

# RECLAMATION

*Managing Water in the West*

**Aspinall Unit  
Reservoir Operations  
Spring 2009**

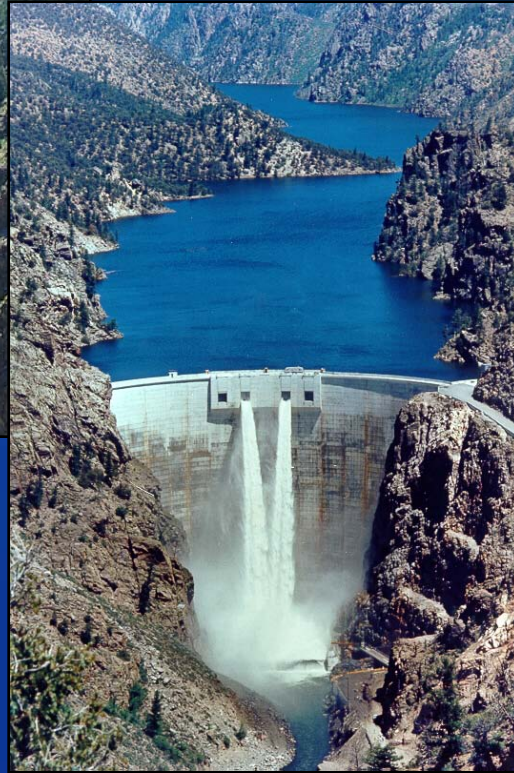


U.S. Department of the Interior  
Bureau of Reclamation

# Aspinall Unit Reservoirs



Blue Mesa



Morrow Point



Crystal

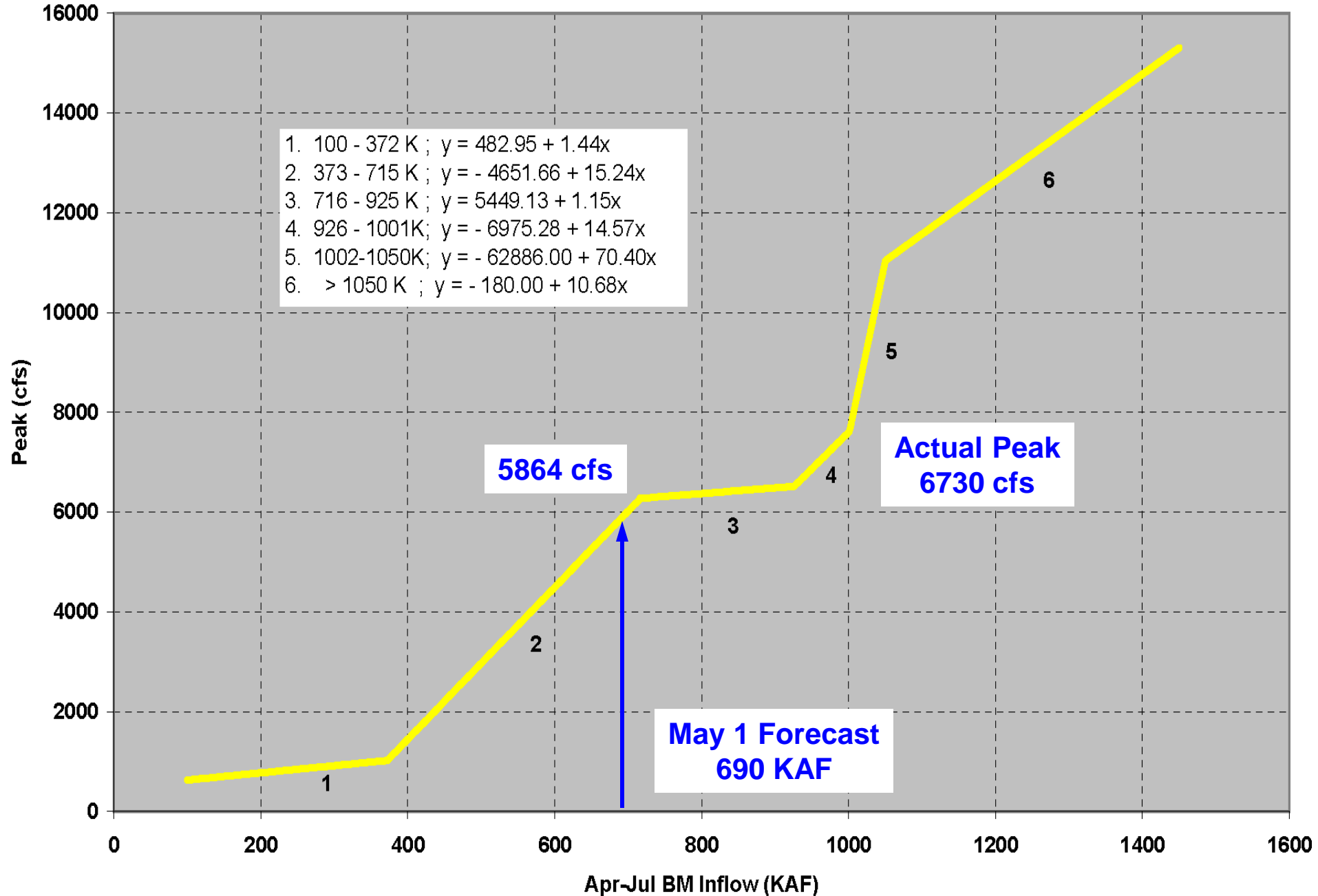
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# Gunnison River Operations

- **690,000 ac-ft Projected Inflow to Blue Mesa (April – July Forecast, 96% of Average)**
- **Black Canyon National Park Water Right**
  - 300 cfs Minimum
  - 5,864 cfs Peak
  - 650 cfs 85 Day “Shoulder” Flow
- **Flood Control**
- **Future Operation for ESA**
- **Other Project Purposes**

# Black Canyon Peak Flow Determination

based on Blue Mesa May 1 forecast



# Dust on Snow Events

- Center for Snow and Avalanche Studies
- 12 Events in Southwest Colorado
- Effect on Runoff and Operation???



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# River Forecasts

```
slcESPPeak                                delc2Peak20090407 edit.slcsppeak

COLORADO BASIN RIVER FORECASTCENTER
NATIONAL WEATHER SERVICE SALT LAKE CITY UTAH

April 07, 2009

***INTERNAL NWS PRODUCT FOR GUIDANCE PURPOSES ONLY***

Seasonal outlook for maximum flows for Gunnison - Delta

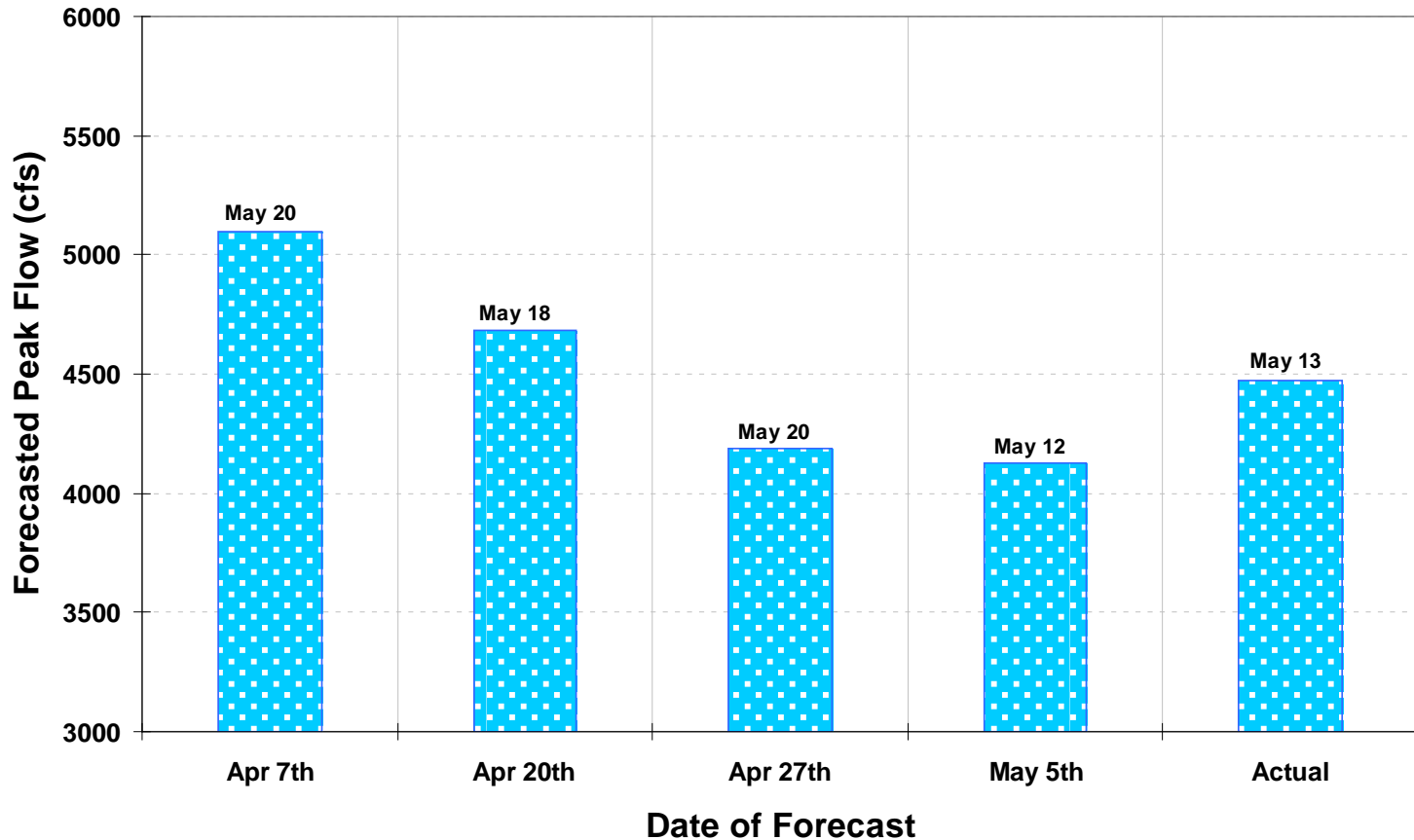
Comments:
This outlook is based on flows from ESP with model states and snow
conditions as of Apr 06

Daily Peak -- Seasonal Maximum
# ESP Forecast Information
#
# Analysis Period: 4/6/2009 - 08/1/2009 (MST)
# Forecast Parameters: River Discharge
# Forecast Interval: 4/6/2009 - 08/1/2009 (MST)
# Forecast Point: Gunnison - Delta
#
# Gunnison - Delta
# Exceedance Prob.   0.90   0.75   0.50   0.25   0.10   Units
# -----
#                   3800   4280   5100   6030   6890   CFSD

Number of Days to Peak from: 4/6/2009
#
# Gunnison - Delta
# Exceedance Prob.   0.90   0.75   0.50   0.25   0.10   Units
# -----
#                   31     36     43     50     58   DAYS
```

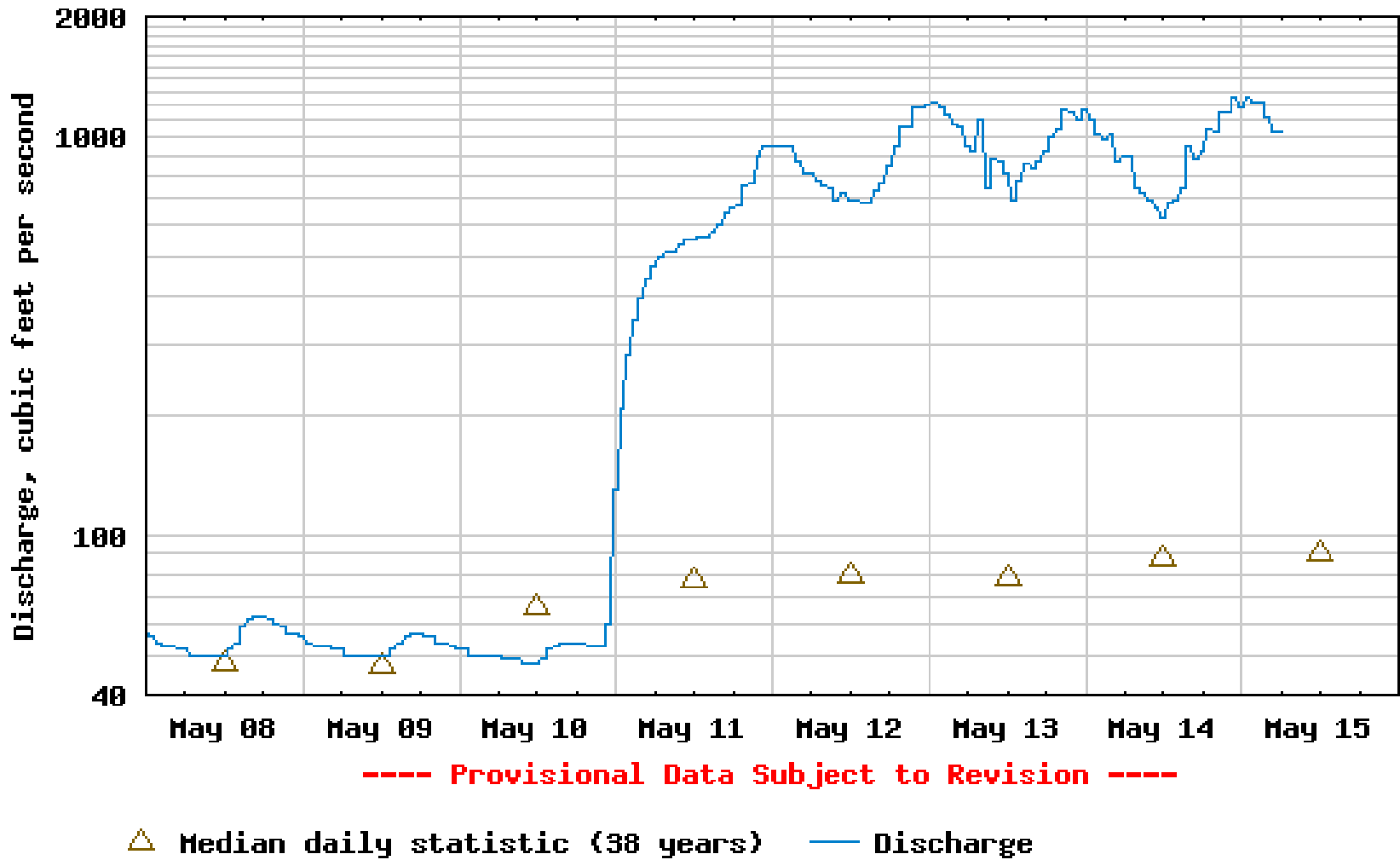
# Most Probable Peak Flows

**Contribution to Peak Flow on Gunnison R @ Delta**  
(Release from Aspinall Unit Excluded)

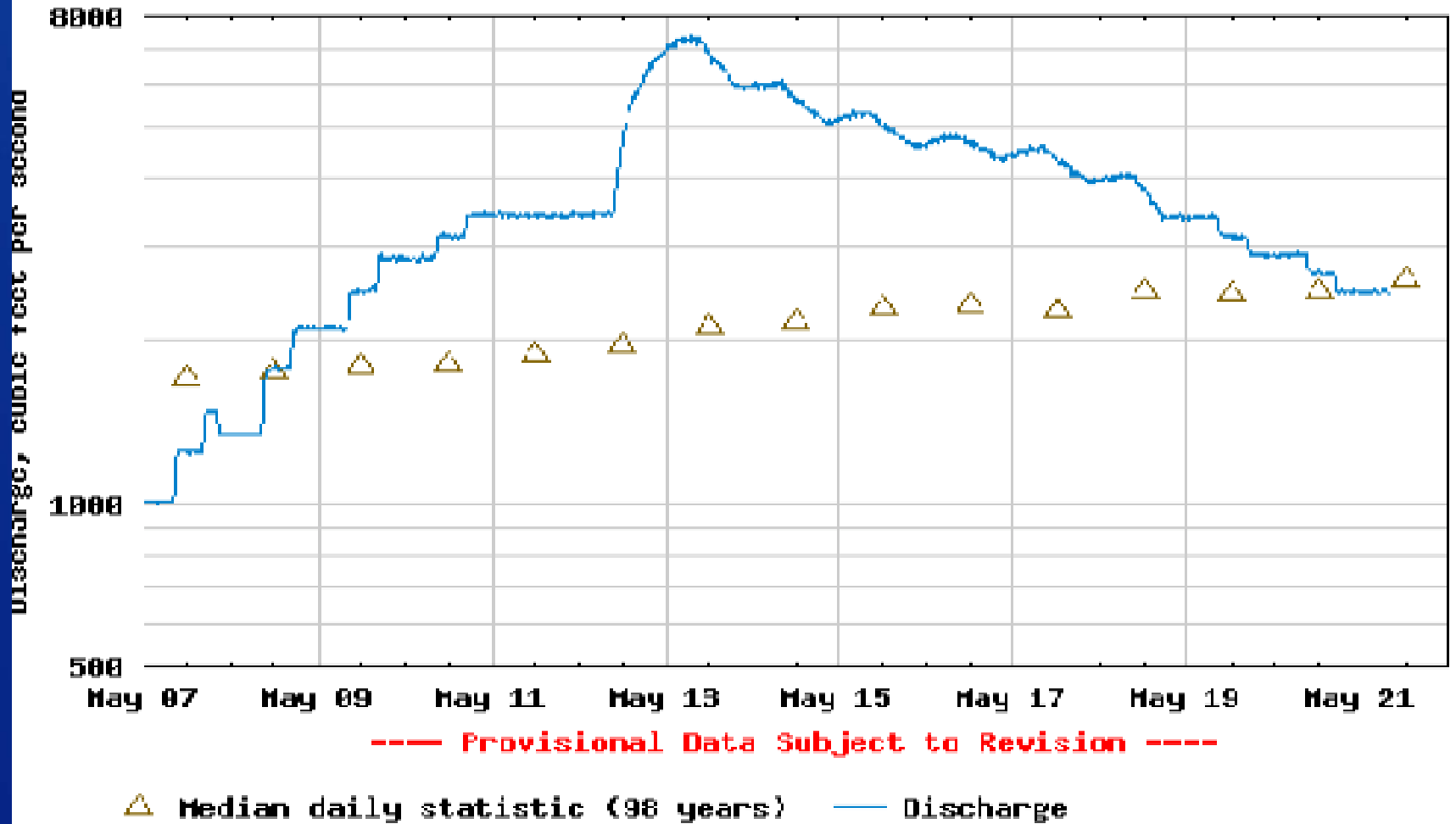


# Cimarron River Flows

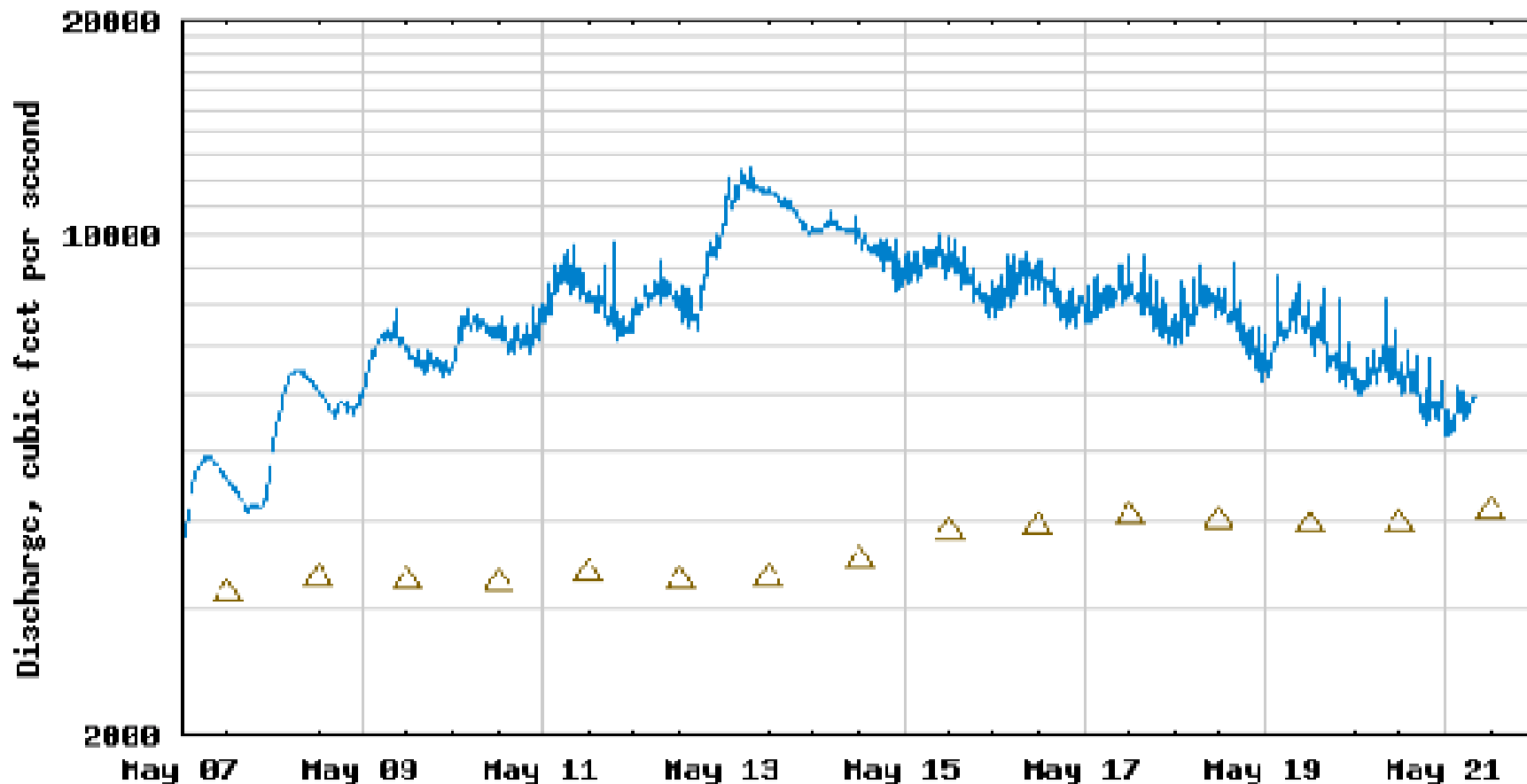
USGS 09126000 CIMARRON RIVER NEAR CIMARRON, CO.



# USGS 09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO



# USGS 09144250 GUNNISON RIVER AT DELTA, CO.



---- Provisional Data Subject to Revision ----

△ Median daily statistic (32 years) — Discharge

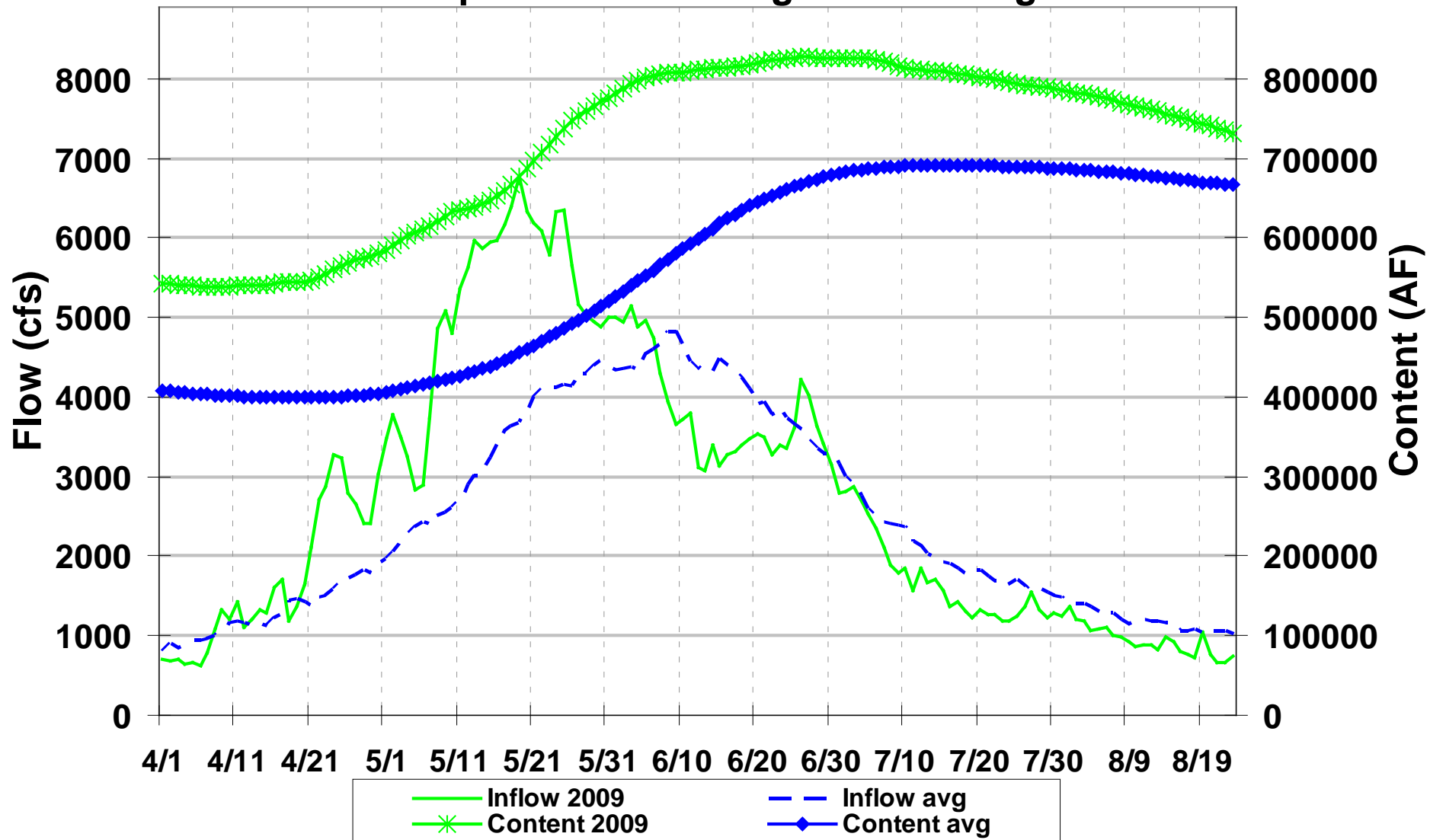
## USGS 09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO.



---- Provisional Data Subject to Revision ----

△ Median daily statistic (100 years) \* Measured discharge  
— Discharge

# April - August 2009 Blue Mesa Comparison with Long Term Average



# Questions



**Crystal Spill – May 14<sup>th</sup>, 2009; Total Release 5,400 cfs; Spill 1,200 cfs**

***“We send our clean water to Arizona and all we get back is red dirt”***

**– Carol DeAngelis, A.M. WCAO**

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