GCMRC Science Update
June 11 TWG WebEx

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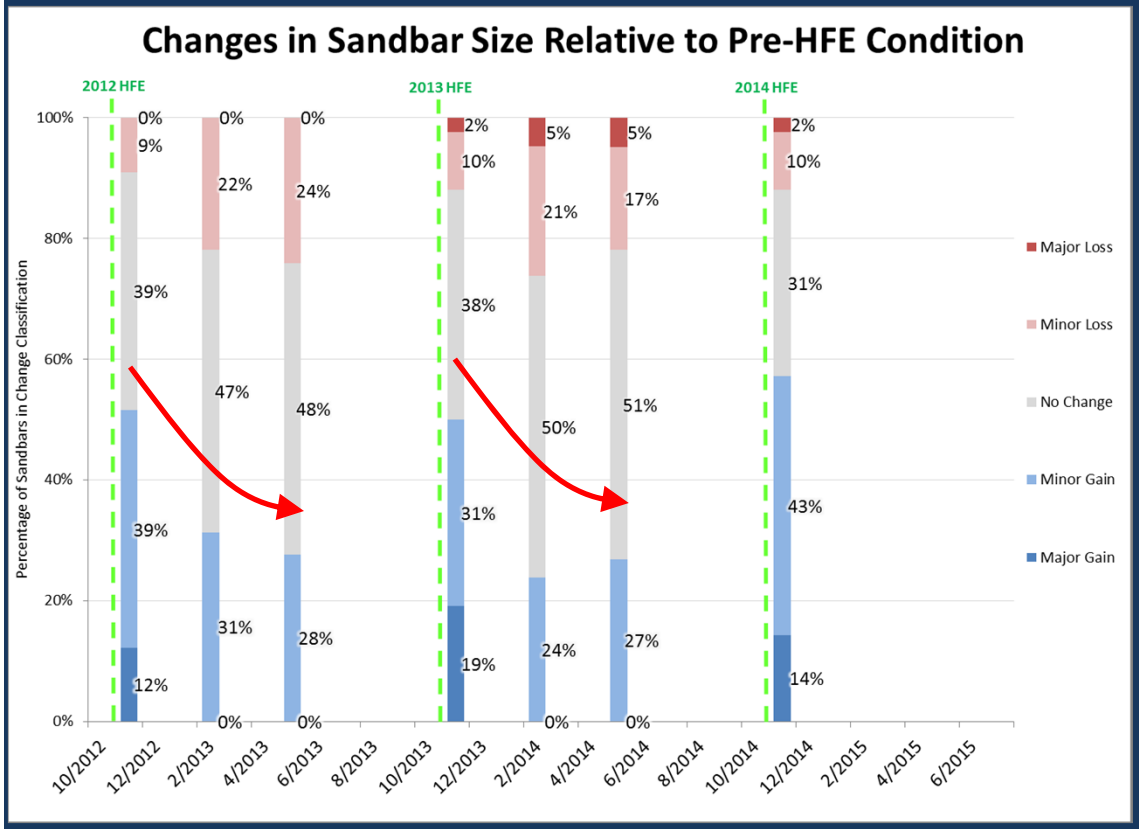
2014 HFE

- 24 sites (57%) larger
- 13 sites (31%) no change
- 5 sites (12%) smaller

Photos at www.gcmrc.gov/sandbar/

Response to HFE Protocol



2012 HFE 2013 HFE 2014 HFE

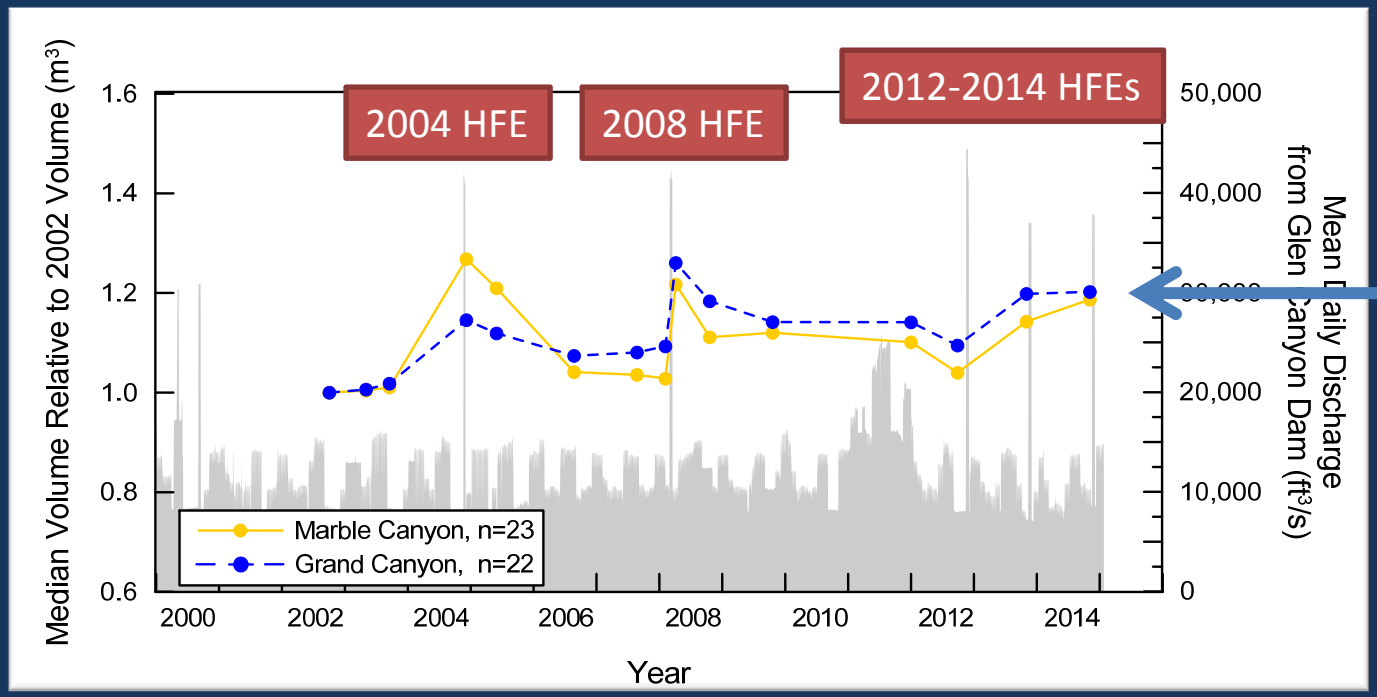
- Each of the HFEs in the past 3 years has resulted in sandbar deposition
  - They continue to erode in following 6 to 12 months

Photos at www.gcmrc.gov/sandbar/

USGS

Preliminary results, subject to review and revision – do not cite

Sandbars: 2002-present



~10 months after HFEs, bars still larger than before start of protocol

- Increase in volume in both Marble Canyon and Grand Canyon at long-term monitoring sites
  - Deposition by HFEs
  - Bars erode following HFEs, but not quite to pre-flood size
- Frequent HFEs = consistently larger bars
- Cumulative effect? No evidence yet that bars will get progressively larger.
- 2013 and 2014 HFEs were smaller than 2012 and earlier.
- www.gcmrc.gov/sandbar/

USGS

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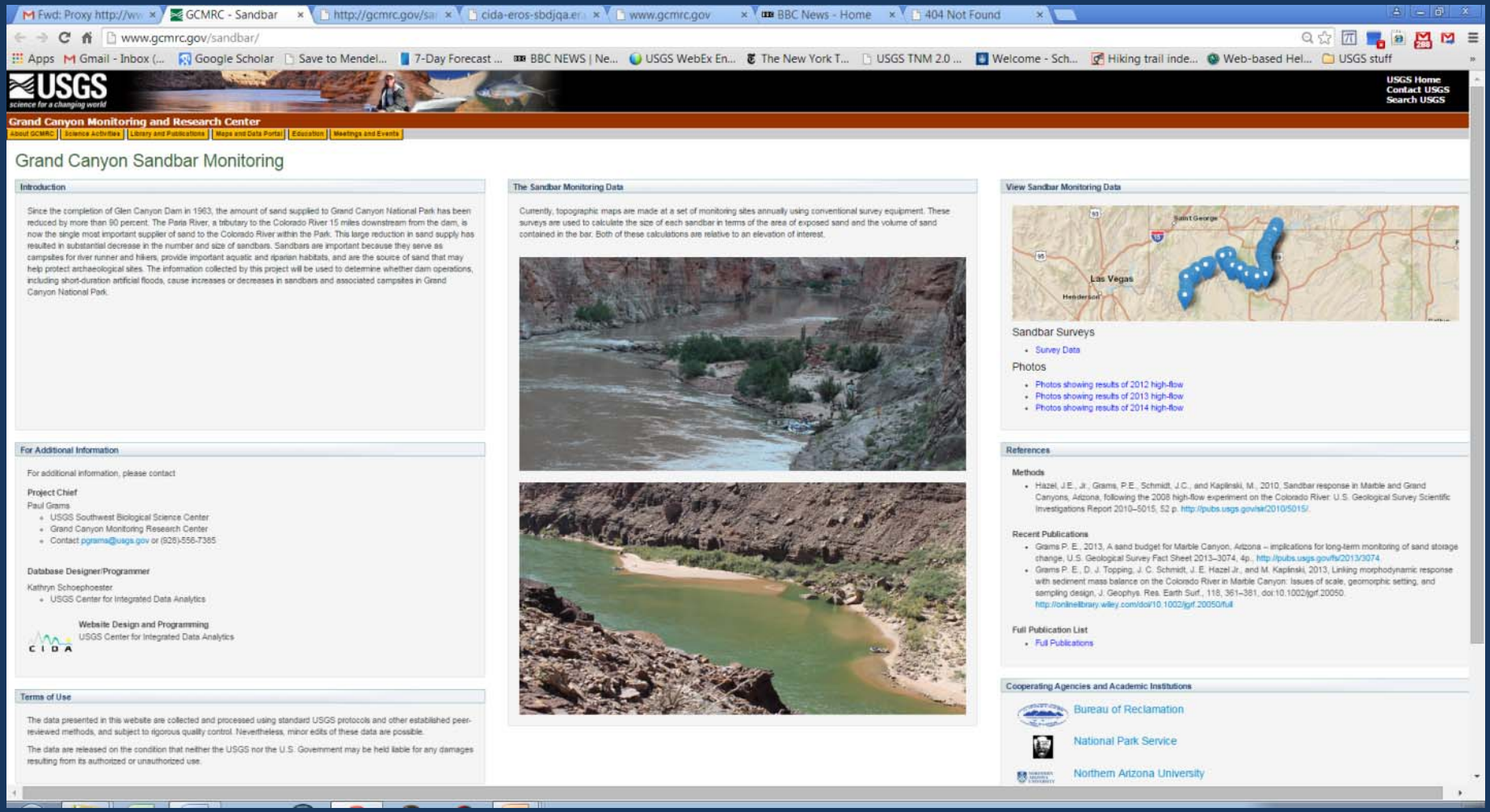


www.gcmrc.gov/sandbar/

Rainbow Trout Abundance Estimates By Reach

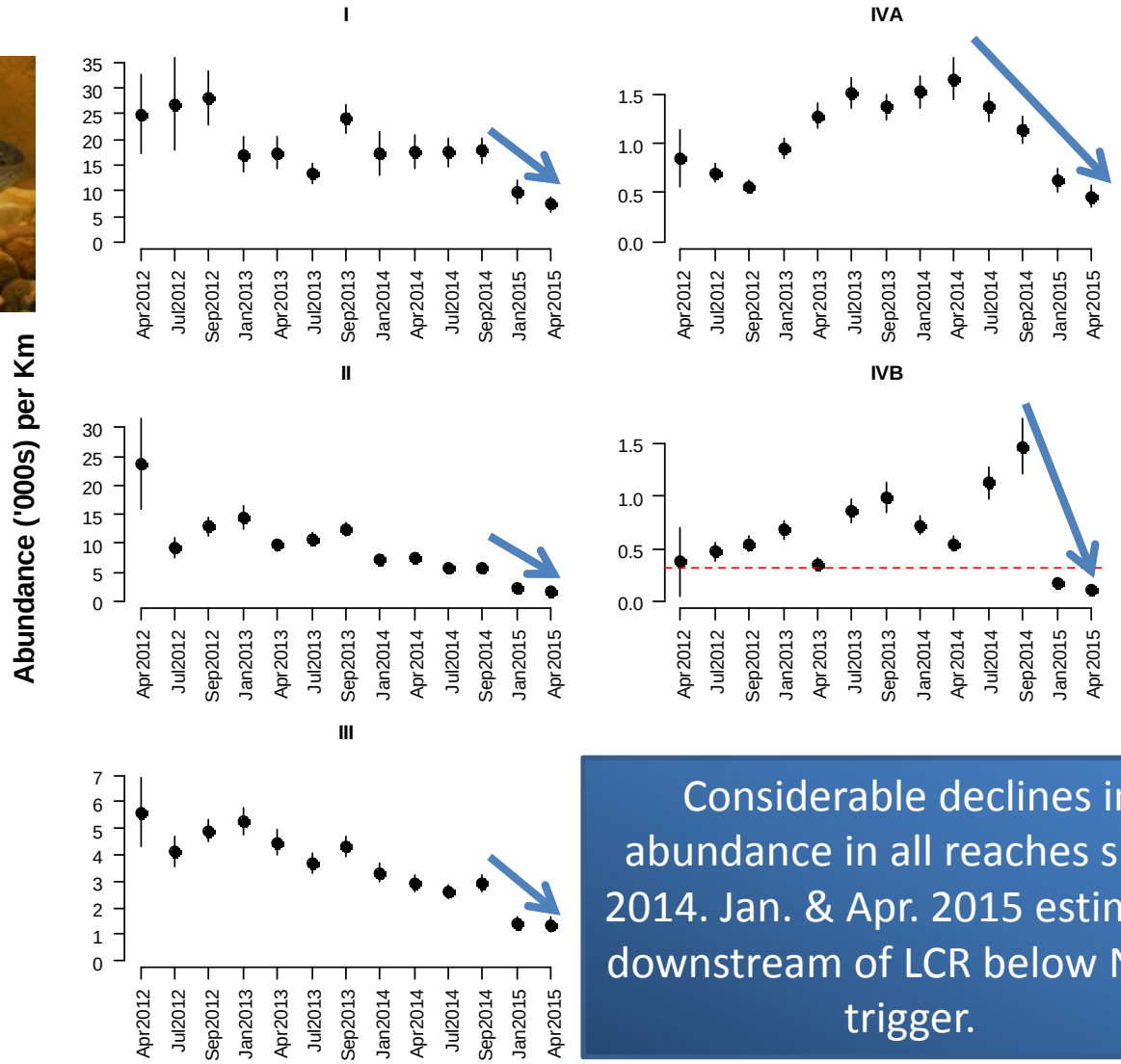
I – Glen Canyon/Lees Ferry

II – House Rock

III – Buck Farm

IVa – Upstream of LCR

IVb – Downstream of LCR



Considerable declines in abundance in all reaches since 2014. Jan. & Apr. 2015 estimates downstream of LCR below NNFC trigger.

USGS

(Preliminary Data from Korman and Yard 2015. Do Not Cite.)