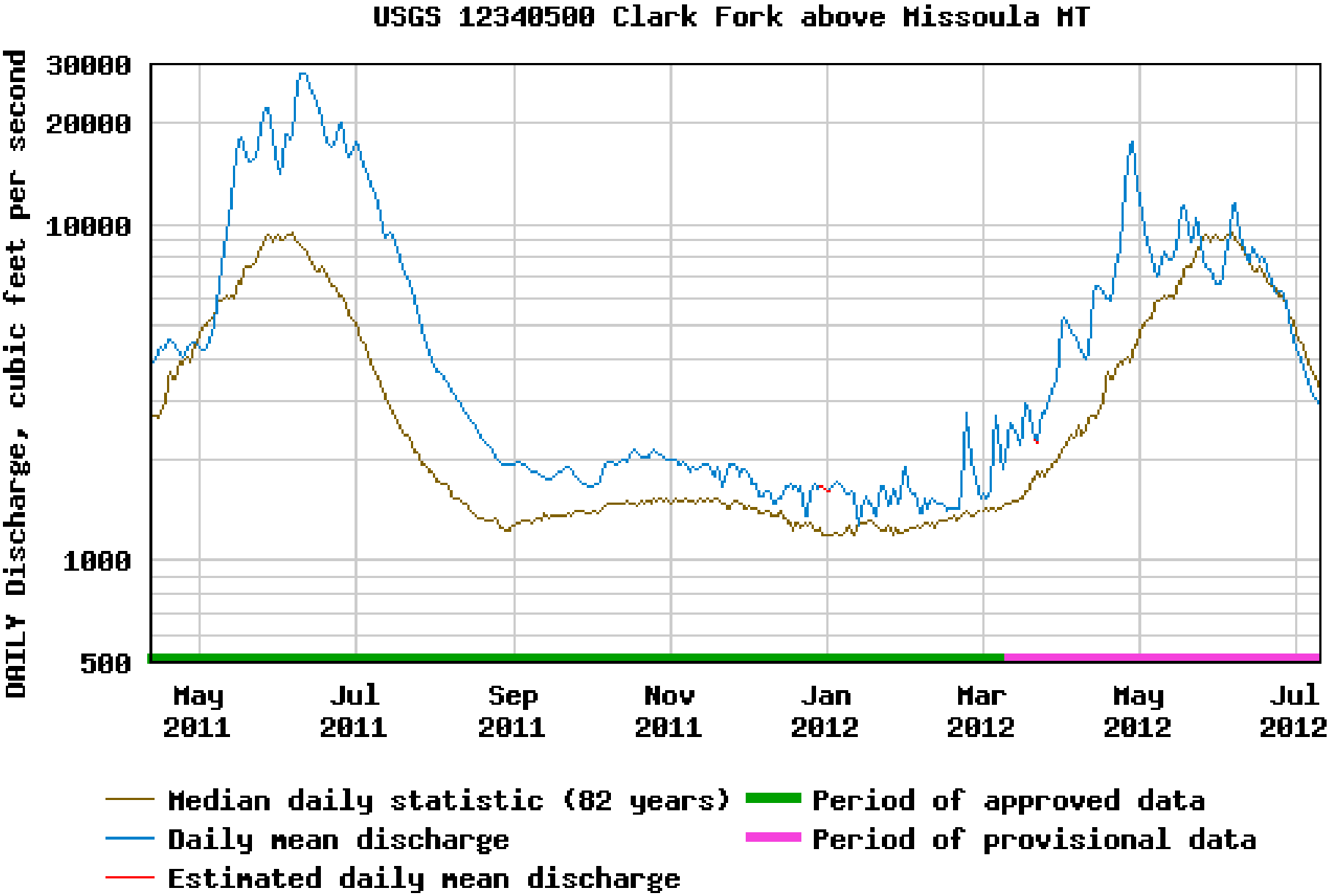


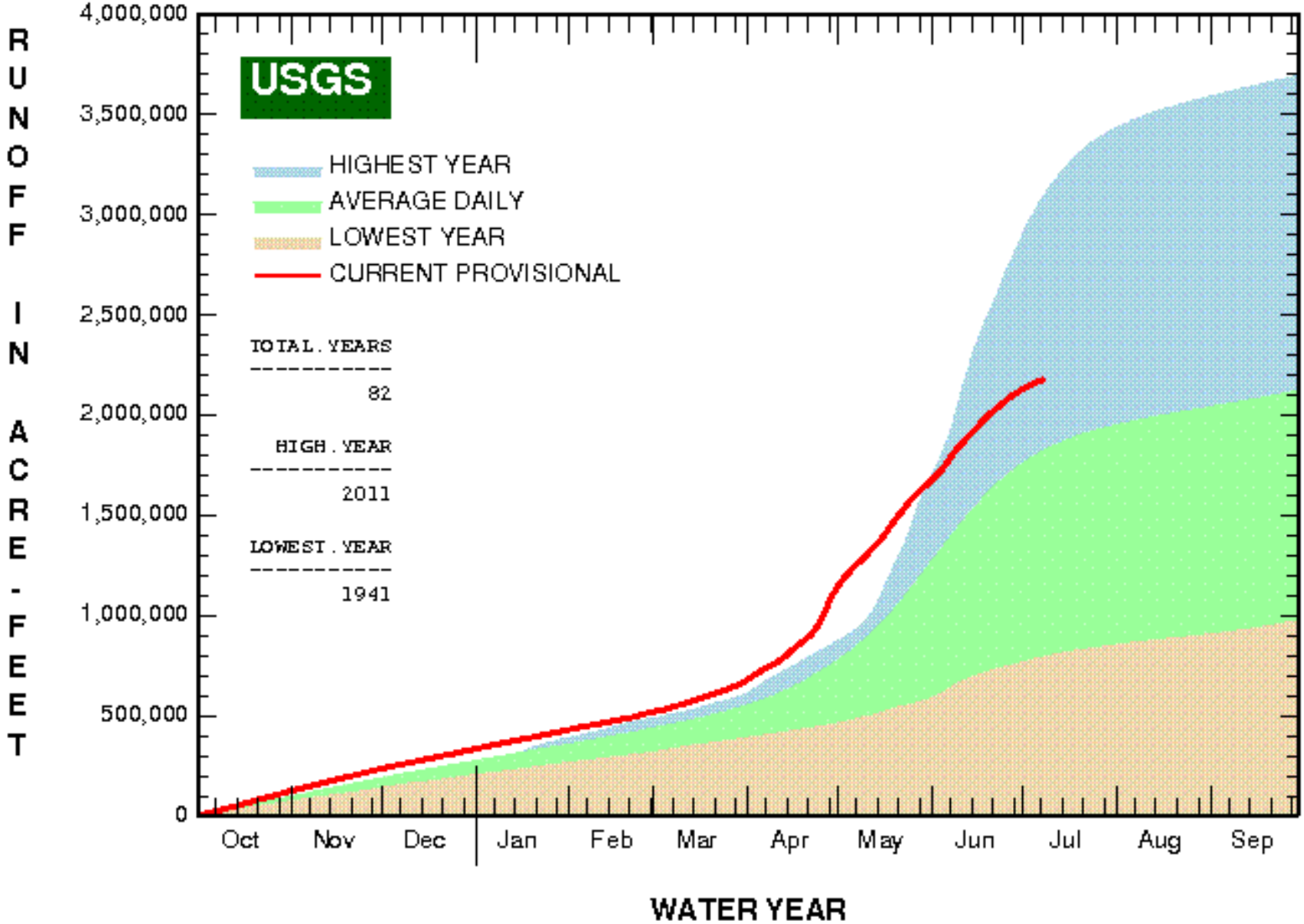
Shields River nr Livingston MT


USGS 06207500 Clarks Fork Yellowstone River nr Belfry MT
DAILY Discharge, cubic feet per second
20000
10000
1000
100
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (90 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

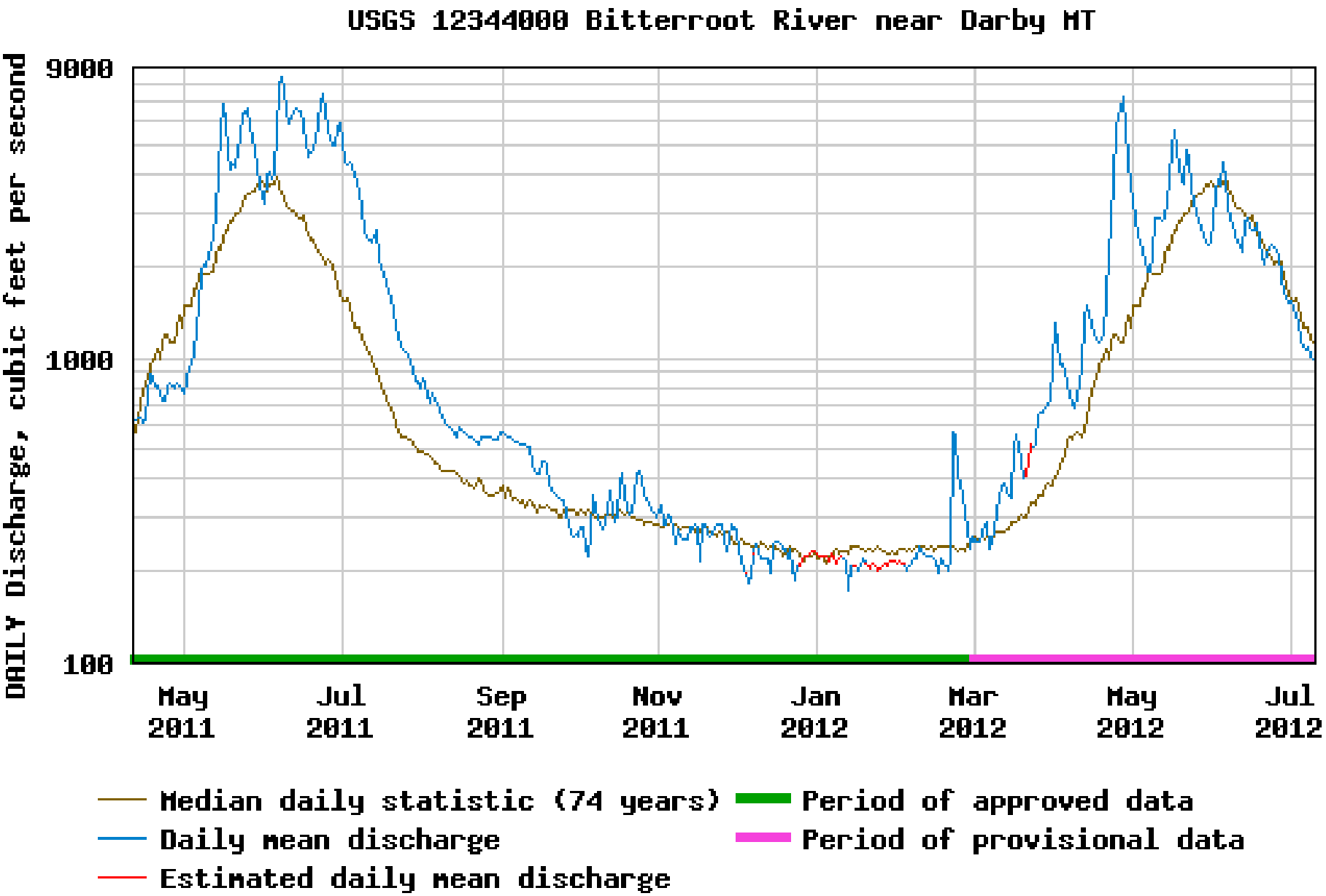


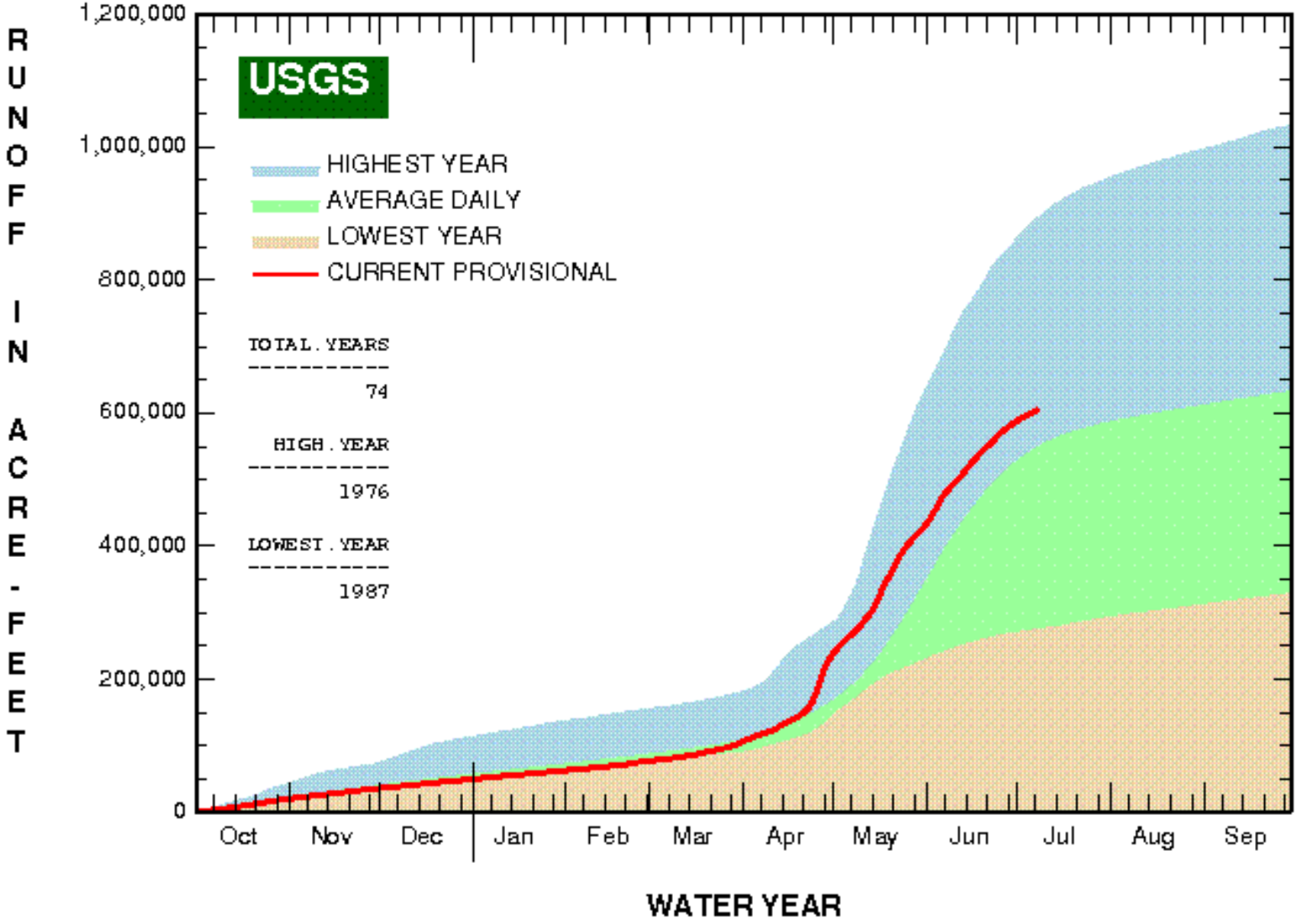
Clarks Fork Yellowstone River nr Belfry MT


USGS 12340500 Clark Fork above Missoula MT
DAILY Discharge, cubic feet per second
30000
20000
10000
1000
500
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (82 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

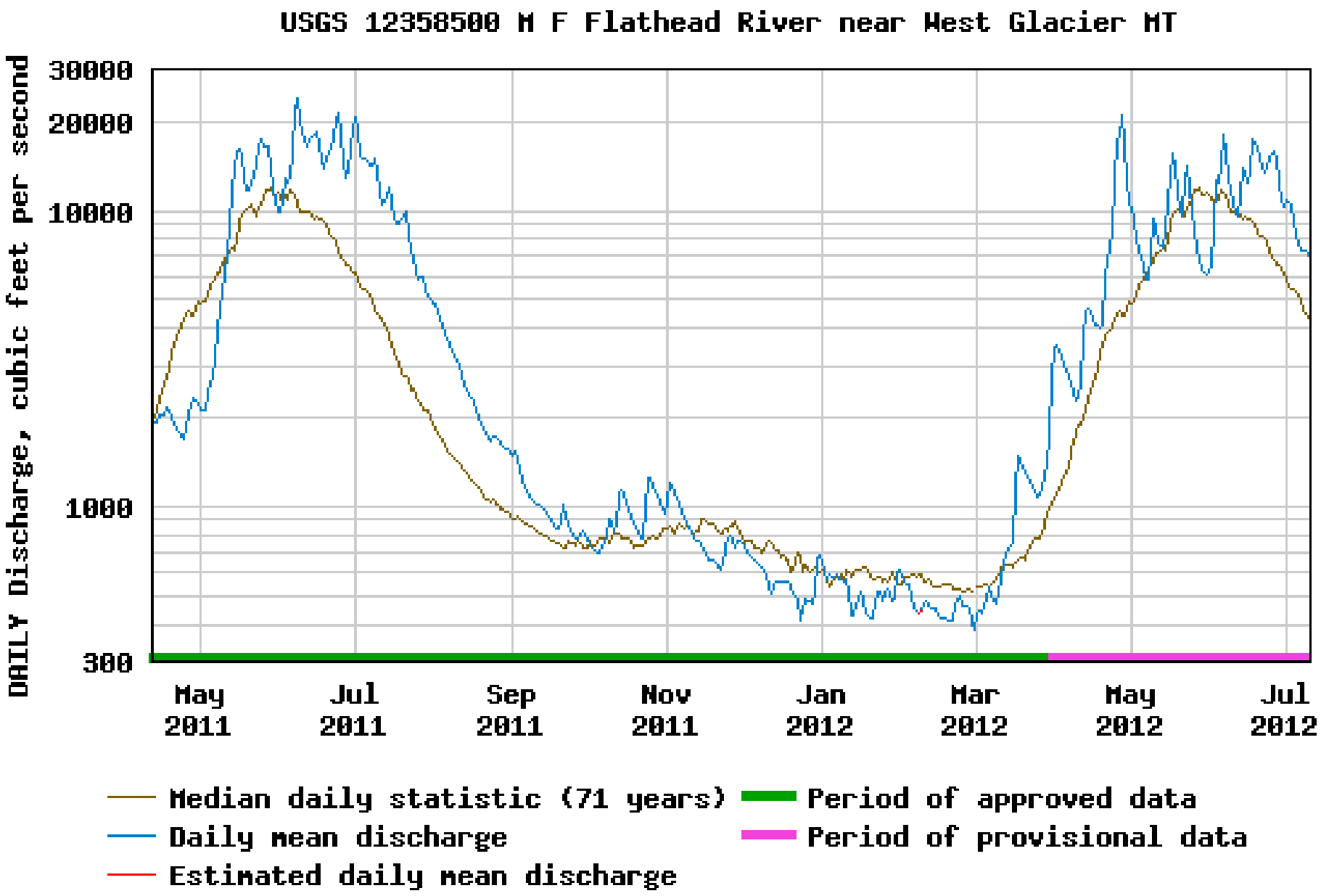


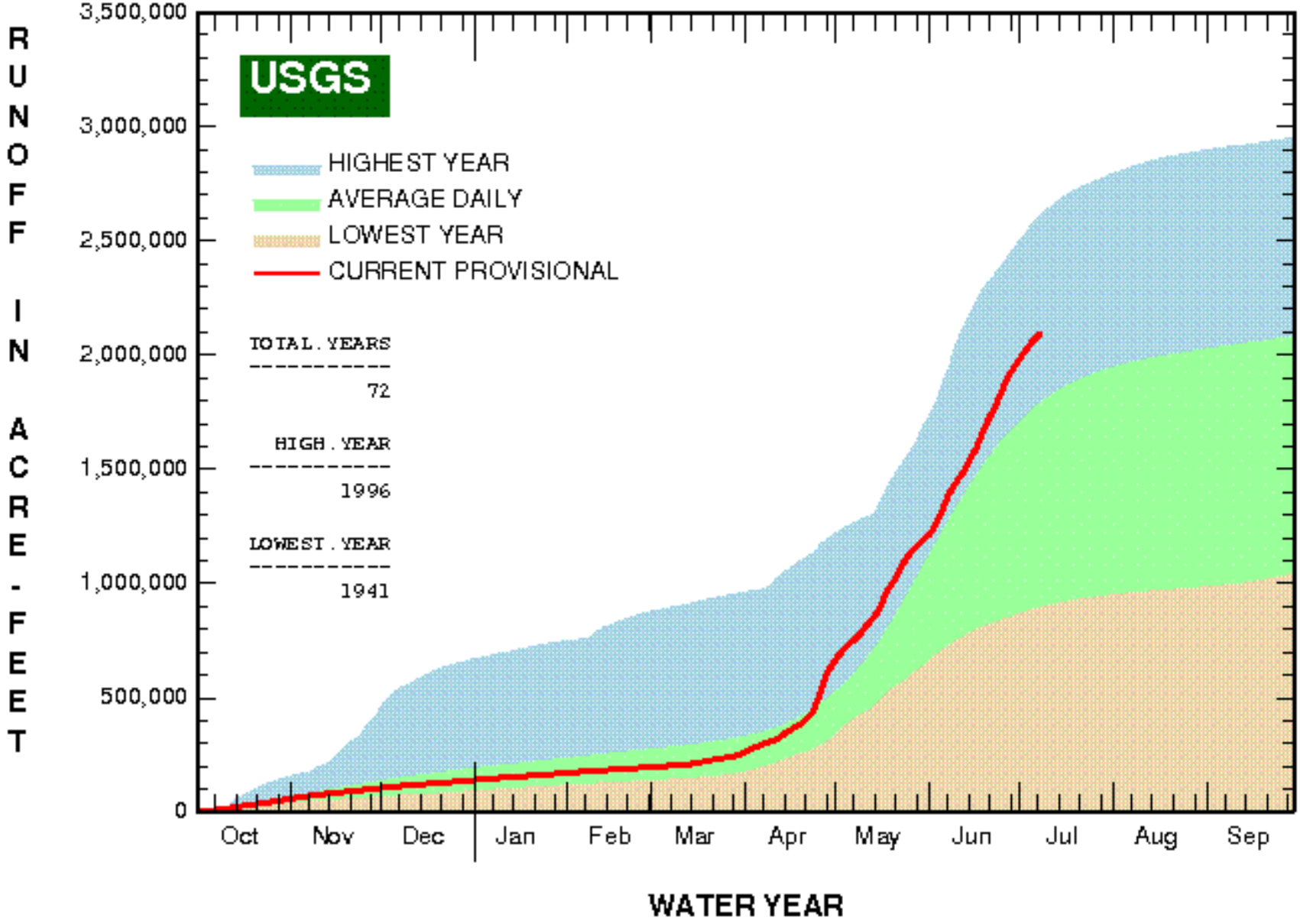
Clark Fork above Missoula MT


USGS 12344000 Bitterroot River near Darby MT
DAILY Discharge, cubic feet per second
9000
1000
100
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (74 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data

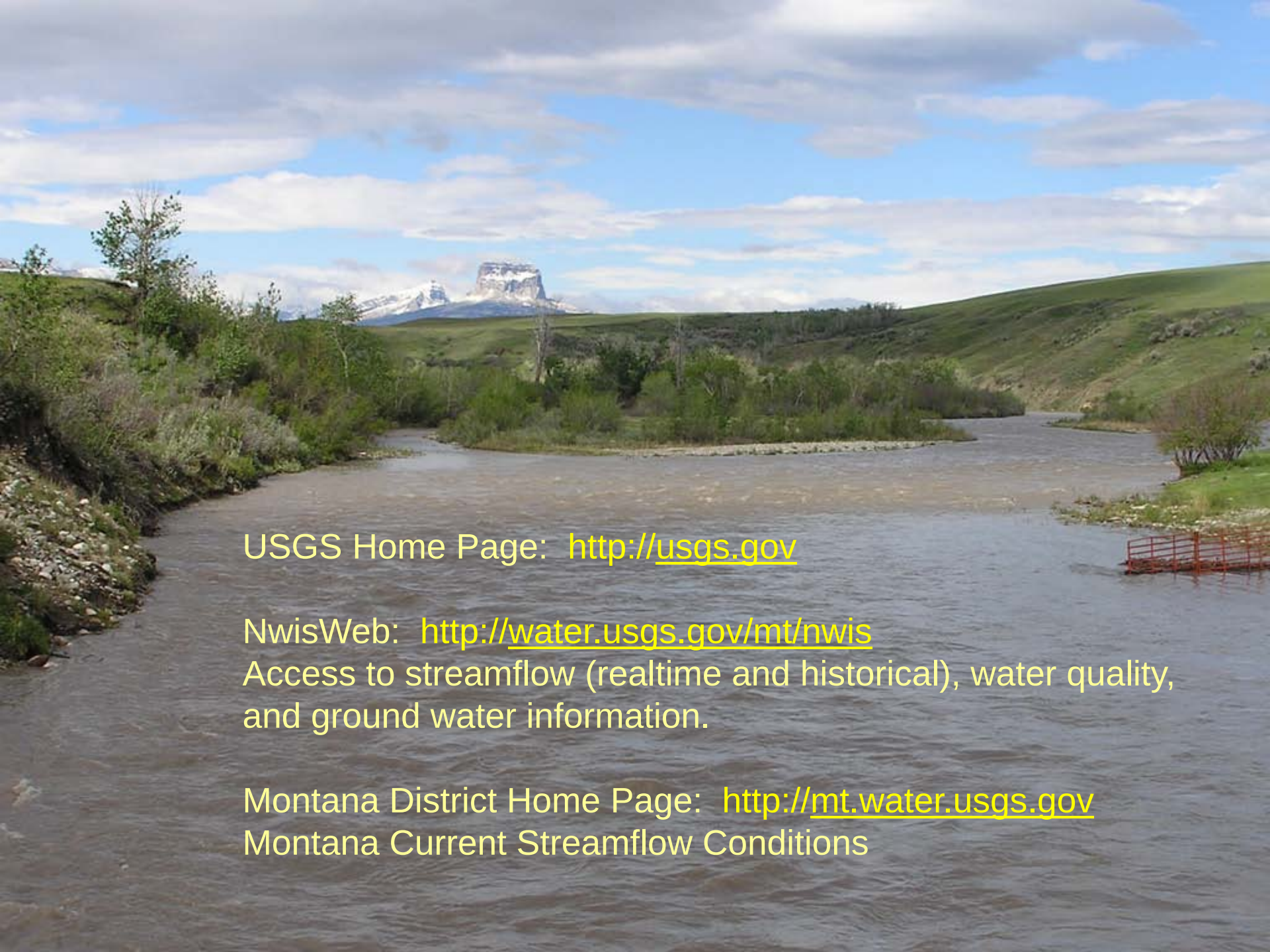


Bitterroot River near Darby MT


USGS 12358500 M F Flathead River near West Glacier MT
DAILY Discharge, cubic feet per second
30000
20000
10000
1000
300
May 2011
Jul 2011
Sep 2011
Nov 2011
Jan 2012
Mar 2012
May 2012
Jul 2012
Median daily statistic (71 years)
Daily mean discharge
Estimated daily mean discharge
Period of approved data
Period of provisional data



M F Flathead River near West Glacier MT



USGS Home Page: http://usgs.gov

NwisWeb: http://water.usgs.gov/mt/nwis
Access to streamflow (realtime and historical), water quality, and ground water information.

Montana District Home Page: http://mt.water.usgs.gov
Montana Current Streamflow Conditions