

Colorado Dust-on-Snow Program

# WY 2021 Dust Enhanced Runoff Classification

## Yampa River Watershed

as of: March 1, 2021 Update

for:

Rabbit Ears Pass Snotel, Yampa River at Steamboat Springs



| <b>CODOS and Other Selected SNOTEL Sites</b> |           |         |          |                       |
|--|-----------|---------|----------|-----------------------|
| <b>% 1981-2010 Median March 1 SWE</b>        |           |         |          |                       |
|  | Median    | Actual  | % Median | <b>CODOS</b>          |
|  | SWE       | SWE     | SWE      | <b>March 1</b>        |
|  | March 1   | March 1 | March 1  | <b>SWE</b>            |
| SNOTEL Site                                  | 1981-2010 | WY 2021 | WY 2021  | <b>Classification</b> |
| Red Mtn Pass                                 | 17.5      | 15.7    | 90%      | <b><i>Average</i></b> |
| Slumgullion                                  | 10.4      | 9.6     | 92%      | <b><i>Average</i></b> |
| Upper San Juan                               | 26.0      | 23.0    | 88%      | <b><i>Low</i></b>     |
| Wolf Creek Summit                            | 24.9      | 25.7    | 103%     | <b><i>Average</i></b> |
| Beartown                                     | 18.7      | 14.7    | 79%      | <b><i>Low</i></b>     |
| Lizard Head                                  | 12.2      | 10.4    | 85%      | <b><i>Low</i></b>     |
|  |           |         |          |                       |
| Park Cone                                    | 8.3       | 6.6     | 80%      | <b><i>Low</i></b>     |
| Schofield Pass                               | 25.2      | 19.5    | 77%      | <b><i>Low</i></b>     |
| McClure Pass                                 | 13.5      | 10.5    | 78%      | <b><i>Low</i></b>     |
| Independence Pass                            | 12.7      | 10.3    | 81%      | <b><i>Low</i></b>     |
|  |           |         |          |                       |
| Hoosier Pass                                 | 10.9      | 9.8     | 90%      | <b><i>Average</i></b> |
| Grizzly Peak                                 | 13.2      | 10.6    | 80%      | <b><i>Low</i></b>     |
| Berthoud Summit                              | 13.9      | 12.7    | 91%      | <b><i>Average</i></b> |
| Willow Creek Pass                            | 9.5       | 9.2     | 97%      | <b><i>Average</i></b> |
|  |           |         |          |                       |
| Rabbit Ears Pass                             | 19.1      | 13.8    | 72%      | <b><i>Low</i></b>     |
|  |           |         |          |                       |
| Mesa Lakes                                   | 12.7      | 8.8     | 69%      | <b><i>Low</i></b>     |

# Yampa River Watershed

Rabbit Ears Pass Snotel

|                  |          | Dry Spring | Avg Spring | Wet Spring |
|------------------|----------|------------|------------|------------|
| LOW March 1 SWE  | Min Dust |            |            |            |
|                  | Avg Dust | 2012       | 2018       |            |
|                  | Max Dust |            | 2013       | 2010       |
| AVG March 1 SWE  | Min Dust | 2007       | 2015, 2017 |            |
|                  | Avg Dust |            |            | 2019       |
|                  | Max Dust |            |            |            |
| HIGH March 1 SWE | Min Dust | 2020       |            | 2016       |
|                  | Avg Dust |            | 2014       | 2008, 2011 |
|                  | Max Dust | 2006       | 2009       |            |

| Dry Spring | Avg Spring | Wet Spring |
|------------|------------|------------|
|------------|------------|------------|

2006 2009 2008  
 2007 2013 2010  
 2012 2014 2011  
 2015 2016  
 2017  
 2018

Mar 1 SWE

1981-2010

Median Actual %

| Low SWE | Avg SWE | High SWE |
|---------|---------|----------|
|---------|---------|----------|

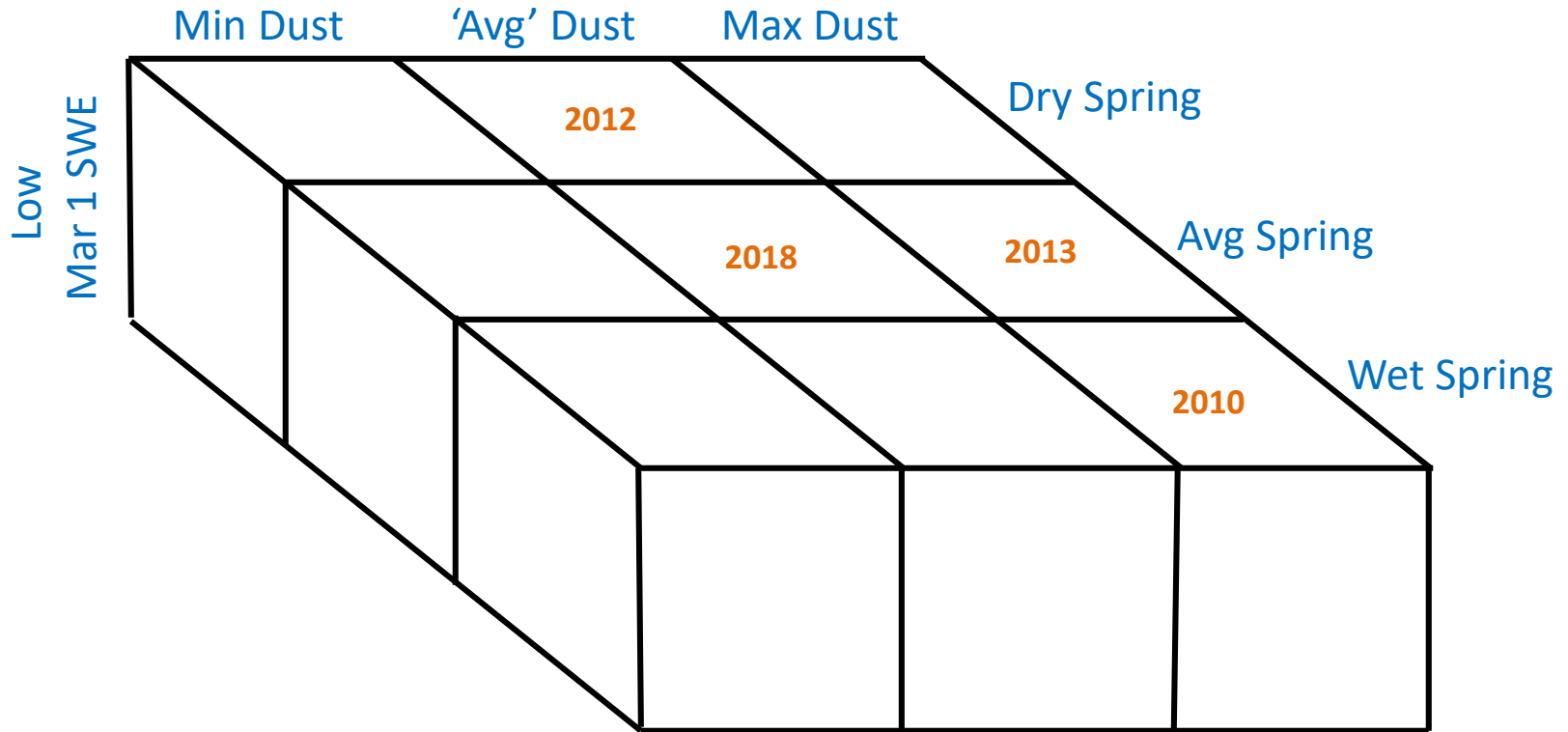
2010 2007 2006  
 2012 2015 2008  
 2013 2017 2009  
 2018 2011  
 2014  
 2016

|      |      |      |      |
|------|------|------|------|
| 2006 | 19.1 | 28.2 | 148% |
| 2007 | 19.1 | 18.4 | 96%  |
| 2008 | 19.1 | 25.0 | 131% |
| 2009 | 19.1 | 24.5 | 128% |
| 2010 | 19.1 | 11.9 | 62%  |
| 2011 | 19.1 | 29.4 | 154% |
| 2012 | 19.1 | 14.1 | 74%  |
| 2013 | 19.1 | 14.0 | 73%  |
| 2014 | 19.1 | 27.0 | 141% |
| 2015 | 19.1 | 17.5 | 92%  |
| 2016 | 19.1 | 22.8 | 119% |
| 2017 | 19.1 | 20.8 | 109% |
| 2018 | 19.1 | 13.1 | 69%  |

| Min Dust | Avg Dust | Max Dust |
|----------|----------|----------|
|----------|----------|----------|

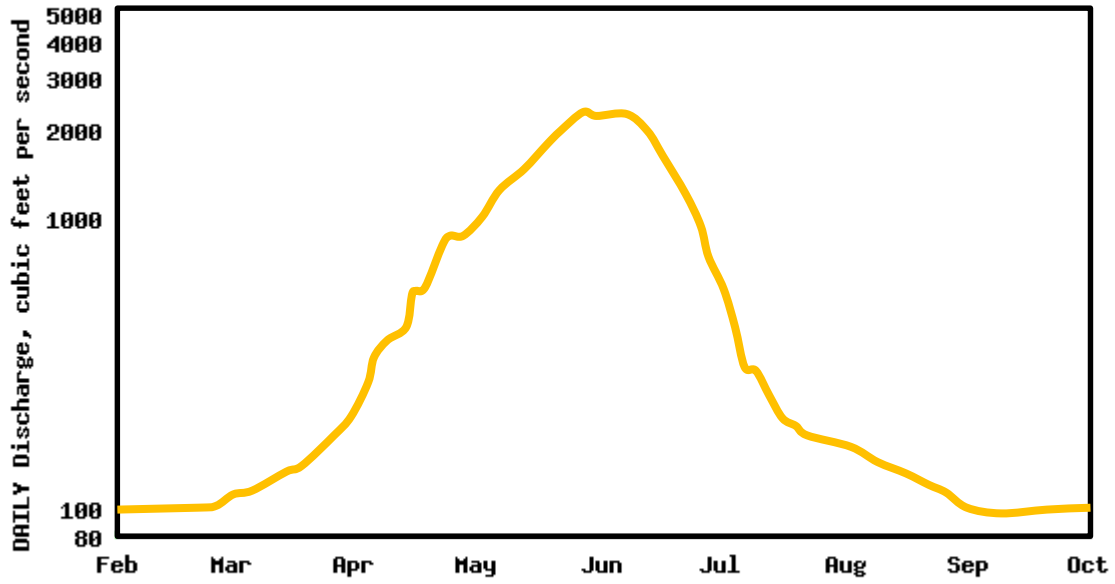
2006  
 2007  
 2008  
 2009  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018

Yampa River Watershed – Rabbit Ears Pass Snotel  
WY 2021 = Low March 1 SWE





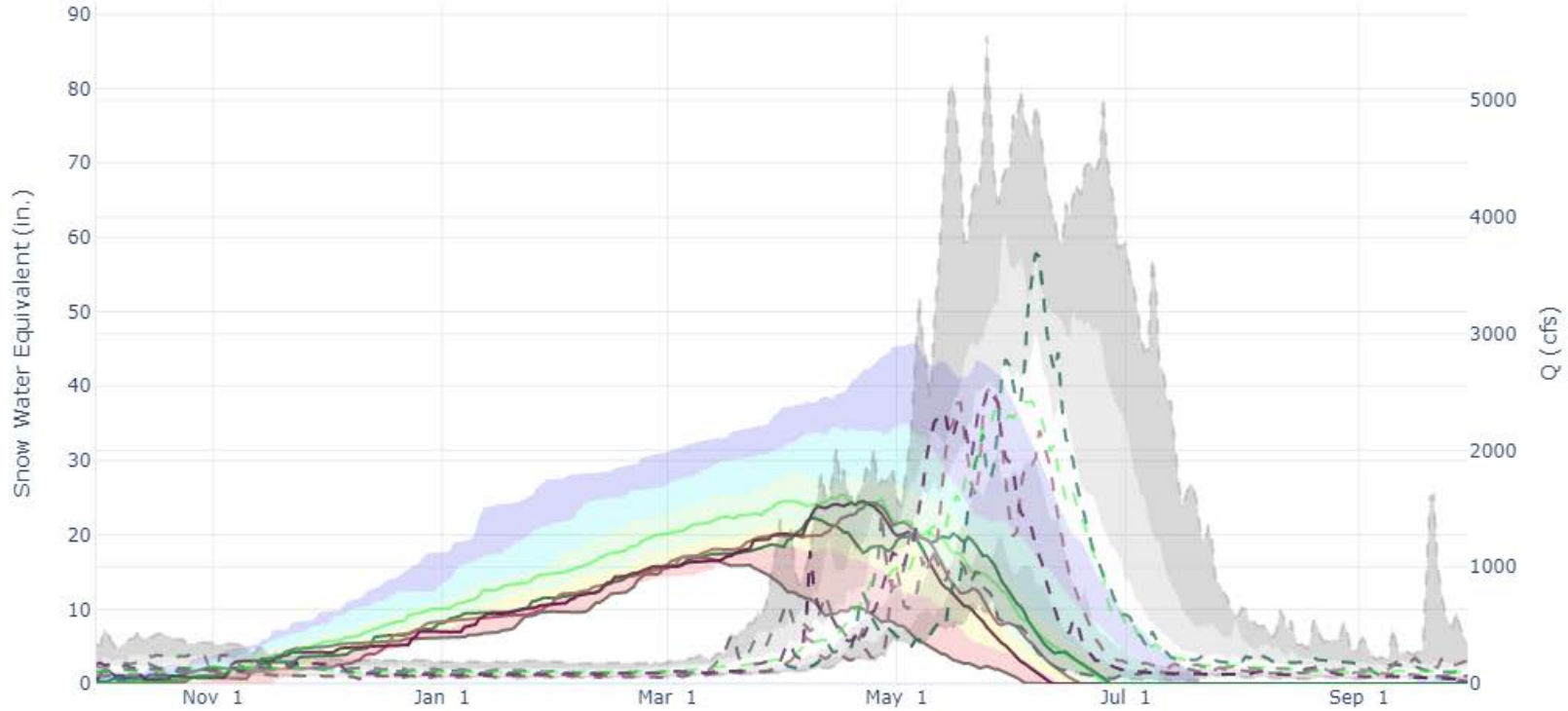
### USGS 09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO



— Median daily statistic (102 years) — Estimated daily mean discharge  
— Daily mean discharge — Period of approved data

# SWE-Q Relationship for Yampa R at Steamboat Springs

Jan Apr July WY



## Station List

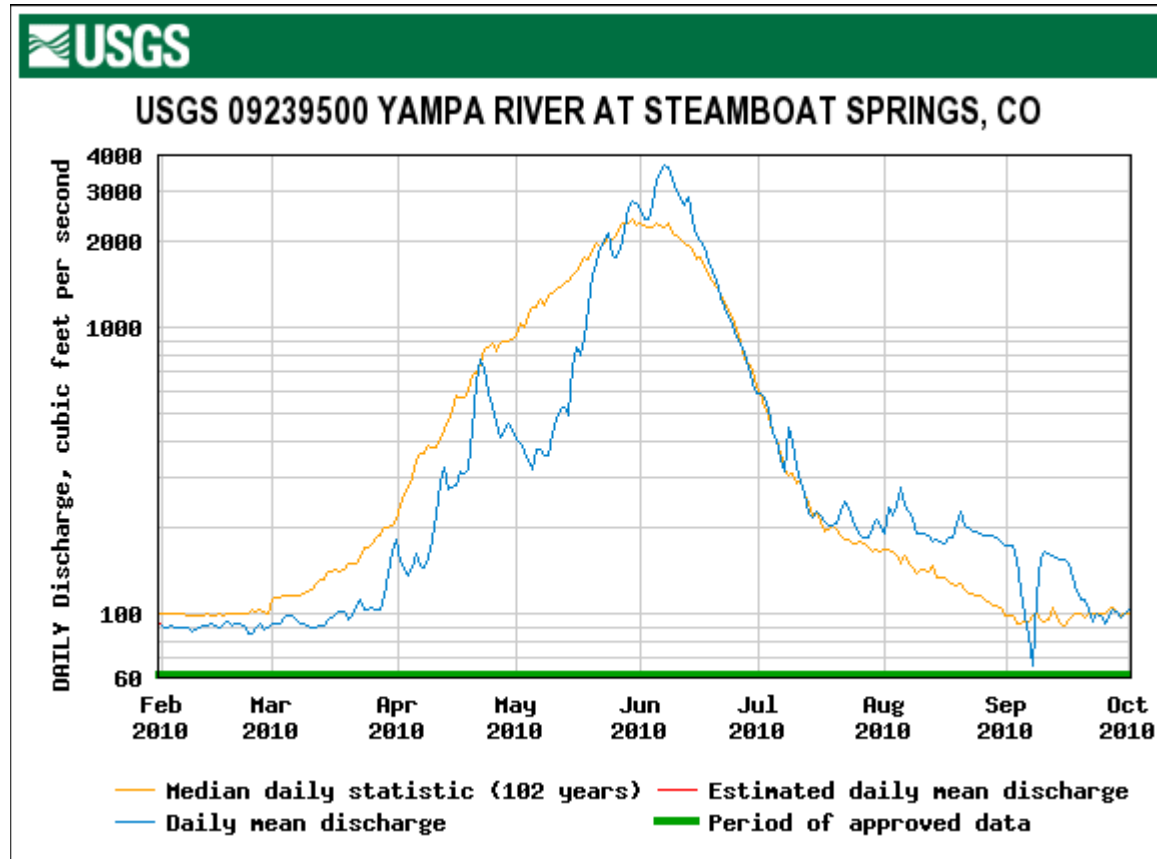
- Q Norm
- SWE Norm
- Q Stats
- SWE Stats
- 2020 (5 sites)
- 2019 (5 sites)
- 2018 (5 sites)
- 2017 (5 sites)
- 2016 (5 sites)
- 2015 (5 sites)
- 2014 (5 sites)
- 2013 (5 sites)
- 2012 (5 sites)
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- 2008 (5 sites)
- 2007 (5 sites)
- 2006 (5 sites)
- 2005 (5 sites)
- 2004 (5 sites)
- 2003 (5 sites)
- 2002 (5 sites)

Linear Scale

Log Scale

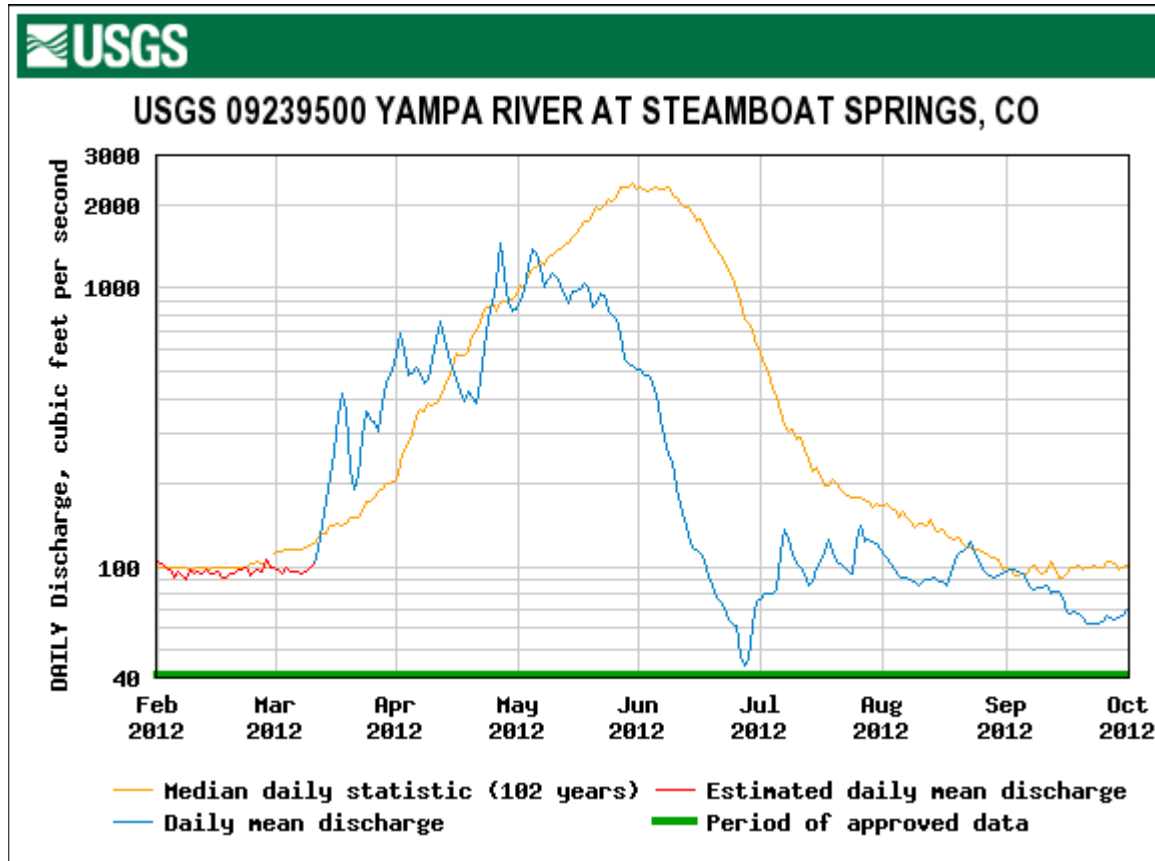
\* # of sites does not meet threshold. Data from this year will not be used in calculation of statistics

WY 2010: Low March 1 SWE, Wet Spring, Max- Dust

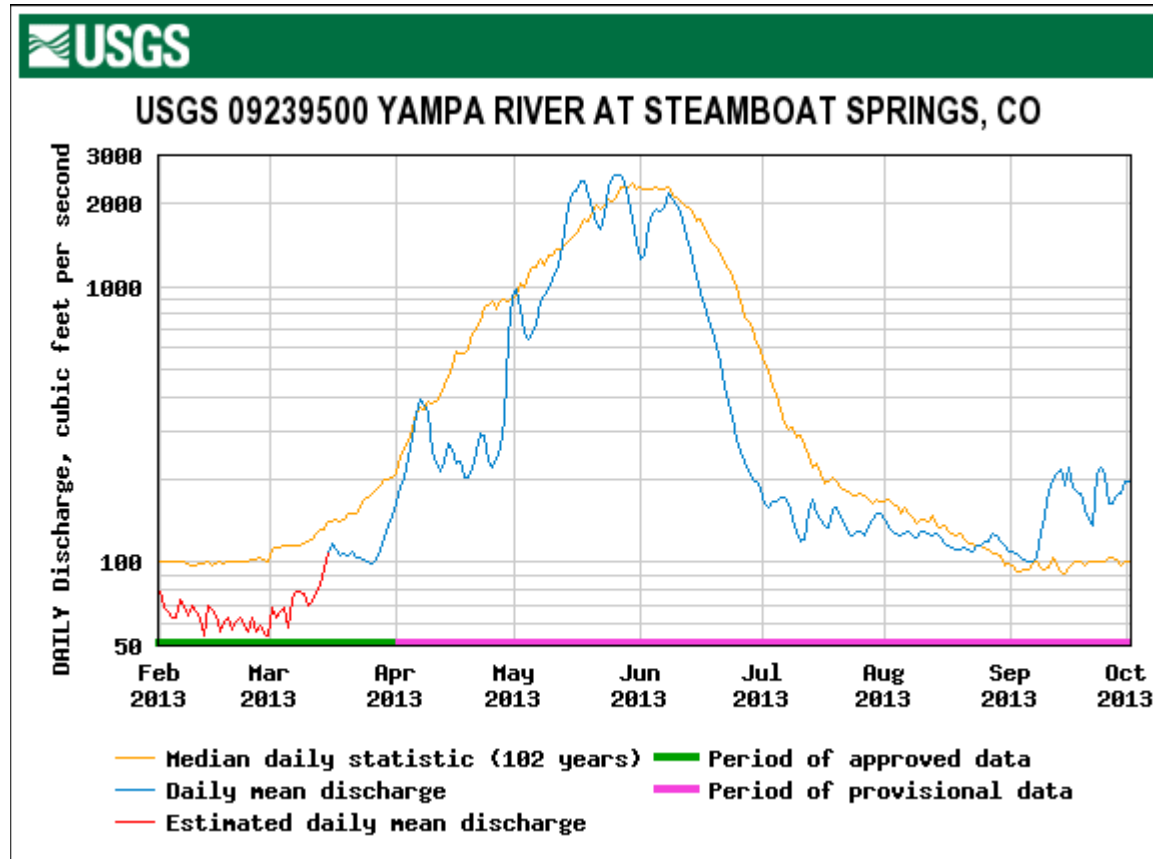




WY 2012: Low March 1 SWE, Dry Spring, Avg Dust



# WY 2013: Low March 1 SWE, Avg Spring, Max Dust



# WY 2018: Low March 1 SWE, Avg Spring, Avg Dust

