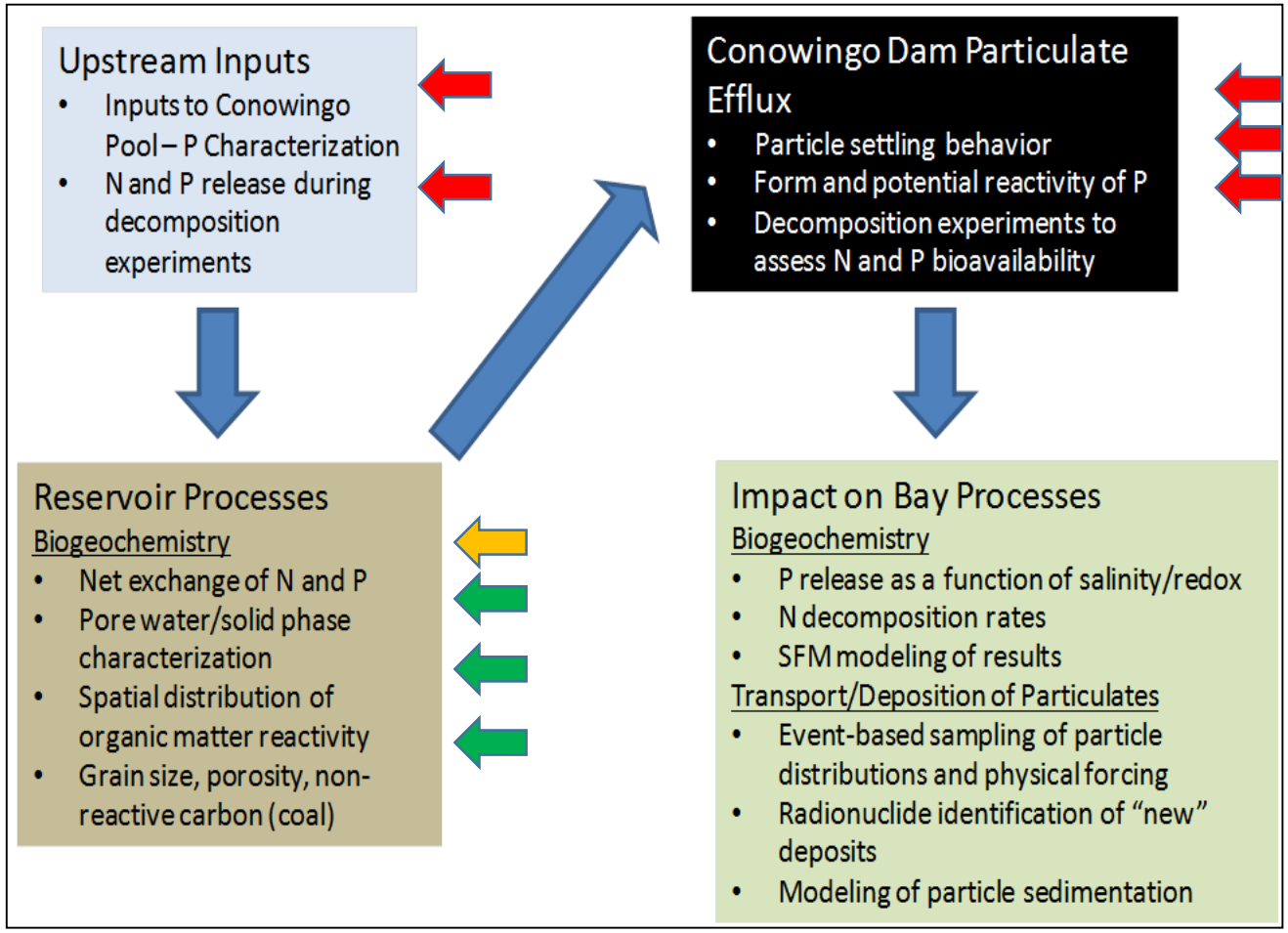
UMCES Conowingo Progress

- We are sampling a second, likely small “event” this week. The first high(er) flows a few weeks ago provided valuable data on particulate loads and solid phase chemistry, settling velocities, and preliminary “diagenesis”. As expected with a multi-faceted research team (UMCES, USGS, DNR, AECOM, Gomez and Sullivan), coordination was imperfect but we are adjusting our approach to calling “events” significant. But we have the start of the critical data sets needed for this assessment.
- The sediment program begins in earnest next week, 26 cores > 3 m will be collected from 13 sites. Two core will be used by MDE for PCM analysis. By mid-May, we will have carried out our first sediment-water exchange measurements, including denitrification.
- At next meeting, we can report on biogeochemical measurements in the reservoir
- Upcoming field work will include work downstream in the Chesapeake Bay, including simulated releases of Conowingo particulates placed on Bay sediments from multiple locations (oxygen, salinity differences).

Project Outline - UMCES



Ongoing:

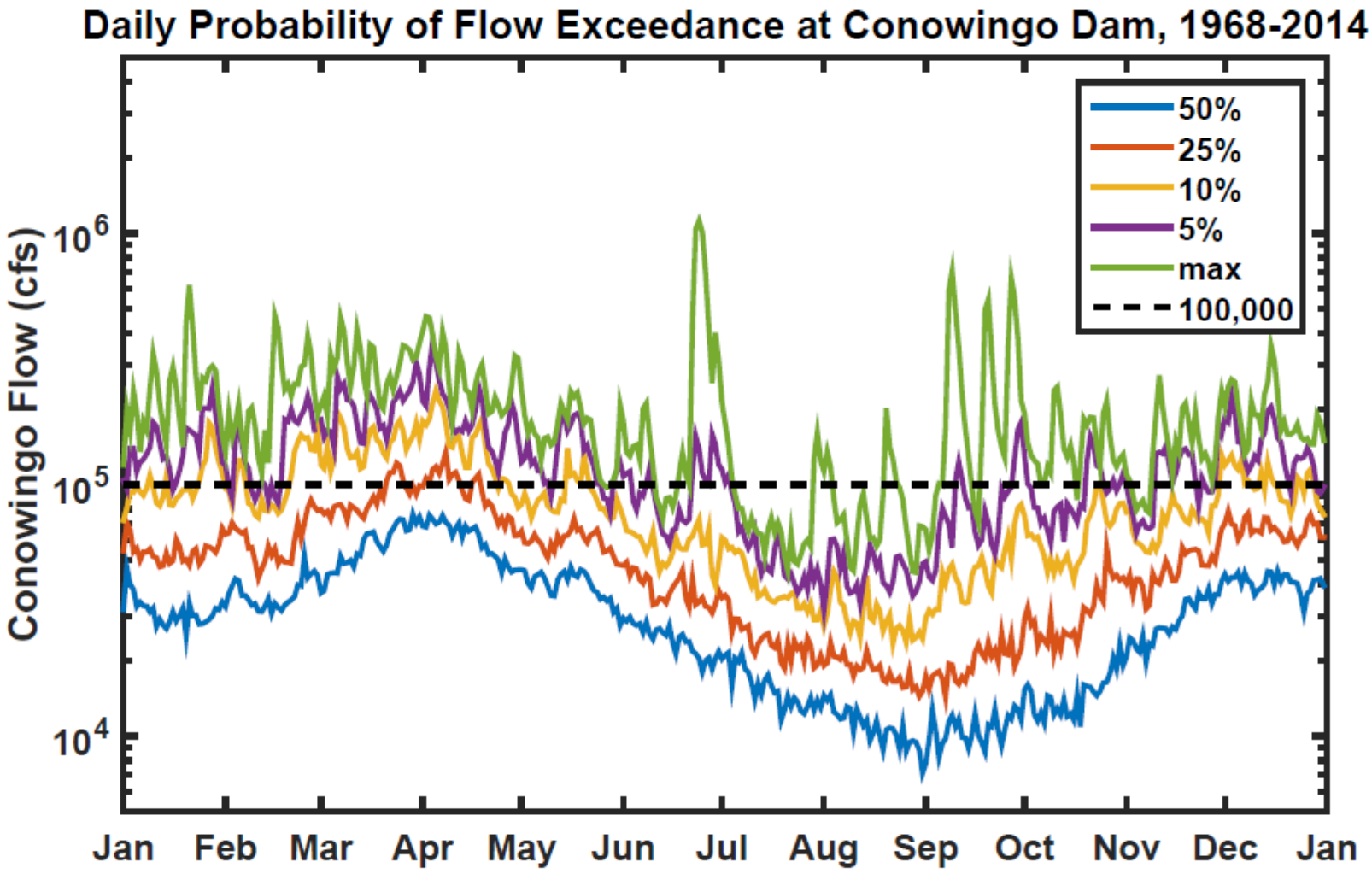
- Sampling of 2 events for chemistry, preliminary decomposition work
- Settling behavior

Next week:

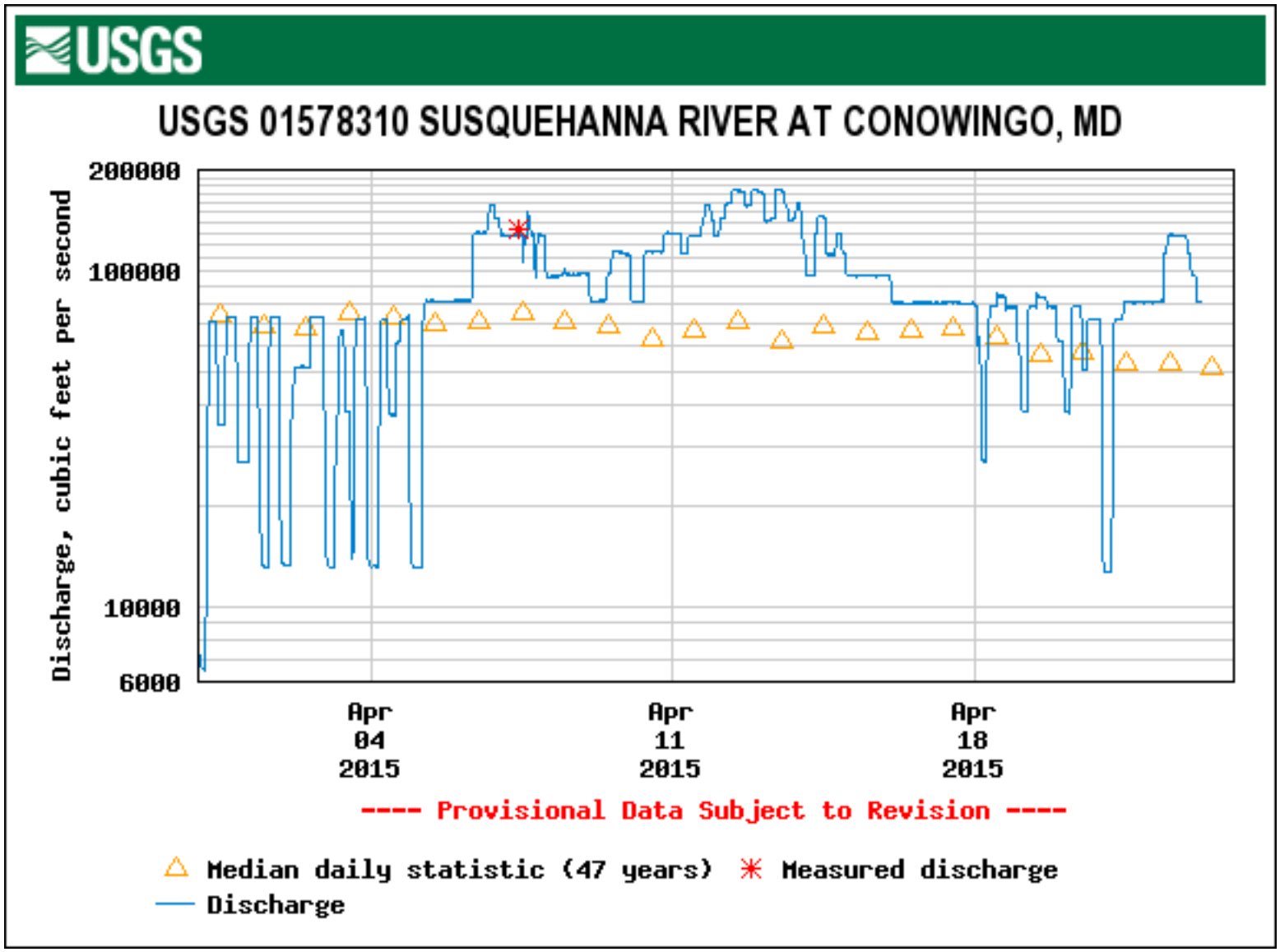
- Long (> 3 m) cores collected for particulate reactivity, accretion, solid phase characterization (13 sites)

Early-May:

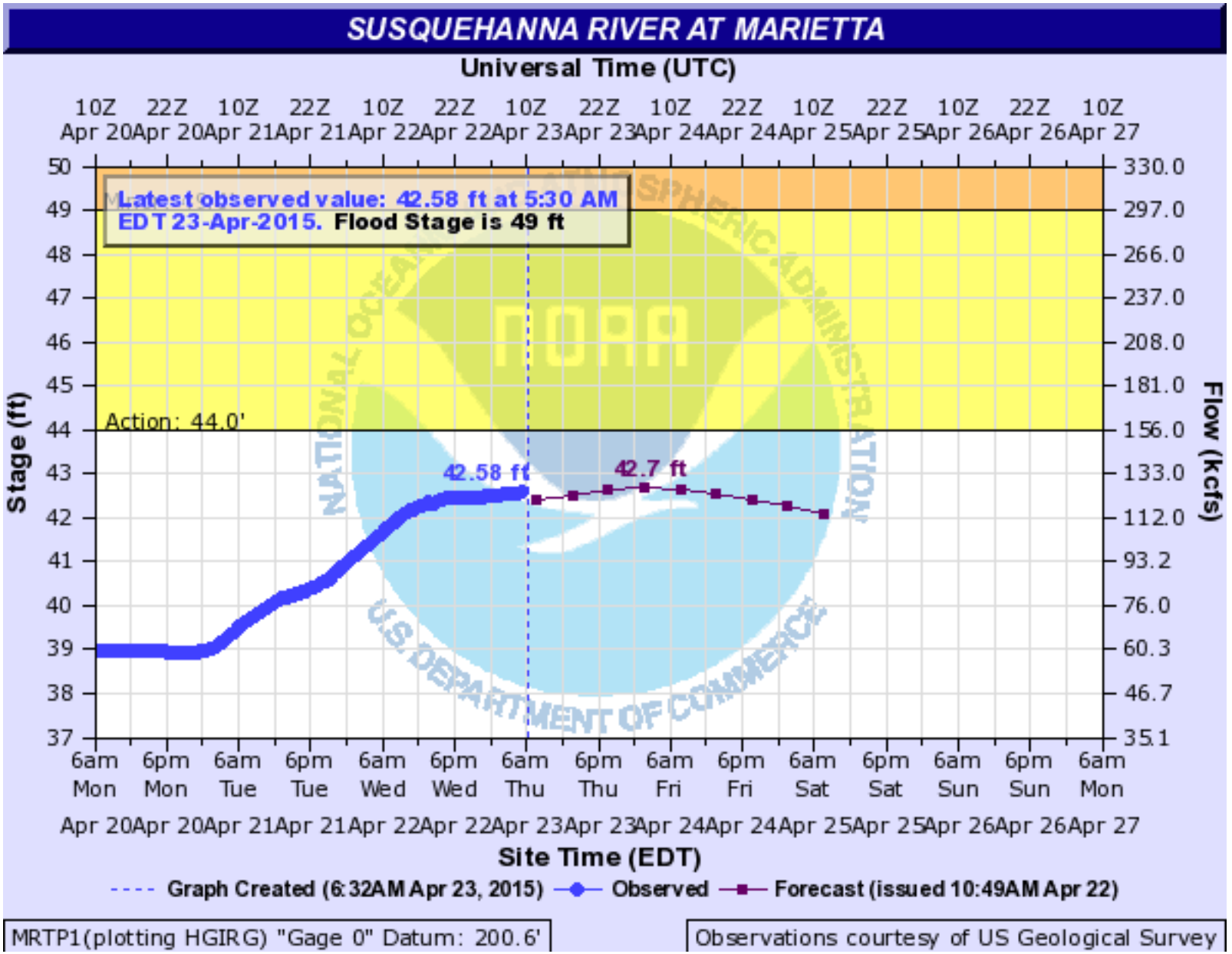
- Reservoir sediment nutrient exchange
- Surficial sediment reactivity
- Short-lived nuclides for short-term accretion


Daily Probability of Flow Exceedance at Conowingo Dam, 1968-2014
Conowingo Flow (cfs)
10^6
10^5
10^4
50%
25%
10%
5%
max
100,000
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan

Flows at Conowingo last 3 weeks



Marietta Flow forecast today 0700



Marietta Flow forecast today 1100