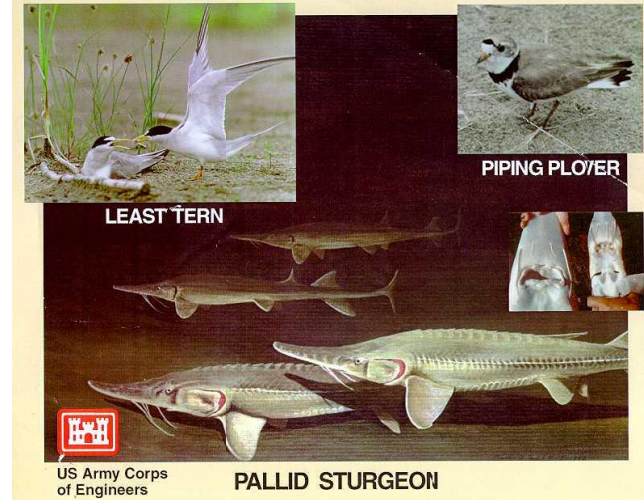


**U.S. Army Corps of Engineers
Northwestern Division**

Missouri River Basin Water Management

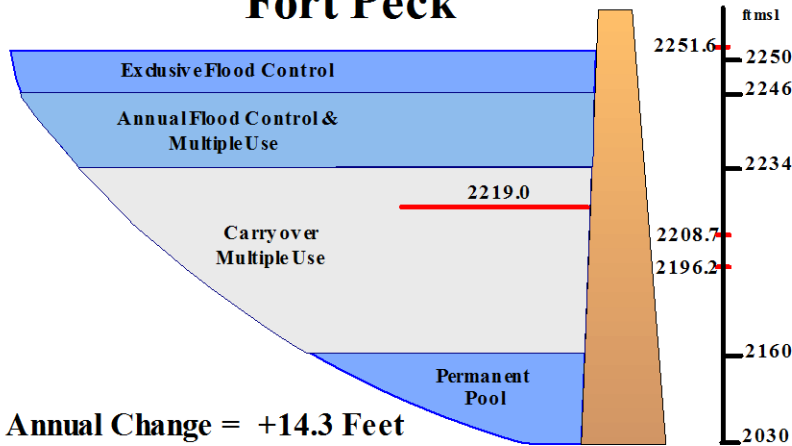


MoRAST
June 16, 2009

Jody Farhat, P.E.
402-996-3840
jody.s.farhat@usace.army.mil

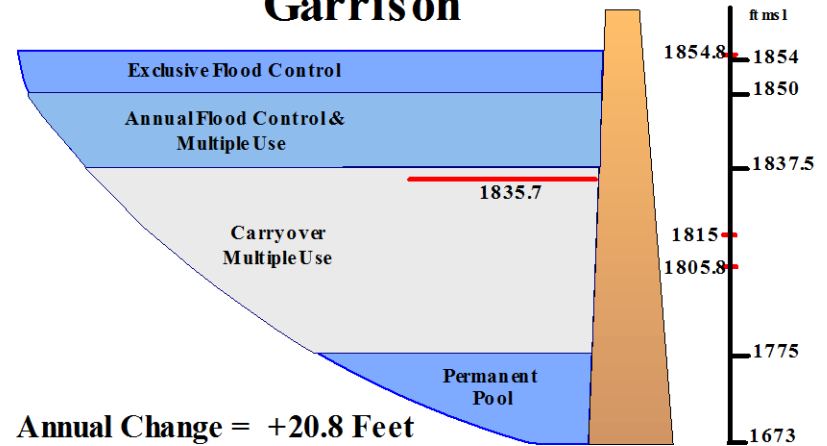
Current Reservoir Levels - June 15, 2009

Fort Peck

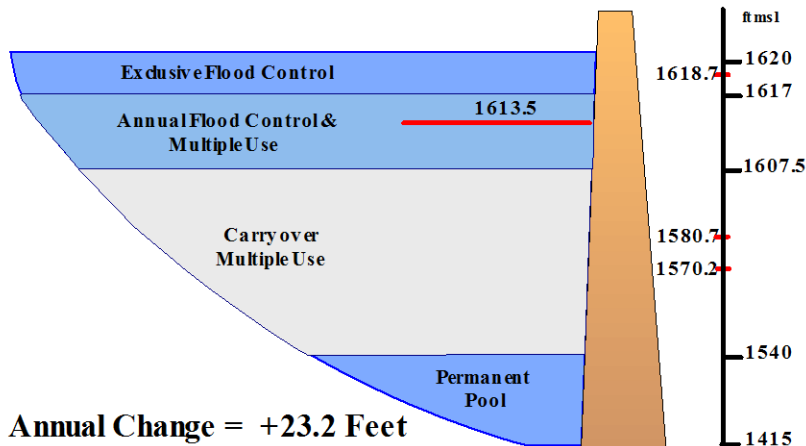


Annual Change = +14.3 Feet
15.0 feet below Top of Carryover

Garrison

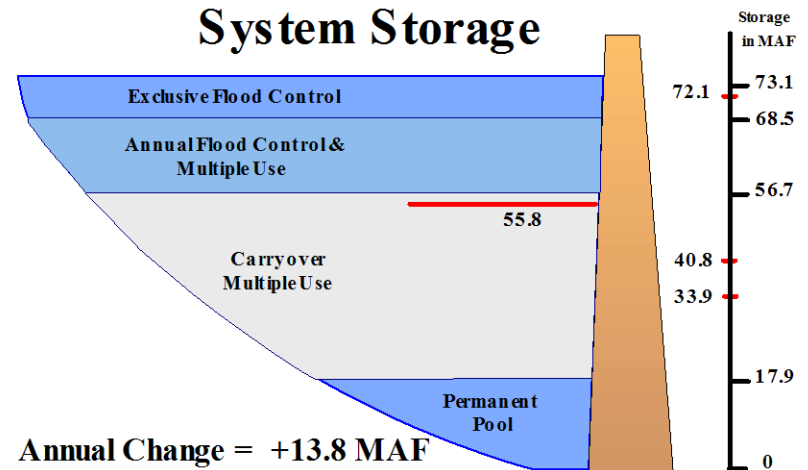


Annual Change = +20.8 Feet
1.8 feet below Top of Carryover



Annual Change = +23.2 Feet
6.0 feet above Top of Carryover

System Storage

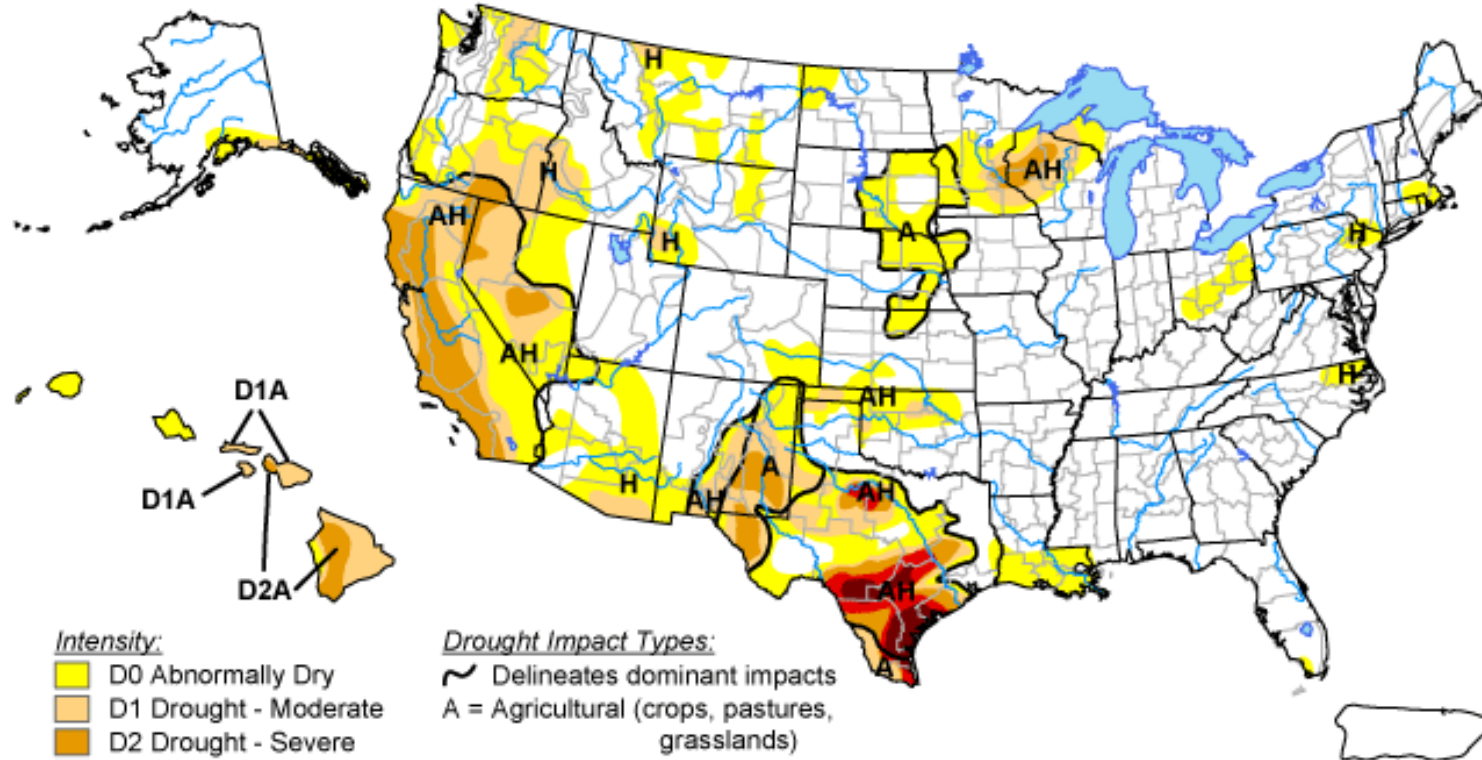


Annual Change = +13.8 MAF
0.9 MAF below Top of Carryover






U.S. Drought Monitor

June 9, 2009


Valid 8 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, June 11, 2009

Author: Brian Fuchs, National Drought Mitigation Center

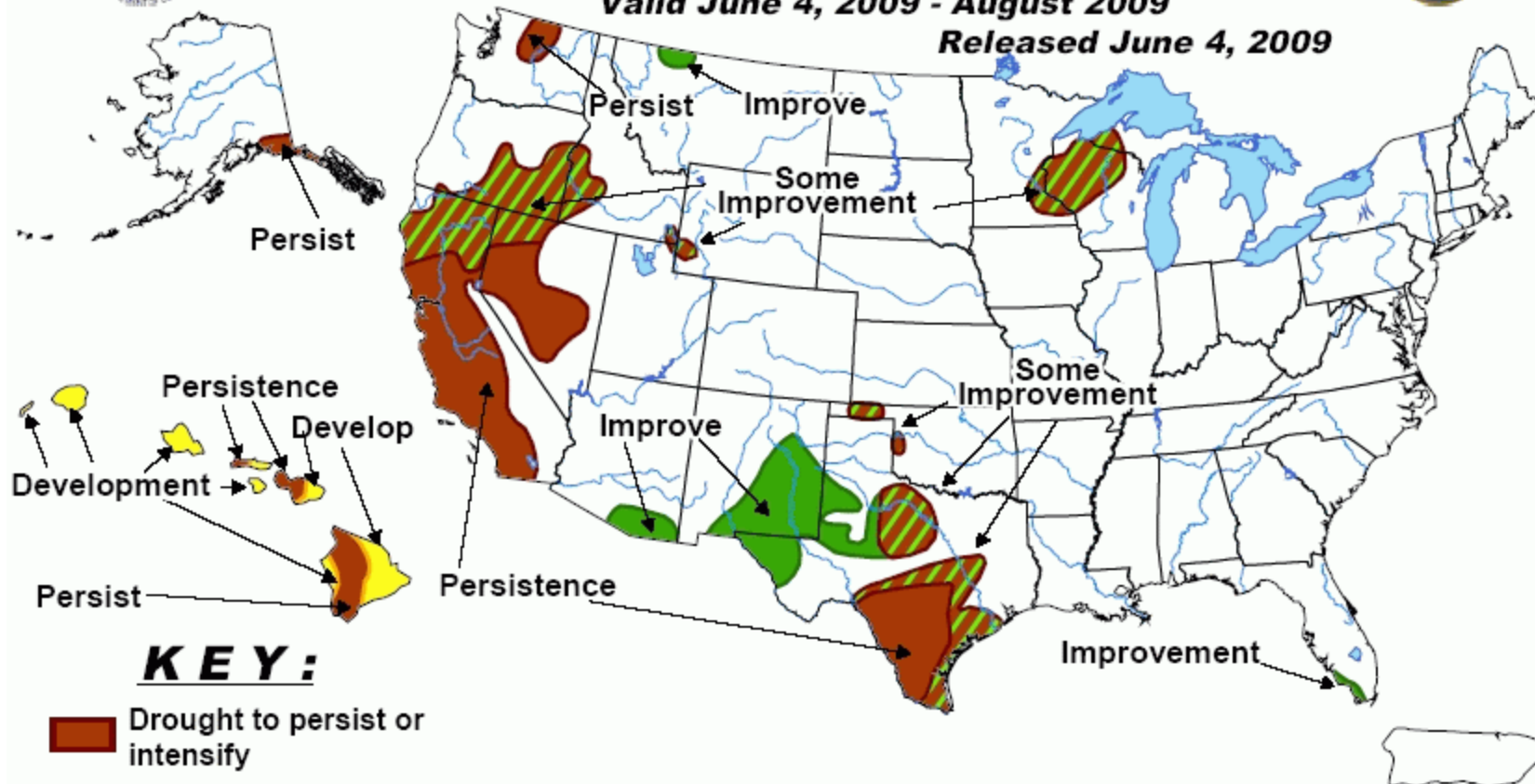


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid June 4, 2009 - August 2009

Released June 4, 2009



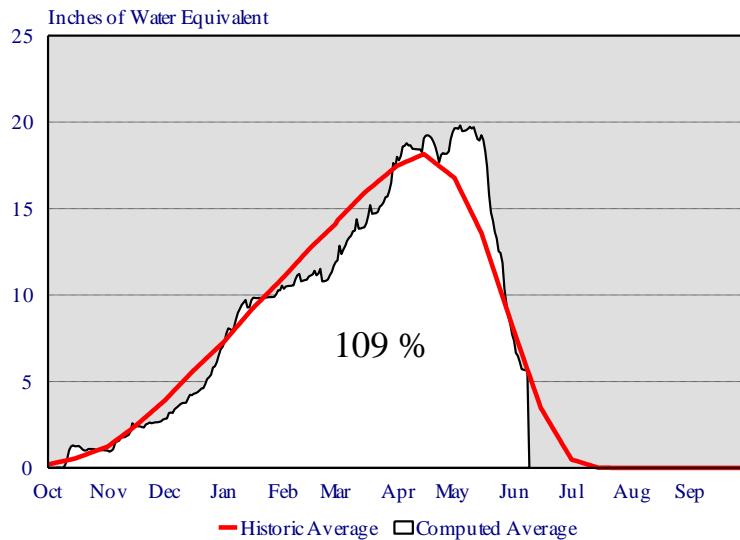
KEY:

-  Drought to persist or intensify
-  Drought ongoing, some improvement
-  Drought likely to improve, impacts ease
-  Drought development likely

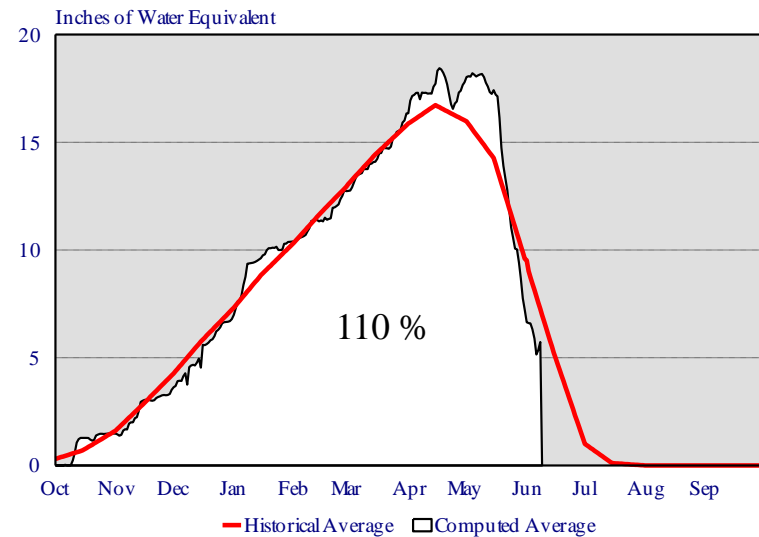
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

Missouri River Basin Mountain Snowpack Water Content 2008-2009

Total Above Fort Peck



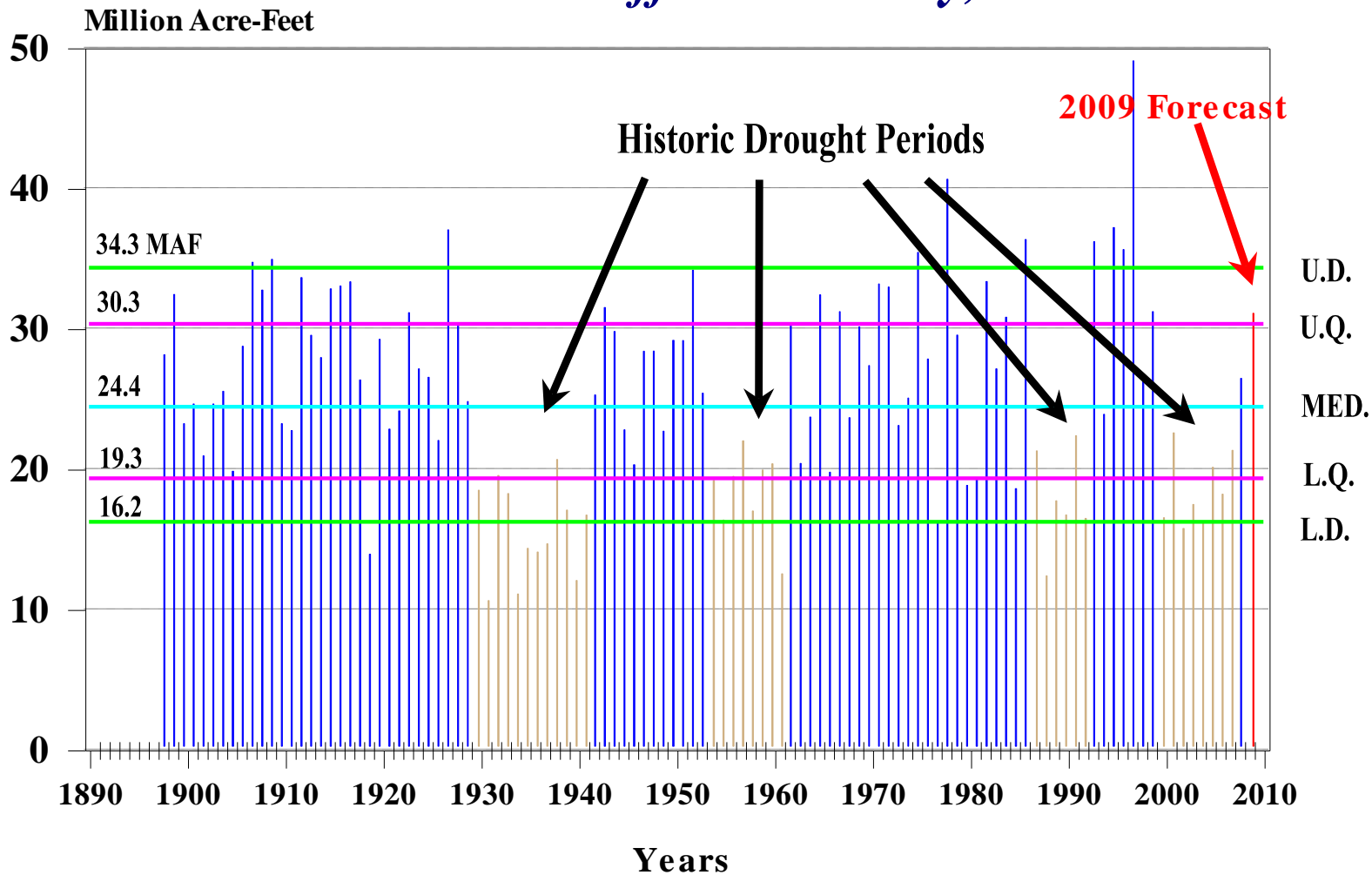
Total Fort Peck to Garrison



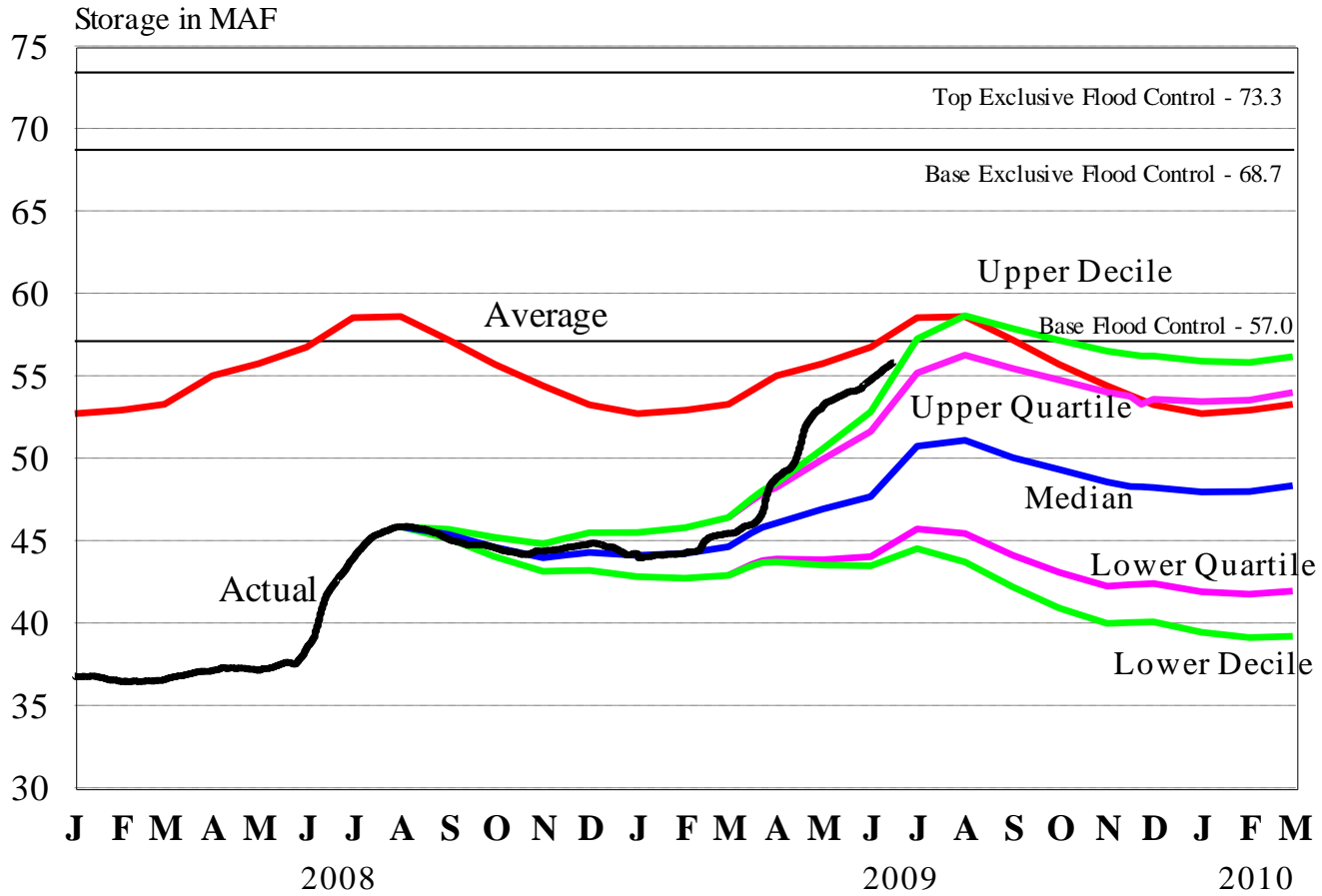
June 8, 2009

Provisional data subject to revision.

Missouri River Basin Annual Runoff at Sioux City, Iowa



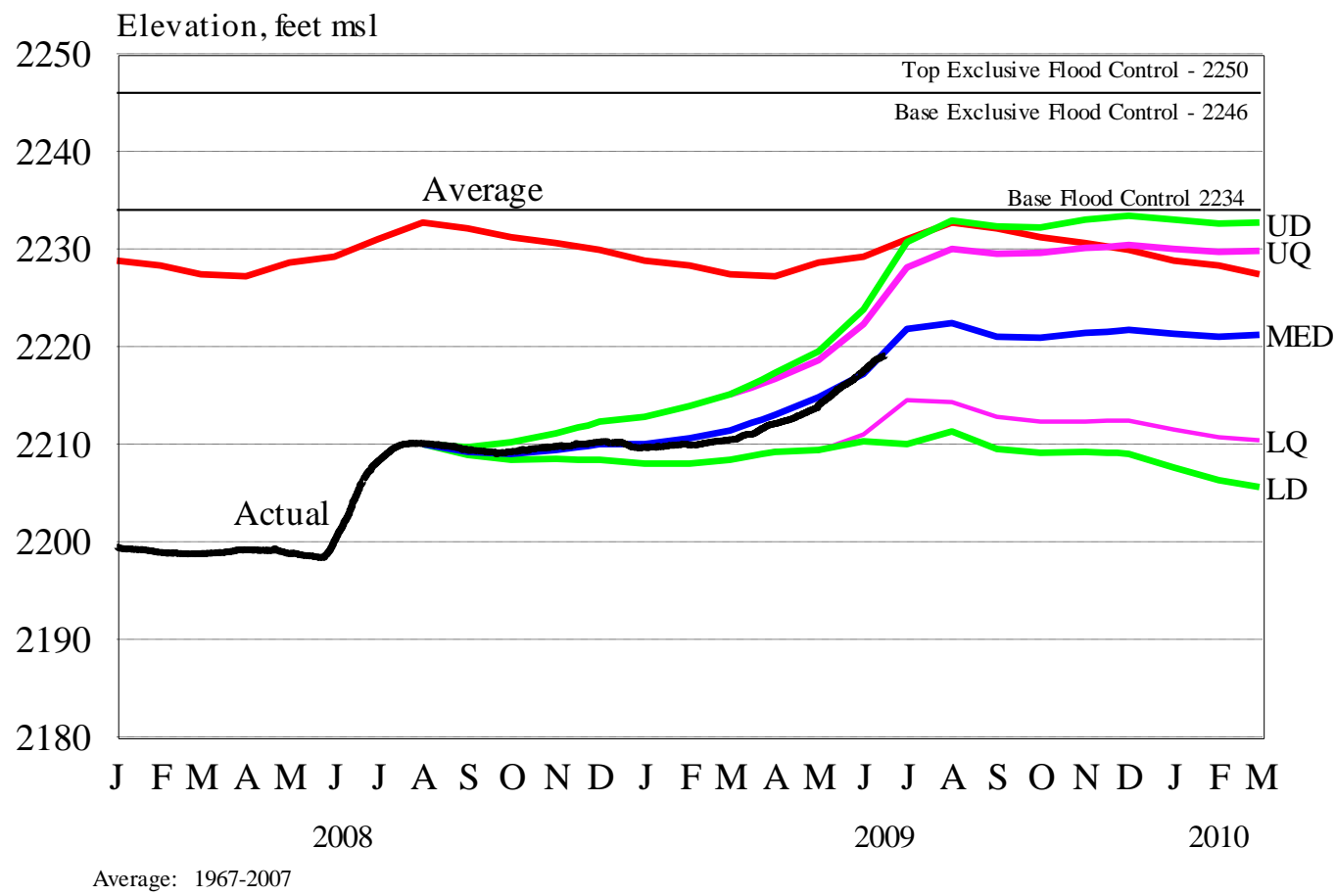
System Storage 2008-2009 AOP



Average: 1967-2007

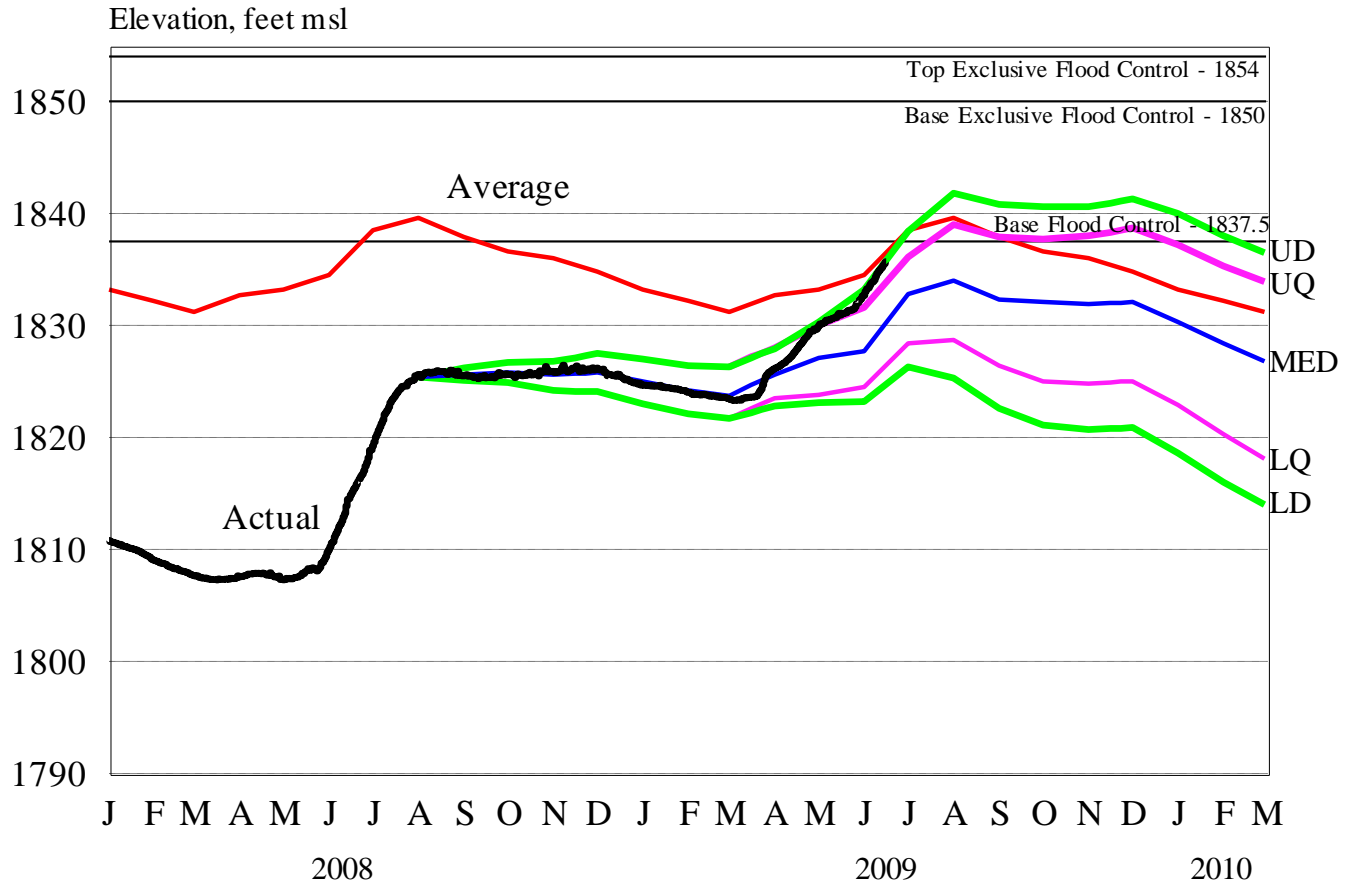
Fort Peck

2008-2009 AOP



Garrison

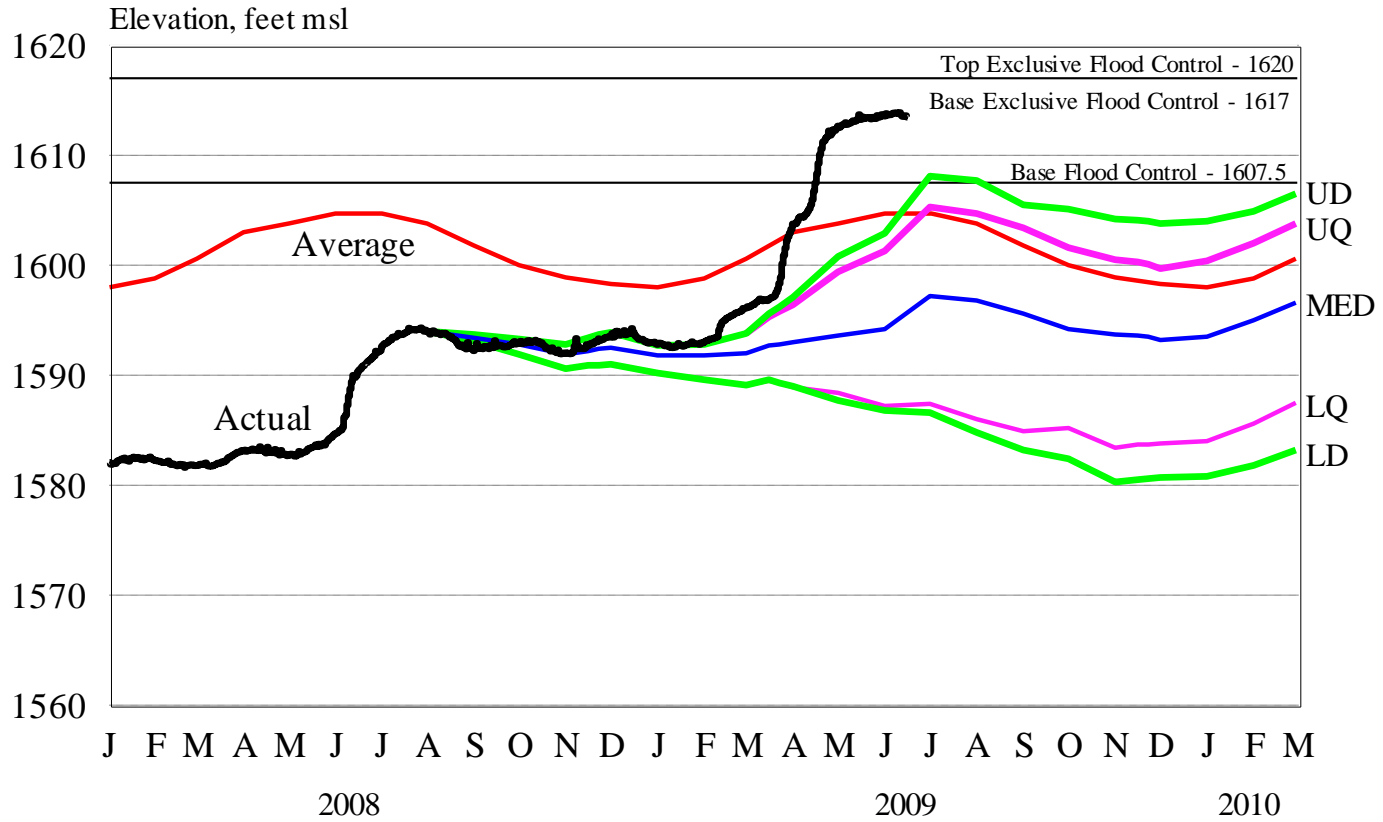
2008-2009 AOP



Average: 1967-2007

Oahe

2008-2009 AOP



Spring Pulses from Gavins Point Dam

- March pulse cancelled due to high downstream flows
- May pulse implemented beginning on May 18
 - Peak magnitude of 6,000 cfs for 2 days
 - Pulse tail shortened to minimize take of nesting piping plovers
 - Pulse essentially eliminated downstream of the confluence with the Kansas River

Regulation for Remainder of 2009

- Continue regulation for terns and plovers
 - Intraday peaking patterns at Garrison and Fort Randall
 - Steady release – flow to target regulation at Gavins Point
- July 1 storage check
 - Full length navigation season and near full service flows
- September 1 storage check
 - Low winter releases

Development of 2009-2010 AOP

- Studies based on August 1 starting conditions
- Draft AOP released in mid-September
- Public meetings in mid-October
- Comment period closes in mid-November
- Final AOP released in mid-December

Development of 2009-2010 AOP

- Spring pulses
 - March 1 storage check
 - May 1 storage check and runoff forecast
- Navigation flow support and season length
 - March 15 storage check
 - July 1 storage check
- Rising pool during forage fish spawn
 - Fort Peck and Oahe's turns
- Flow support during nesting season
 - Steady release – flow to target
- Winter releases
 - September 1 storage check
- Unbalancing

Questions?