

Glen Canyon Dam Adaptive Management Work Group
Agenda Item Information
August 29-30, 2012

Agenda Item

Water Year 2013 Hydrograph

Action Requested

- ✓ Motion requested. The following motion is recommended by TWG. However, no motion is officially made unless and until an AMWG member makes the motion in accordance with the AMWG Operating Procedures.

AMWG recommends to the Secretary of the Interior his approval of the DOI-DOE Proposed Hydrograph for Water Year 2013 as follows:

- Monthly Release Volumes will be adjusted each month based on the most current forecast of the annual release required by the 2007 Interim Guidelines.
- Monthly Release Volumes are anticipated to vary within the targets identified for each month as set forth below. This monthly operational flexibility will be used for existing power production operations under the Modified Low Fluctuating Flow (MLFF) alternative selected by the 1996 ROD and contained in the 1995 FEIS. The targeted operation will also be adjusted as necessary to accommodate a targeted release volume for the month of August 2013 based on the schedule below:

January: August 2013 Volume target set to greater of 800 kaf or 10% remaining annual release volume.

February: August 2013 Volume target set to greater of 800 kaf or 10% remaining annual release volume.

March: August 2013 Volume target set to greater of 800 kaf or 12% remaining annual release volume.

April: August 2013 Volume target set to greater of 800 kaf or 15% remaining annual release volume.

May: August 2013 Volume target set to greater of 800 kaf or 20% remaining annual release volume.

June: August 2013 Volume target set to greater of 800 kaf or 25% remaining annual release volume.

July: August 2013 Volume target set to greater of 800 kaf or 40% remaining annual release volume.

August: Release volume established as 100% of remaining annual release volume (release could be less than 800 kaf in some cases).

Remaining Annual Release Volume - will be computed as the projected WY2013 annual release volume pursuant to the Interim Guidelines less volume already released in WY2013 less the September 2013 Release Target Volume (below).

The September 2013 Release Target Volume - will be adjusted with the forecast to:

600 kaf/month for annual releases at or below 9.0 maf

700 kaf/month for annual release above 9.0 maf up to 10.0 maf

800 kaf/month for annual release above 10.0 maf up to 11.0 maf

900 kaf/month for annual release above 11.0 maf up to 12.0 maf

Up to powerplant capacity for high equalization releases

- Monthly release volumes will be modified each month in consultation with Western Area Power Administration.
- Additionally, the Bureau of Reclamation will continue to apply best professional judgment in conducting actual operations and in response to changing conditions throughout the water year. Such efforts will continue to be undertaken in coordination with the DOI/DOE agencies, and after consultation with the basin states as appropriate, to consider changing conditions and adjust projected operations in a manner consistent with the objectives of these parameters as stated above and pursuant to the Law of the River.

Presenters

Dave Trueman, Division Manager, Upper Colorado Region, Bureau of Reclamation
Shane Capron, Chair, Technical Work Group (Western Area Power Administration)

Previous Action Taken

- ✓ By TWG: At its June 2012 meeting, the TWG passed the following motion by consensus.
 - TWG recommends to the AMWG to recommend to the Secretary of the Interior his approval of the DOI-DOE Proposed Hydrograph for Water Year 2013.

Relevant Science

The TWG and AMWG were presented with the sediment/financial results from the DOI-DOE analysis of potential operational scenarios for the 2012 Hydrograph. These analyses were based upon the USGS sand retention model and Western's GTMax power/financial model. The anticipated range of conditions and objectives for 2013 remain similar to the previous year; therefore, the 2012 targeted approach adopted as the 2012 Hydrograph is recommended again for the 2013 Hydrograph. The last year of September/October steady flows is 2012. The 2013 Hydrograph recommendation was adjusted to account for no steady flows.

Background Information

Reclamation Report

At the June TWG meeting, the departments of Interior and Energy proposed the adoption of the hydrograph used in 2012 (Targeted Method) for the 2013 Hydrograph. TWG recommended it to the AMWG (see TWG report below). At the AMWG meeting, Reclamation will present an analysis comparing the Targeted Method to Traditional MLFF monthly allocations for both this year (2012) and 2013.

TWG Report

The TWG heard a report from Dave Trueman (Reclamation) on a proposed hydrograph at its June 2012 meeting. No significant issues were raised with regard to the proposal based on the 2012 hydrograph (Targeted Method) with changes made to account for the termination of fall steady flows. Some concerns were discussed regarding the potential effect of an HFE on the hydrograph and on the lack of an updated economic analysis. A revised economic analysis was requested for the AMWG meeting. The motion (above) was passed by consensus using TWG's new process for consensus building.

RECLAMATION

Managing Water in the West

2013 Hydrograph

Adaptive Management Work Group
August 29-30, 2012



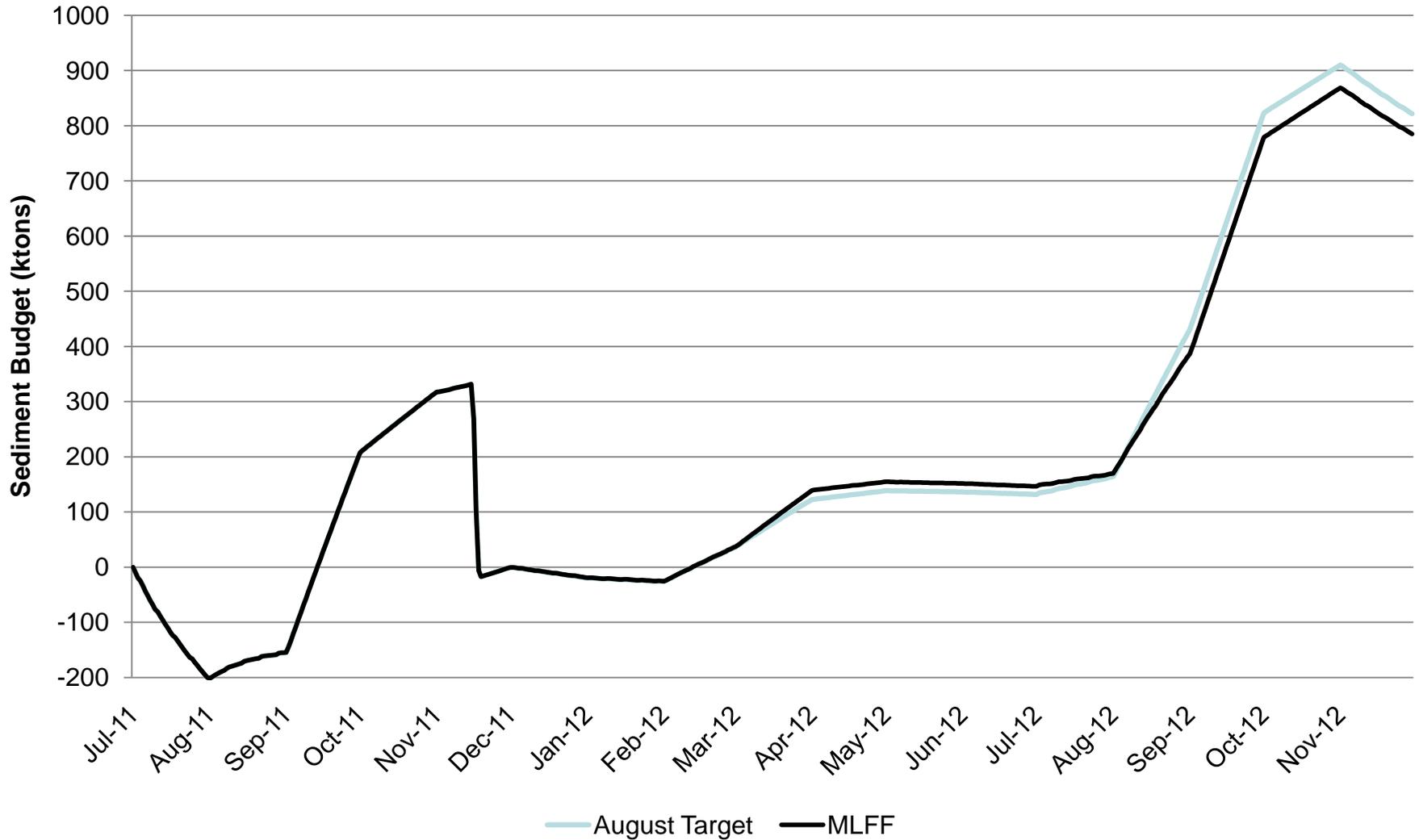
U.S. Department of the Interior
Bureau of Reclamation

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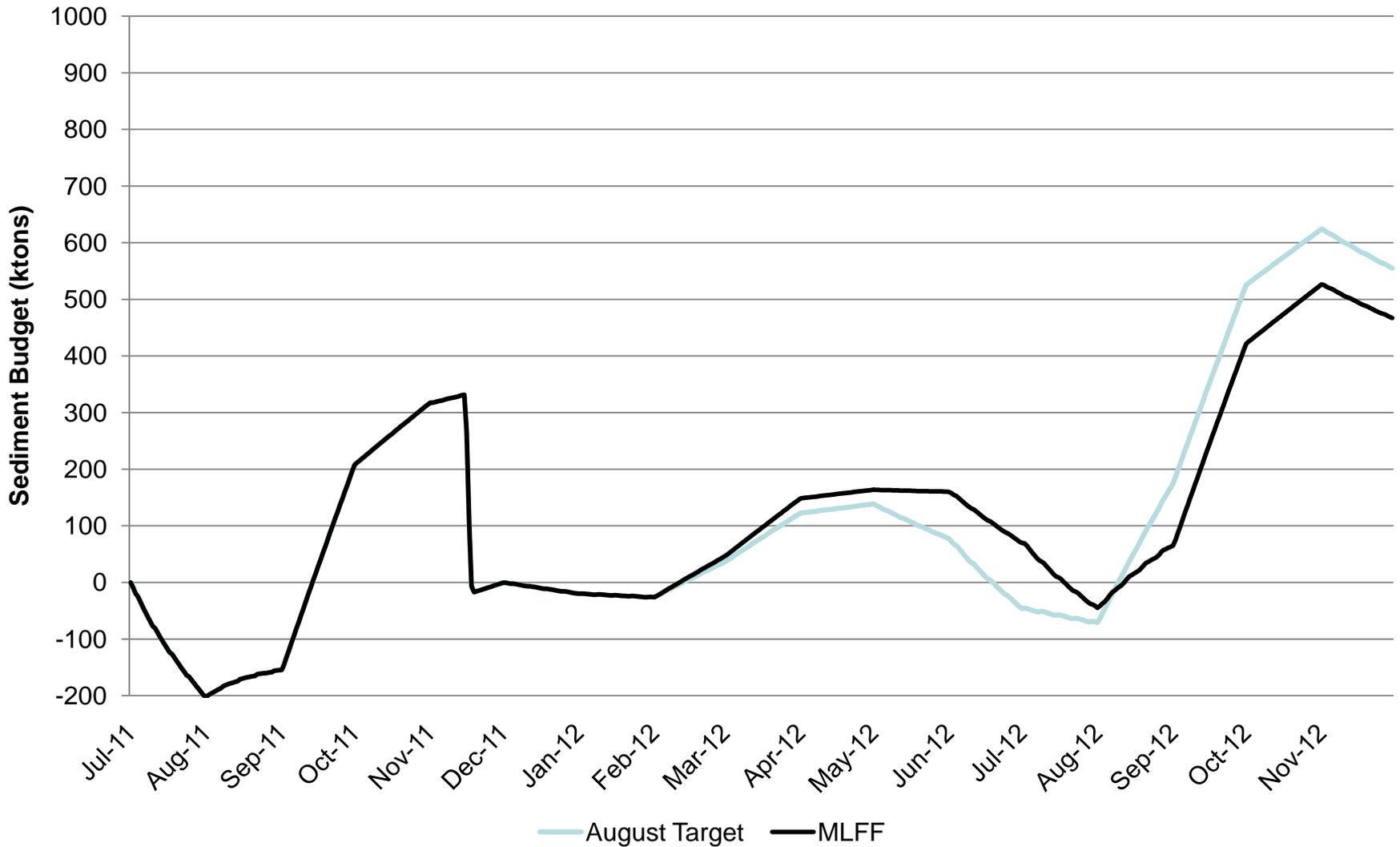
Manager
Resource Management Division
Upper Colorado Region
Salt Lake City, UT

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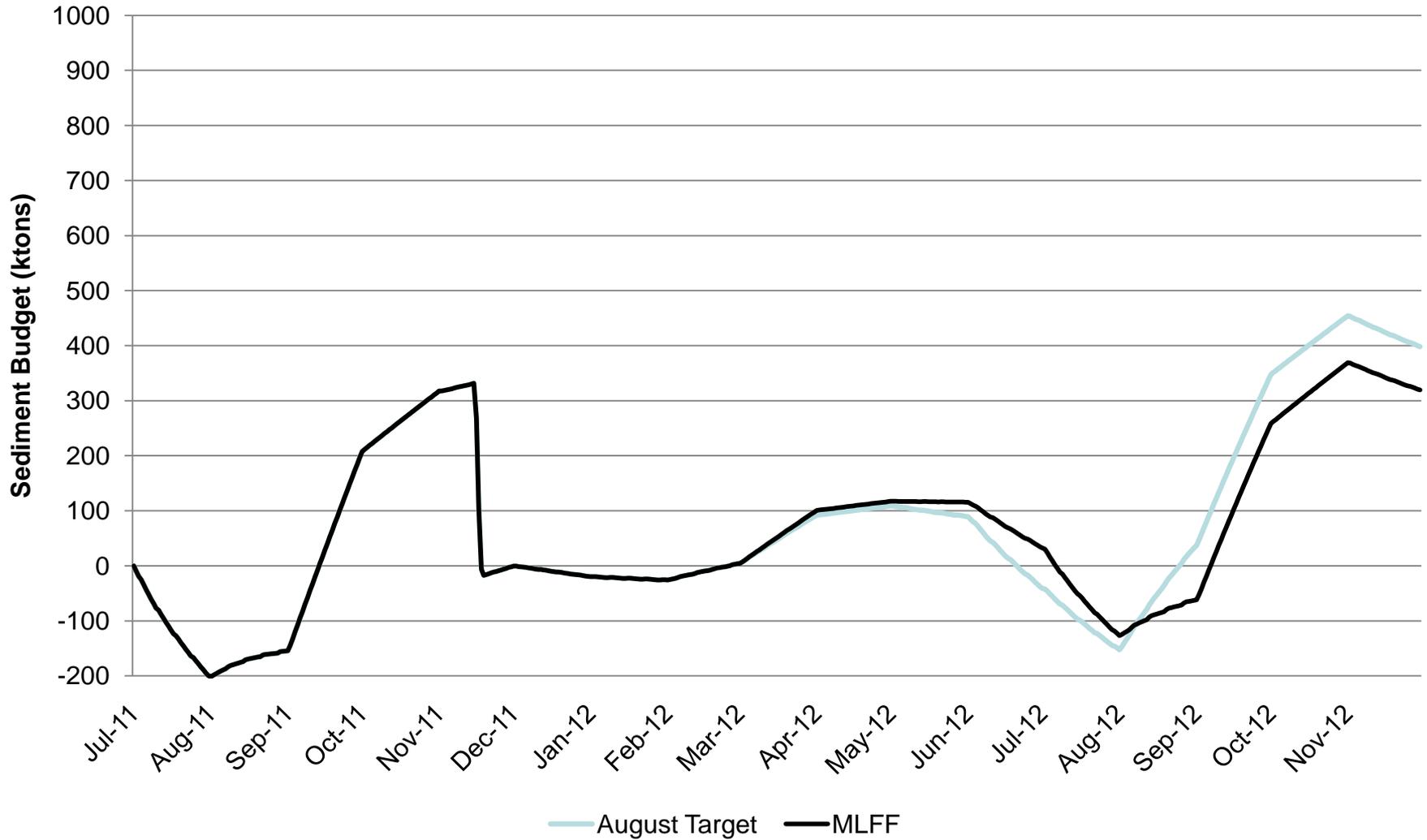
Upper Marble Canyon 8.23 maf



Upper Marble Canyon 9.3 maf

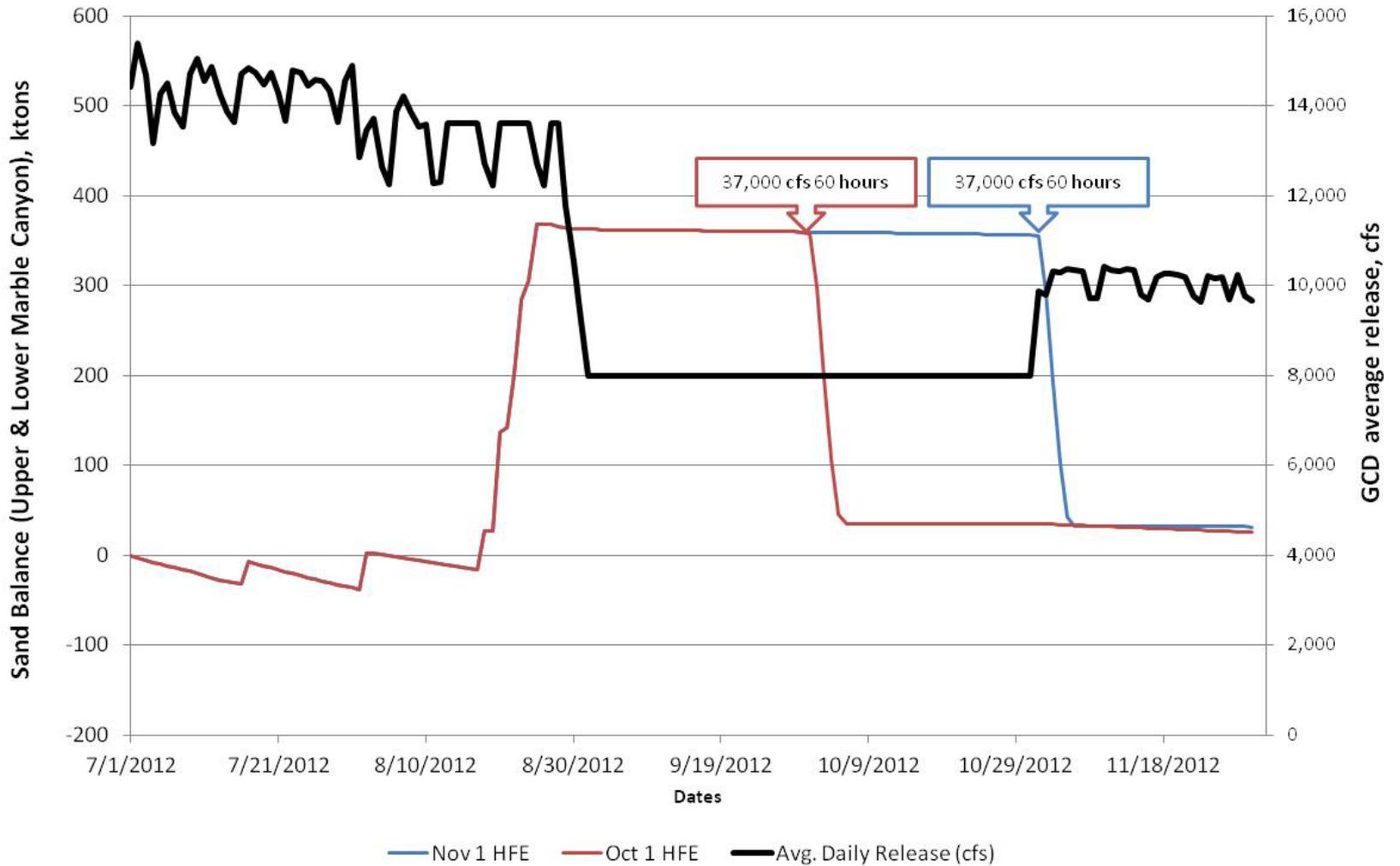


Upper Marble Canyon 9.7 maf



2012 HG at 8.23 MAF Pattern

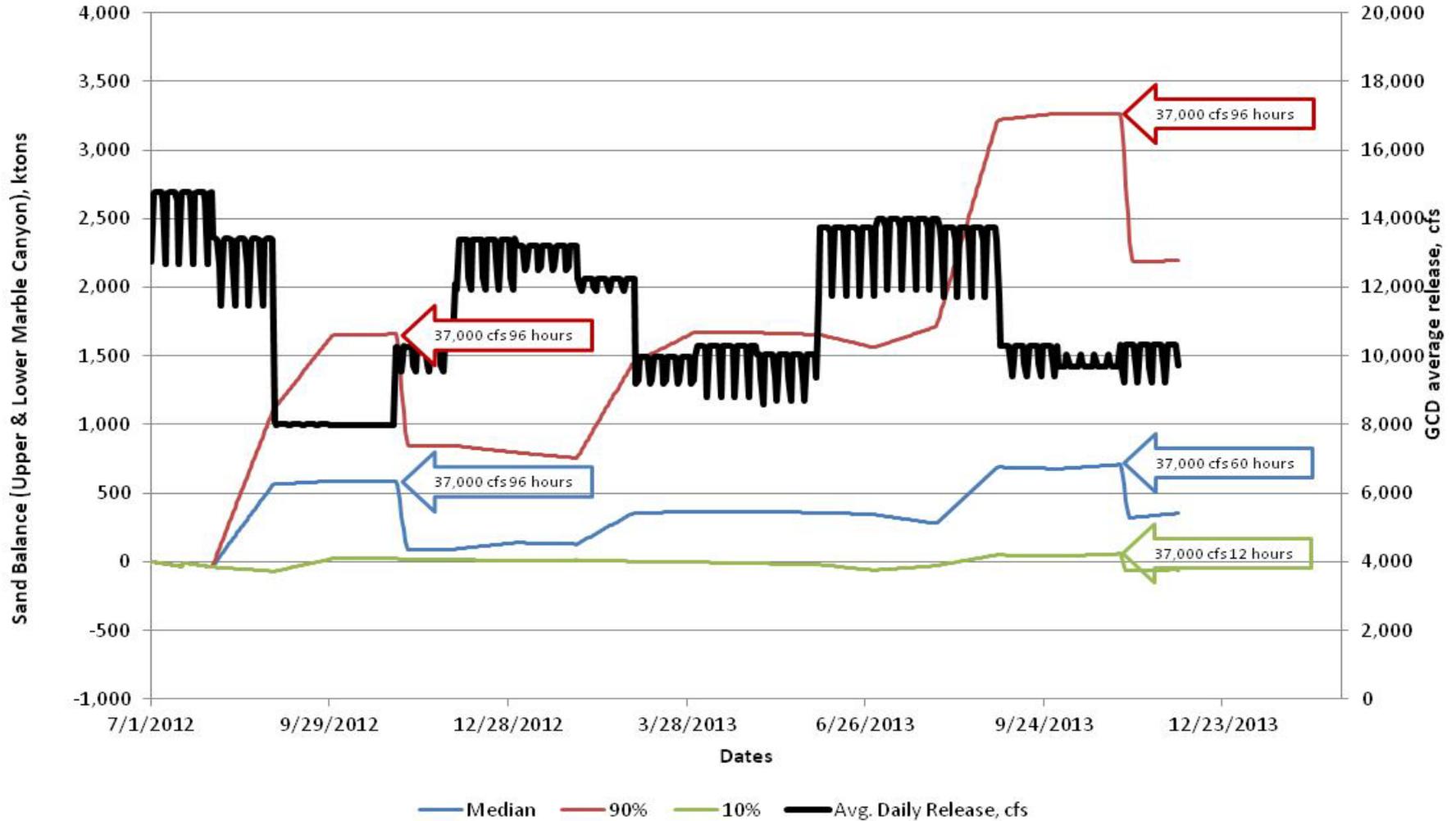
Sand Budget Model Results, 2012 Jul - Nov
Observed Paria Sand Input through 8/28/2012
HFE Oct-1 vs Nov-1



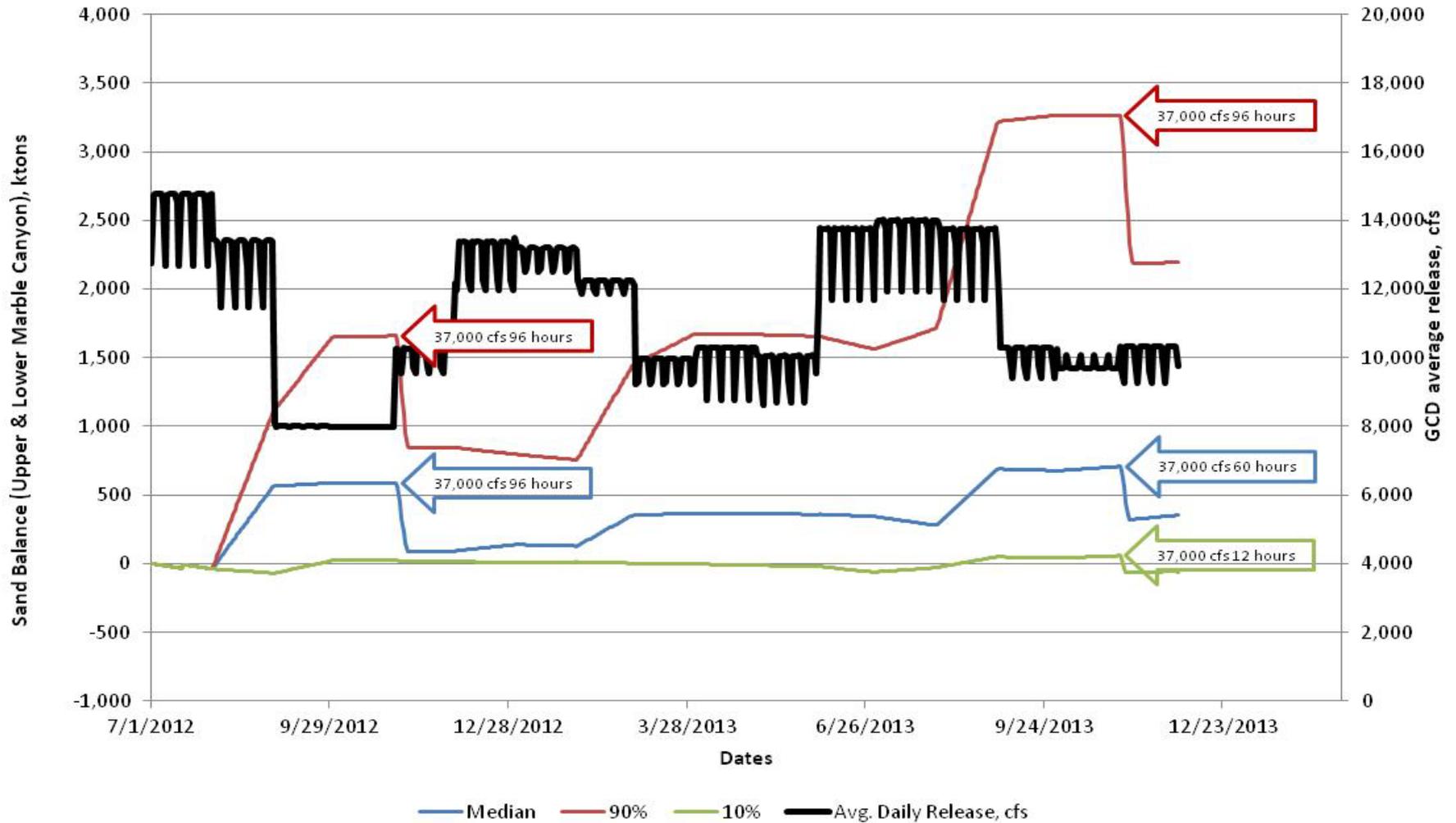
2013 HG at 8.23 MAF

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2013 MLFF at 8.23 maf (Case 2a)
Sand Budget Model Results, Jul 2012 - Nov 2013
Paria Sand Loads (Median, 90%, 10%)



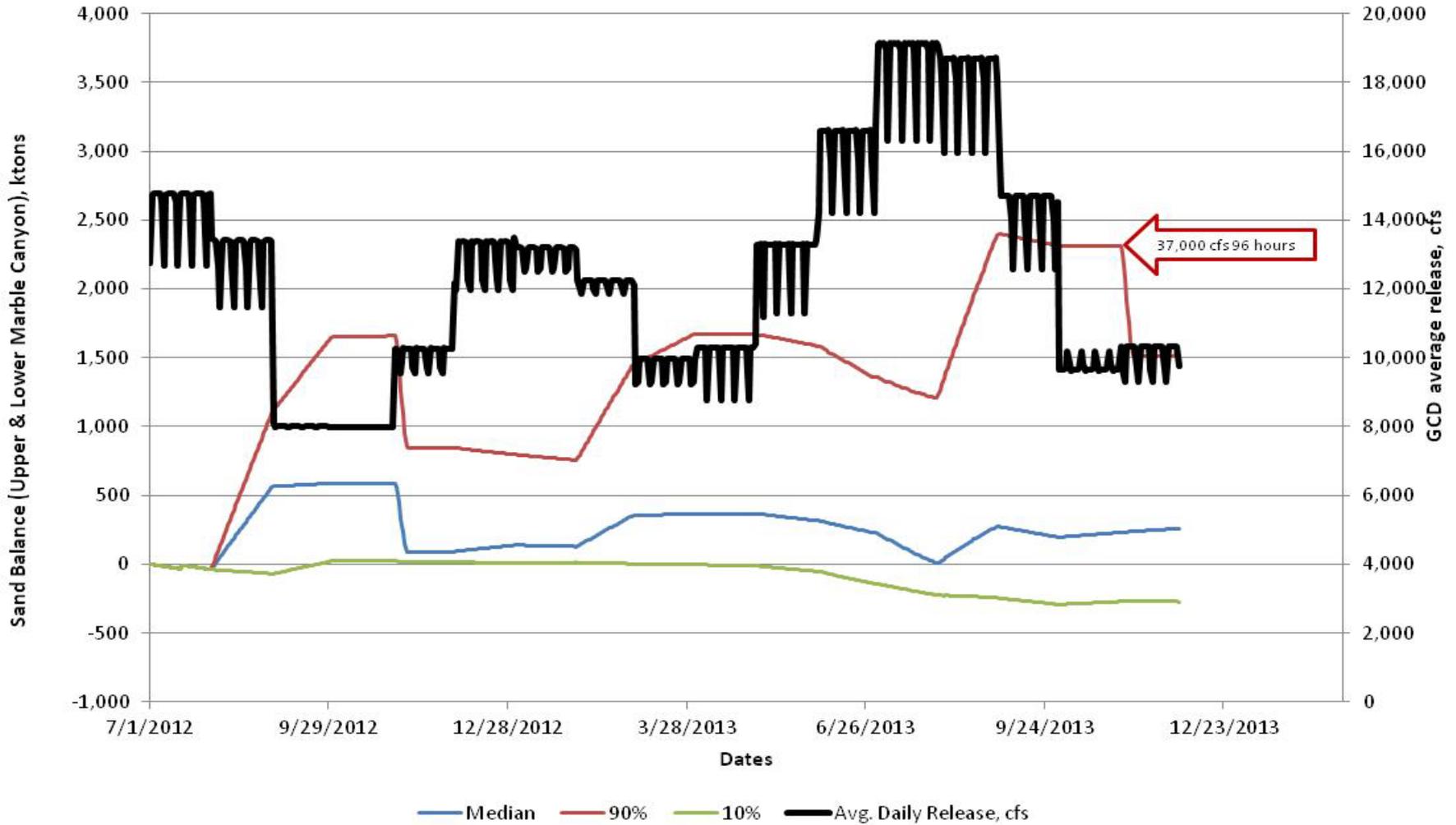
2013 Proposed Hydrograph at 8.23 maf (Case 2b)
Sand Budget Model Results, Jul 2012 - Nov 2013
Paria Sand Loads (Median, 90%, 10%)



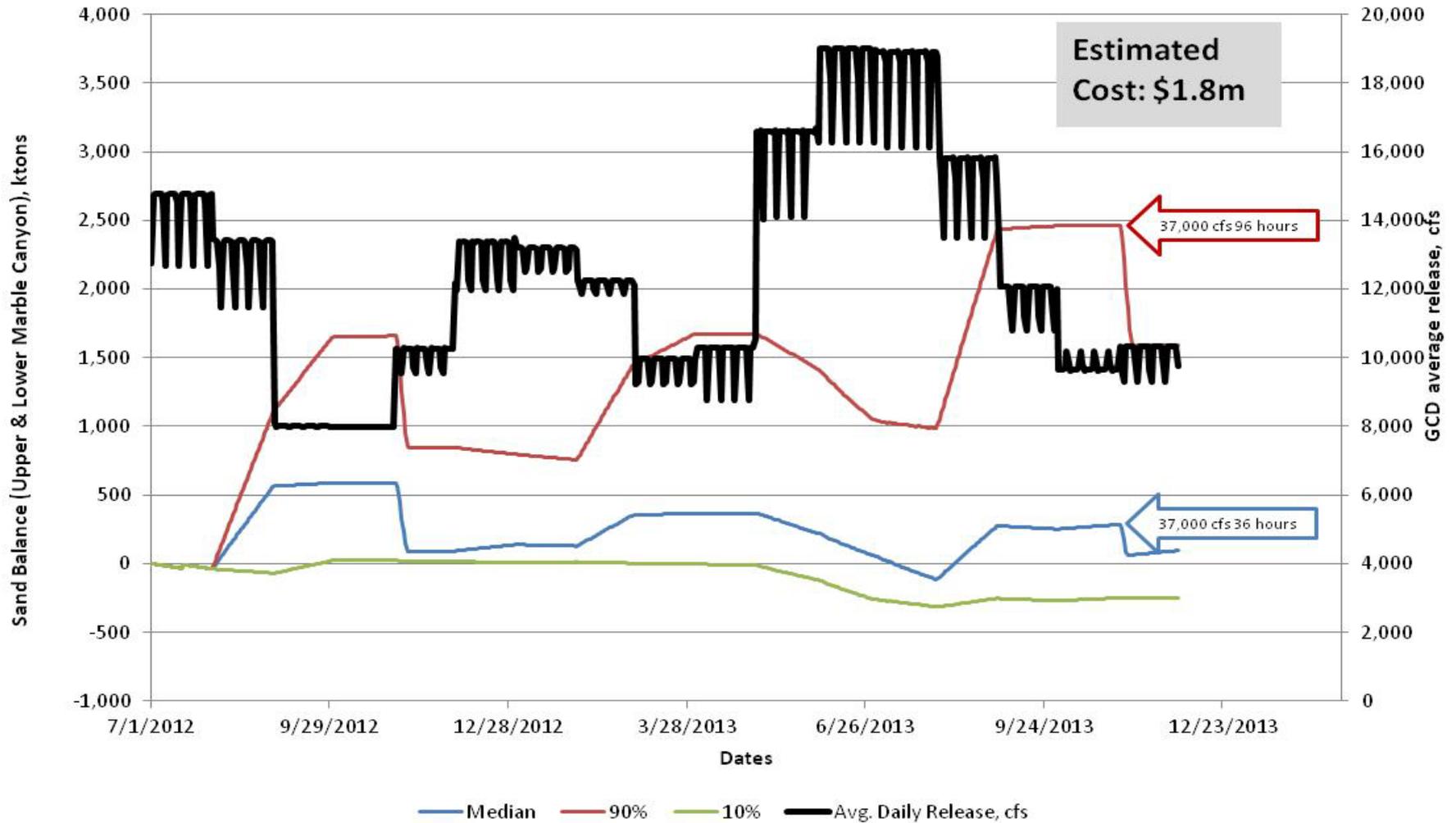
2013 HG at 9.46 MAF

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2013 MLFF at 9.46 maf (Case 2c)
Sand Budget Model Results, Jul 2012 - Nov 2013
Paria Sand Loads (Median, 90%, 10%)



2013 Proposed Hydrograph at 9.46 maf (Case 2d)
Sand Budget Model Results, Jul 2012 - Nov 2013
Paria Sand Loads (Median, 90%, 10%)



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