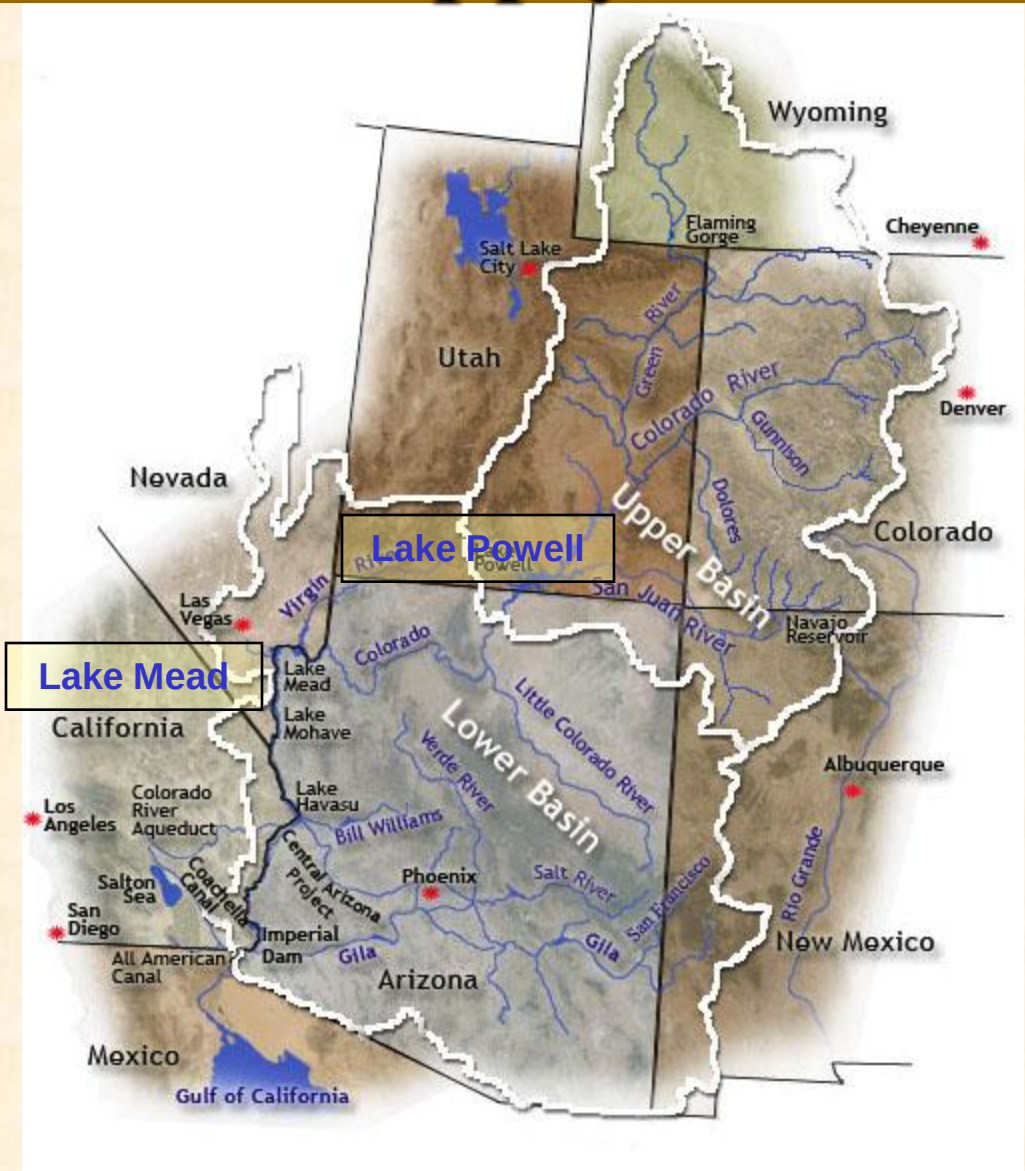
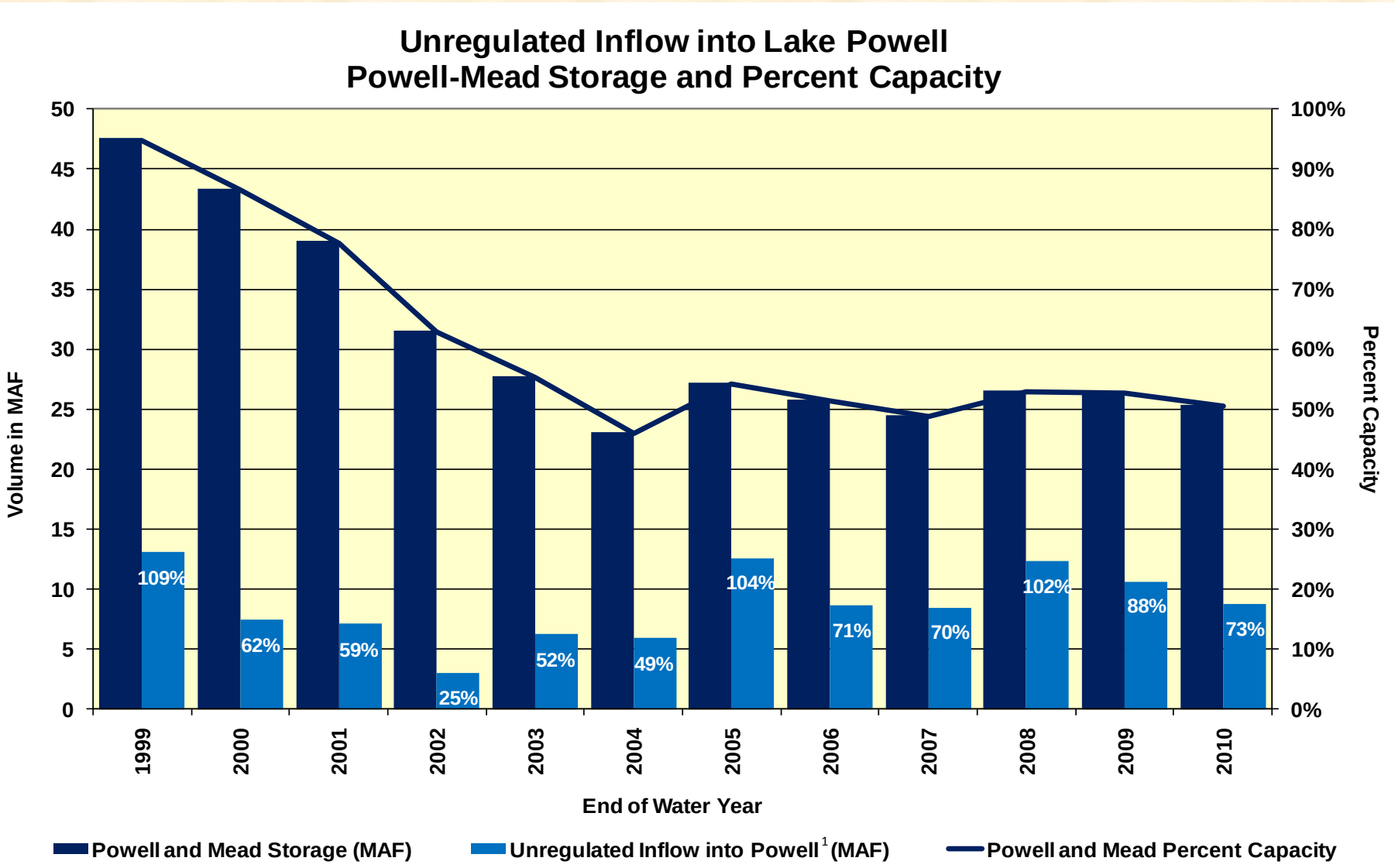
Colorado River Basin Water Supply Outlook



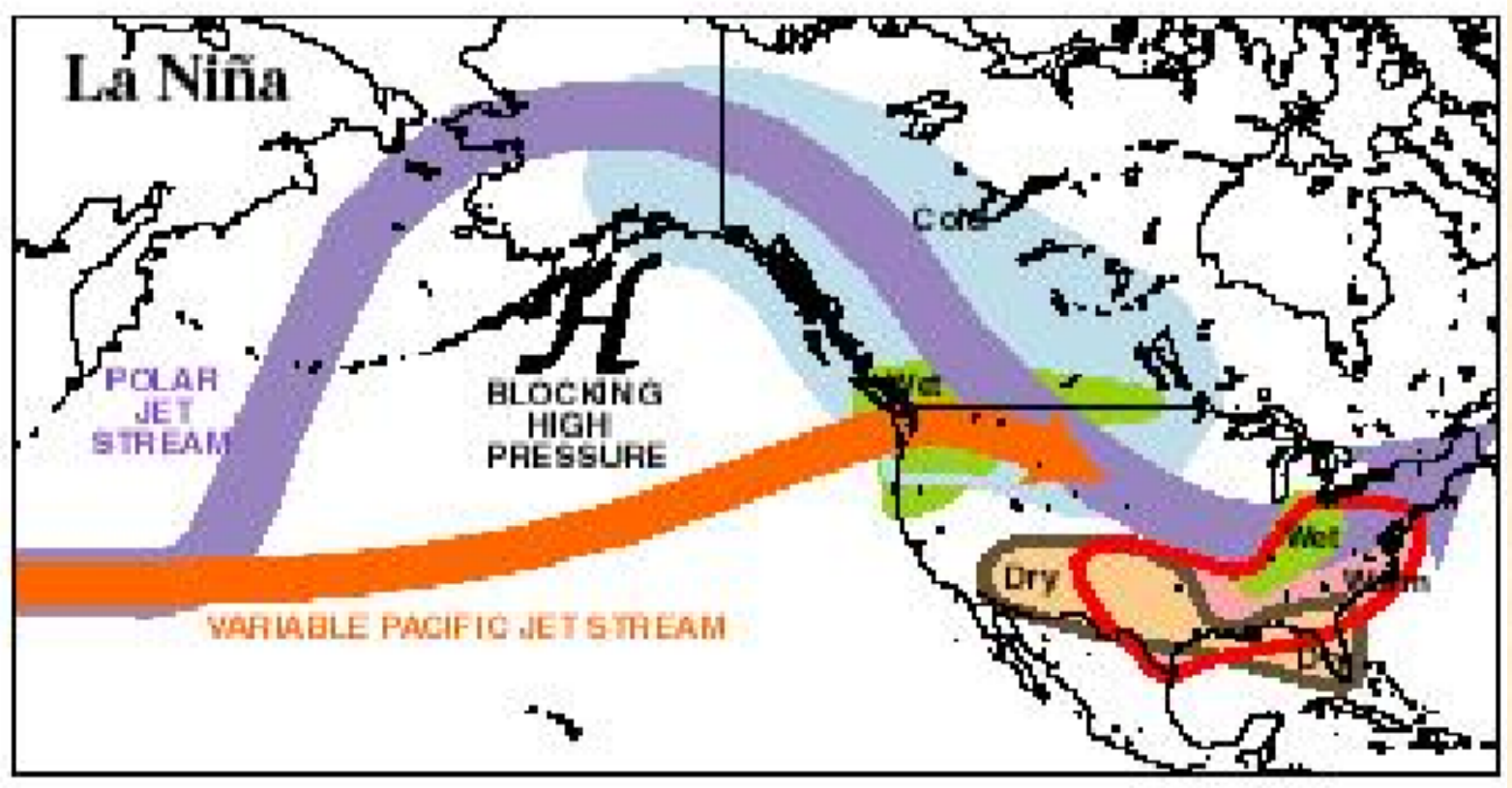
State of the System (1999-2010)

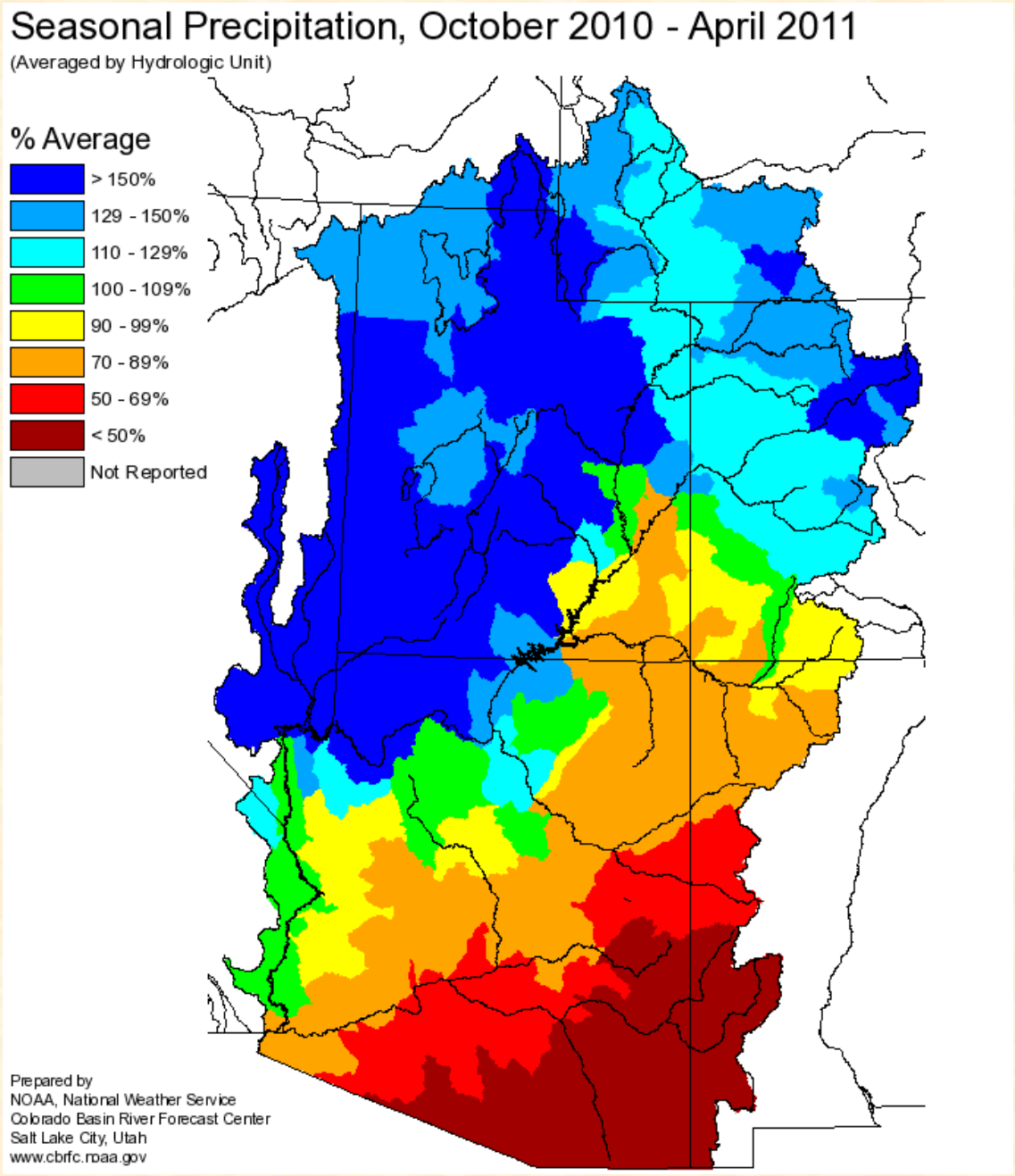


[1] The percent values at the top of the light blue bars represent the percent of average unregulated inflow into Lake Powell for a given water year based on the 30-year average from 1971 to 2000.

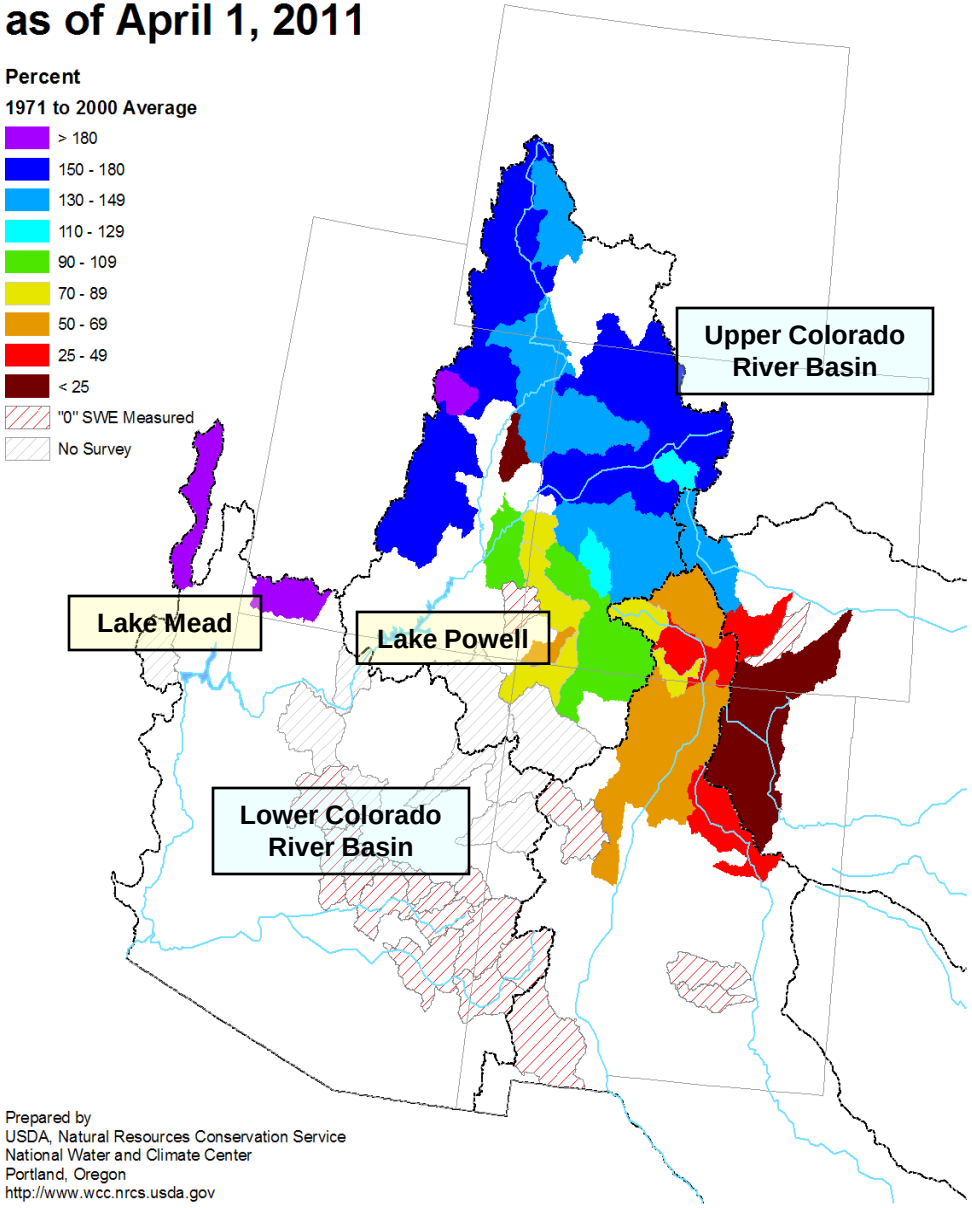
La Nina Year ? ! ?

Good ? Bad ?



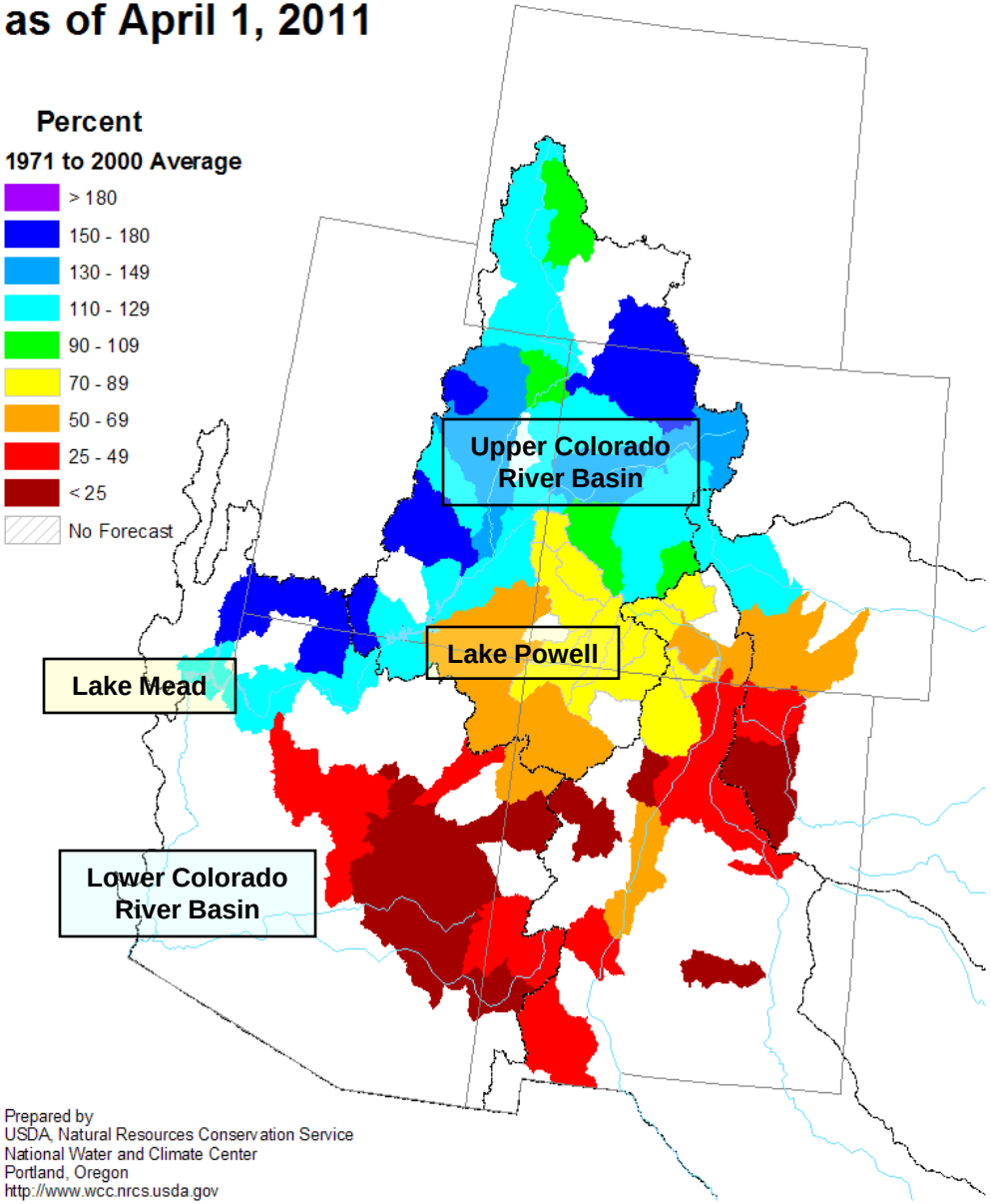

Seasonal Precipitation, October 2010 - April 2011
(Averaged by Hydrologic Unit)
% Average
> 150%
129 - 150%
110 - 129%
100 - 109%
90 - 99%
70 - 89%
50 - 69%
< 50%
Not Reported
Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

Arkansas, Colorado and Rio Grande Basin Mountain Snowpack as of April 1, 2011



Prepared by
USDA, Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov

Arkansas, Colorado and Rio Grande Spring and Summer Streamflow Forecasts as of April 1, 2011



Prepared by
USDA, Natural Resources Conservation Service
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Portland, Oregon
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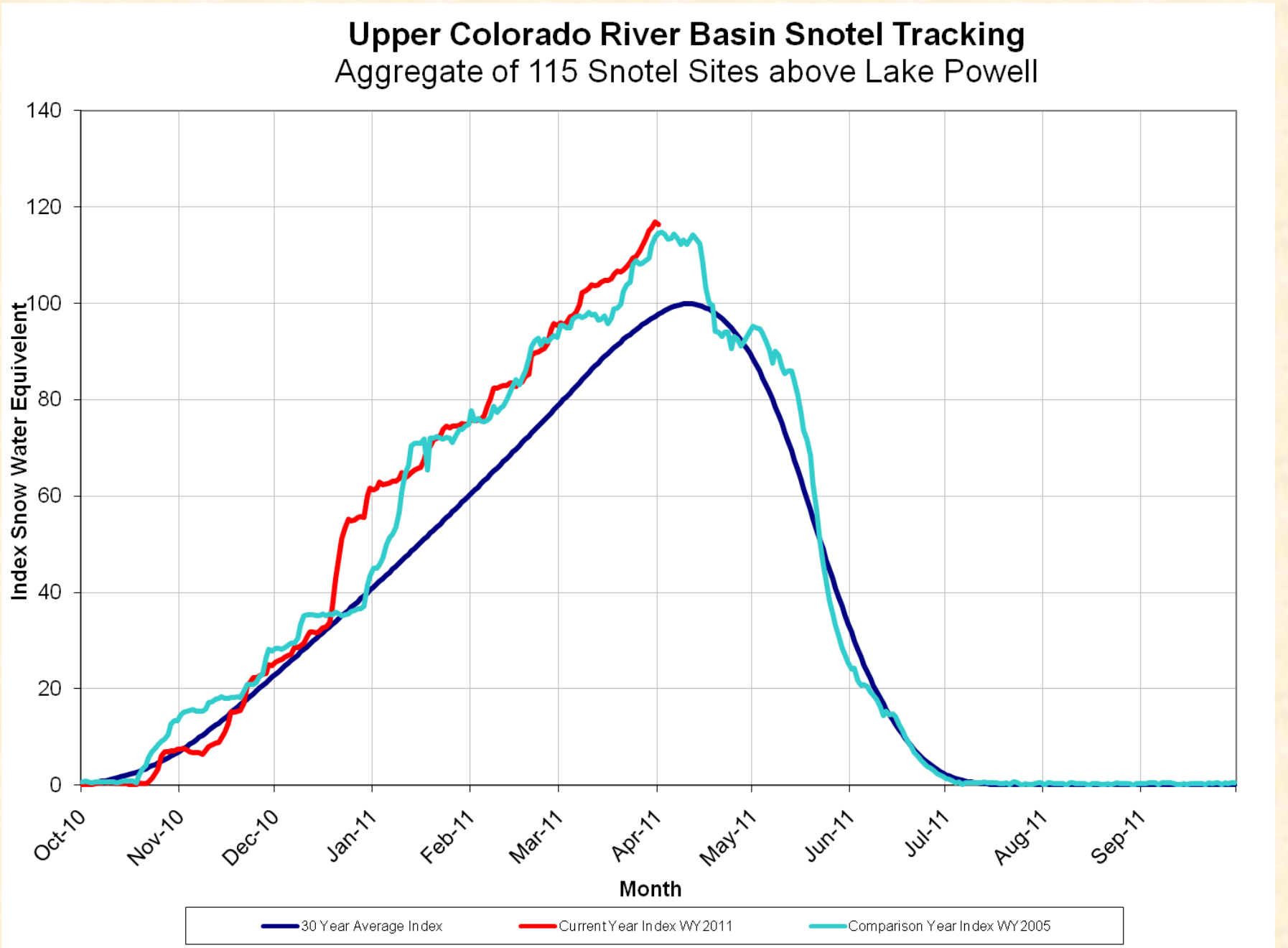

Upper Colorado River Basin Snotel Tracking
Aggregate of 115 Snotel Sites above Lake Powell
Index Snow Water Equivelent
140
120
100
80
60
40
20
0
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Month
30 Year Average Index
Current Year Index WY 2011
Comparison Year Index WY 2005

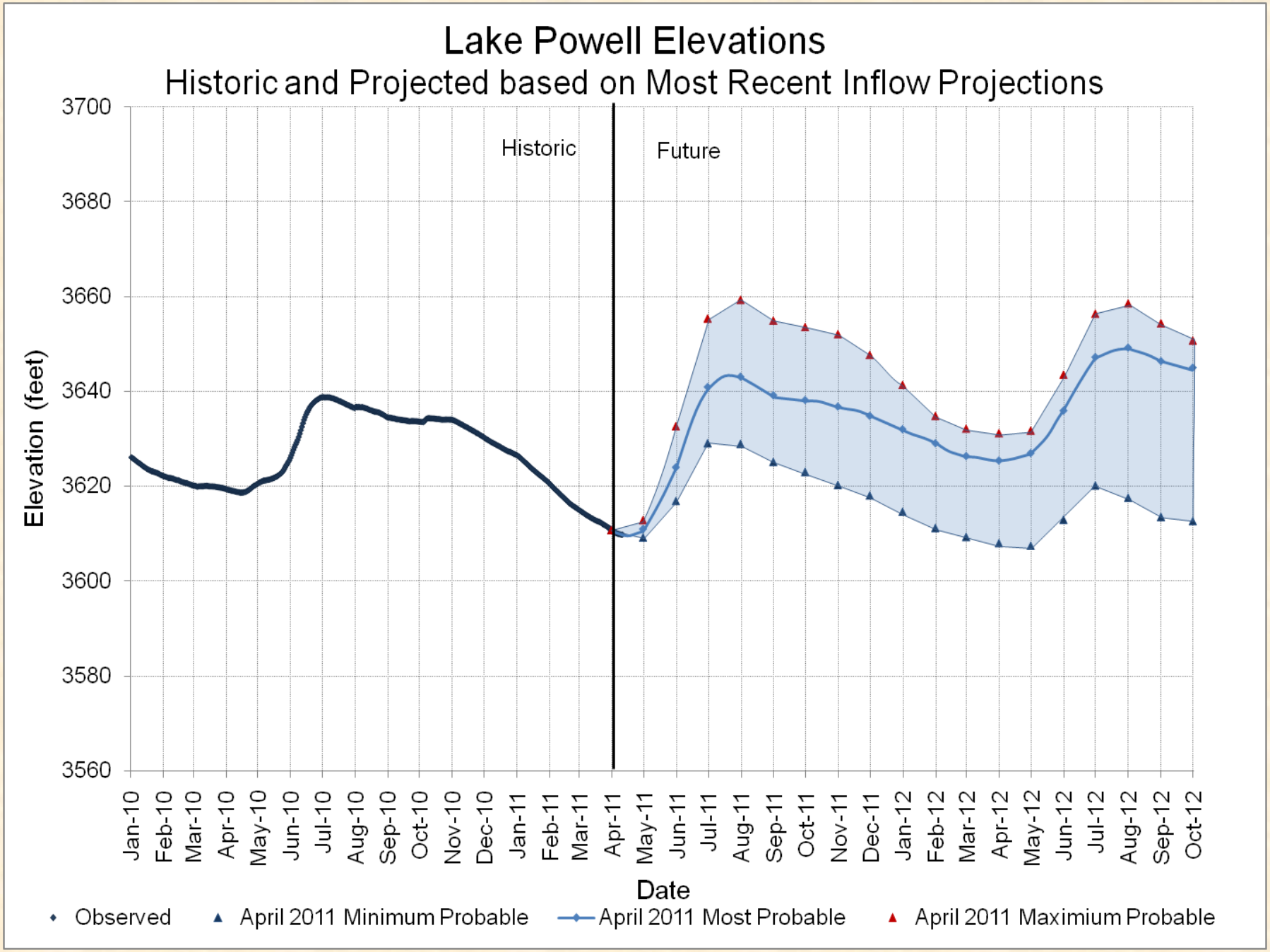
Colorado River Basin Water Supply Outlook

April to June 2011 Inflow Into Lake Powell – 11.5 MAF (145% of Normal).

Water Year 2011 Inflow Into Lake Powell - 13.1 MAF (110% of Normal).

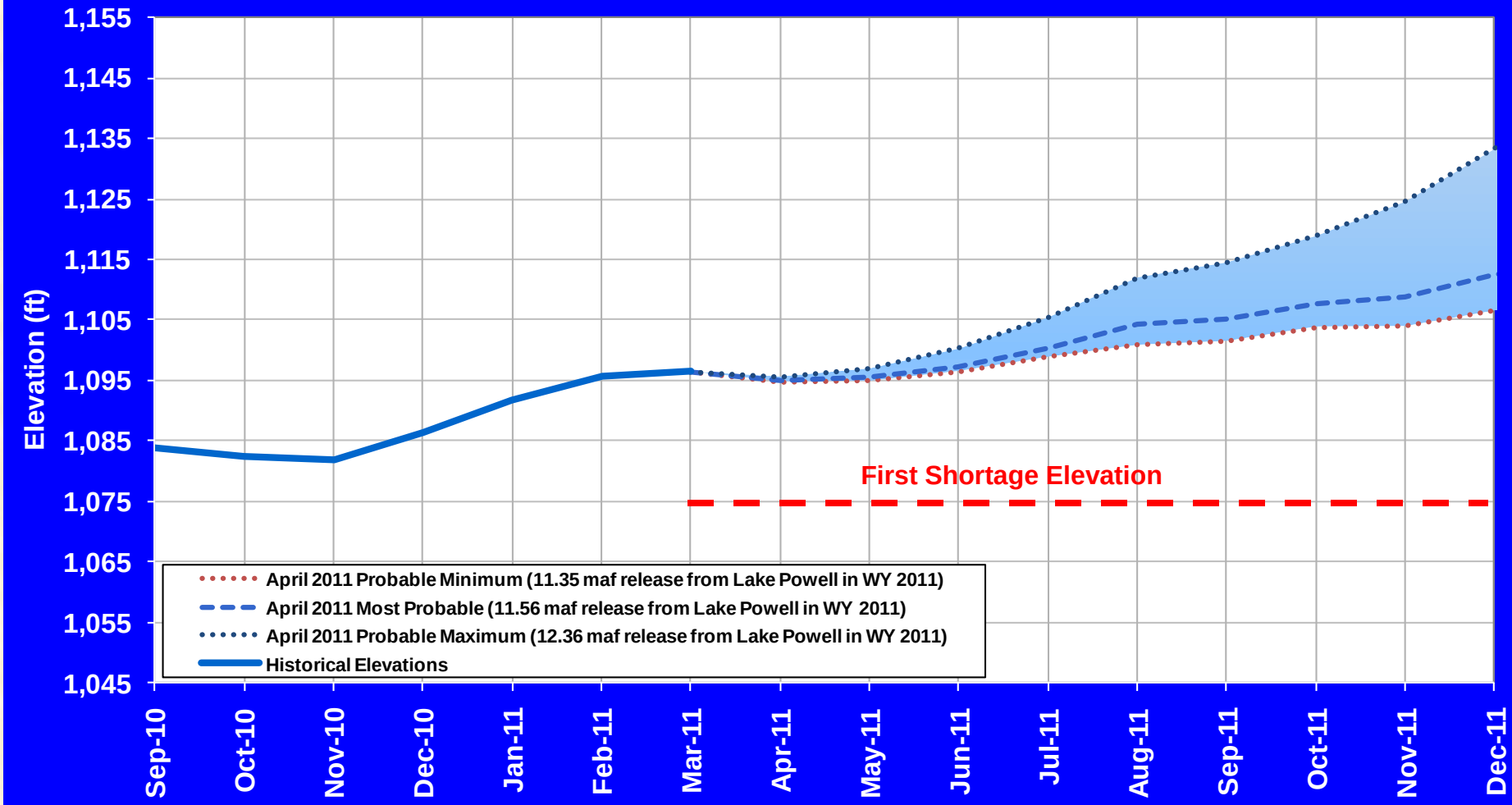
Water Year 2011 Release from Lake Powell – 11.6 MAF Release to the Lower Basin ("Equalization" Release – based on 2007 Interim Operating Guidelines).

Lake Powell and Lake Mead Storage will generally rise for the next several years.


Lake Powell Elevations
Historic and Projected based on Most Recent Inflow Projections
Historic
Future
Elevation (feet)
3700
3680
3660
3640
3620
3600
3580
3560
Jan-10
Feb-10
Mar-10
Apr-10
May-10
Jun-10
Jul-10
Aug-10
Sep-10
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Jan-12
Feb-12
Mar-12
Apr-12
May-12
Jun-12
Jul-12
Aug-12
Sep-12
Oct-12
Date
Observed
April 2011 Minimum Probable
April 2011 Most Probable
April 2011 Maximium Probable

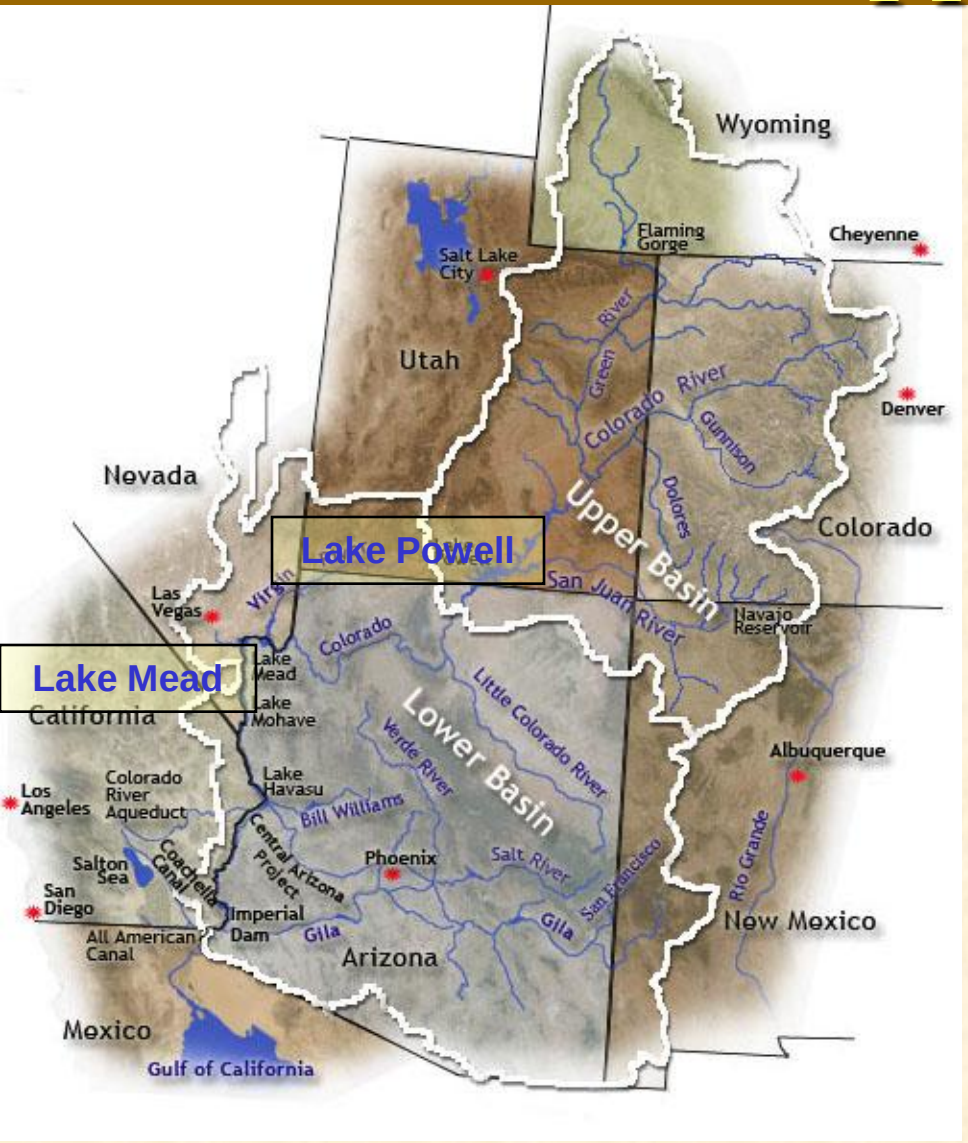
Lake Mead End of Month Elevation

Projections from April 2011 24-Month Study Inflow Scenarios



The projected elevations in this graph are based on reservoir modeling under three possible inflow scenarios: 1) The minimum probable inflow scenario reflects a dry hydrologic condition which statistically would be exceeded 90% of the time; 2) the most probable inflow scenario reflects a median inflow condition which statistically would be exceeeded 50% of the time; and 3) the maximum probable inflow scenario reflects a wet hydrologic condition which statistically would be exceeded only 10% of the time. There is approximately an 80% probability that the future elevation will fall inside the shaded region. There are possible inflow scenarios that would result in reservoir elevations falling outside the range indicated in this graph.

Colorado River Basin Water Supply Outlook

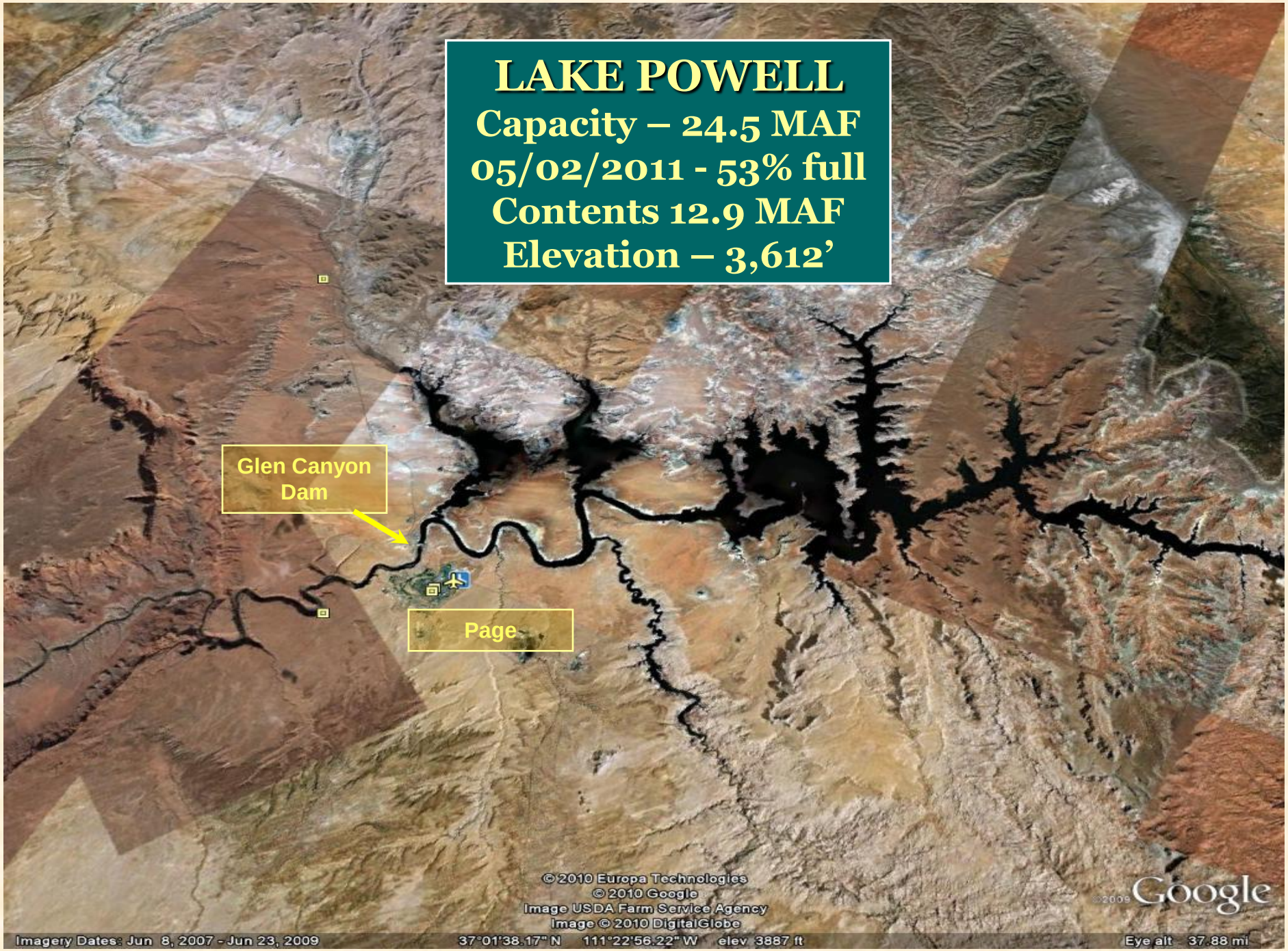


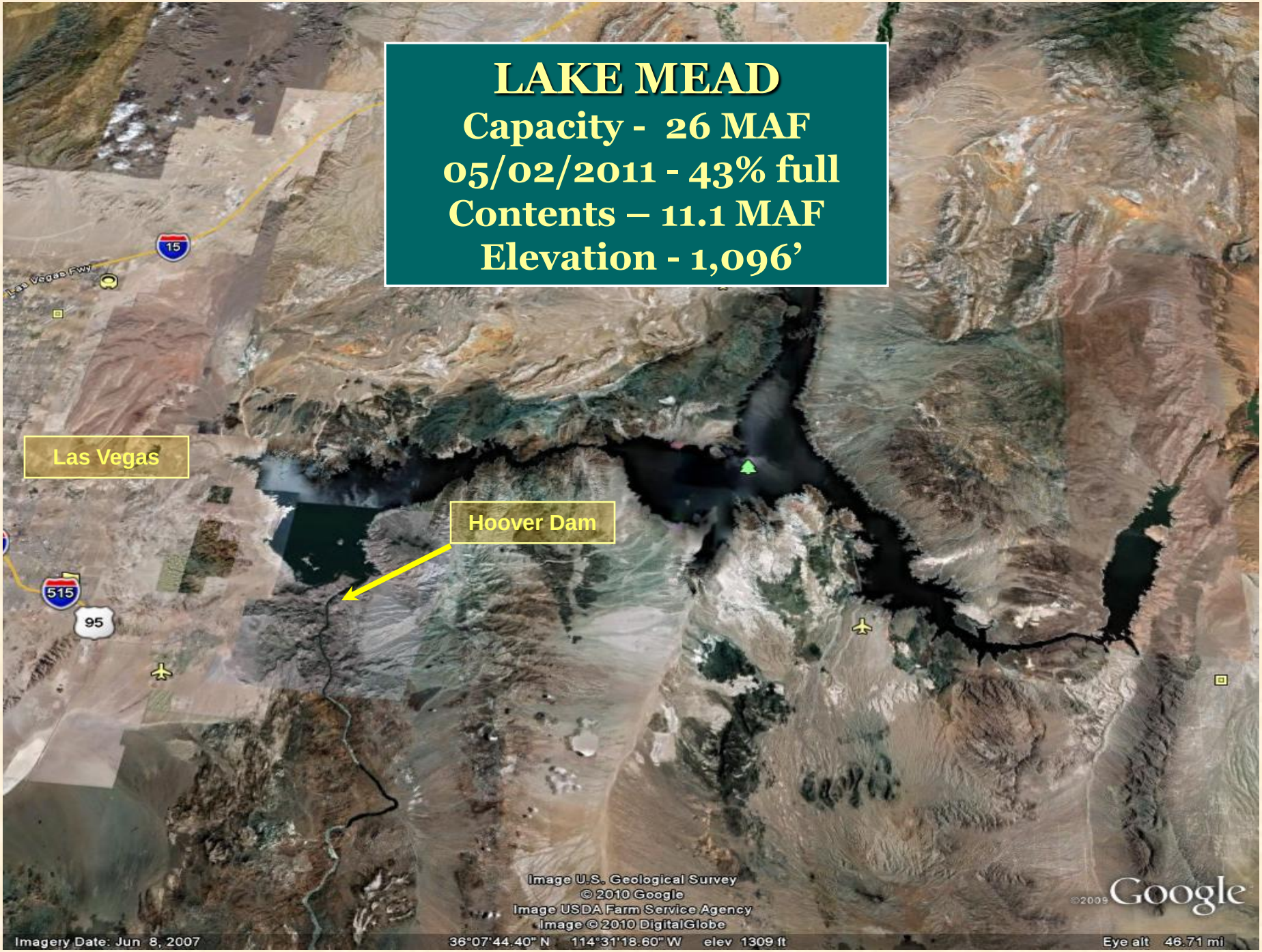
Total Reservoir System Contents:

31.6 MAF or 53%

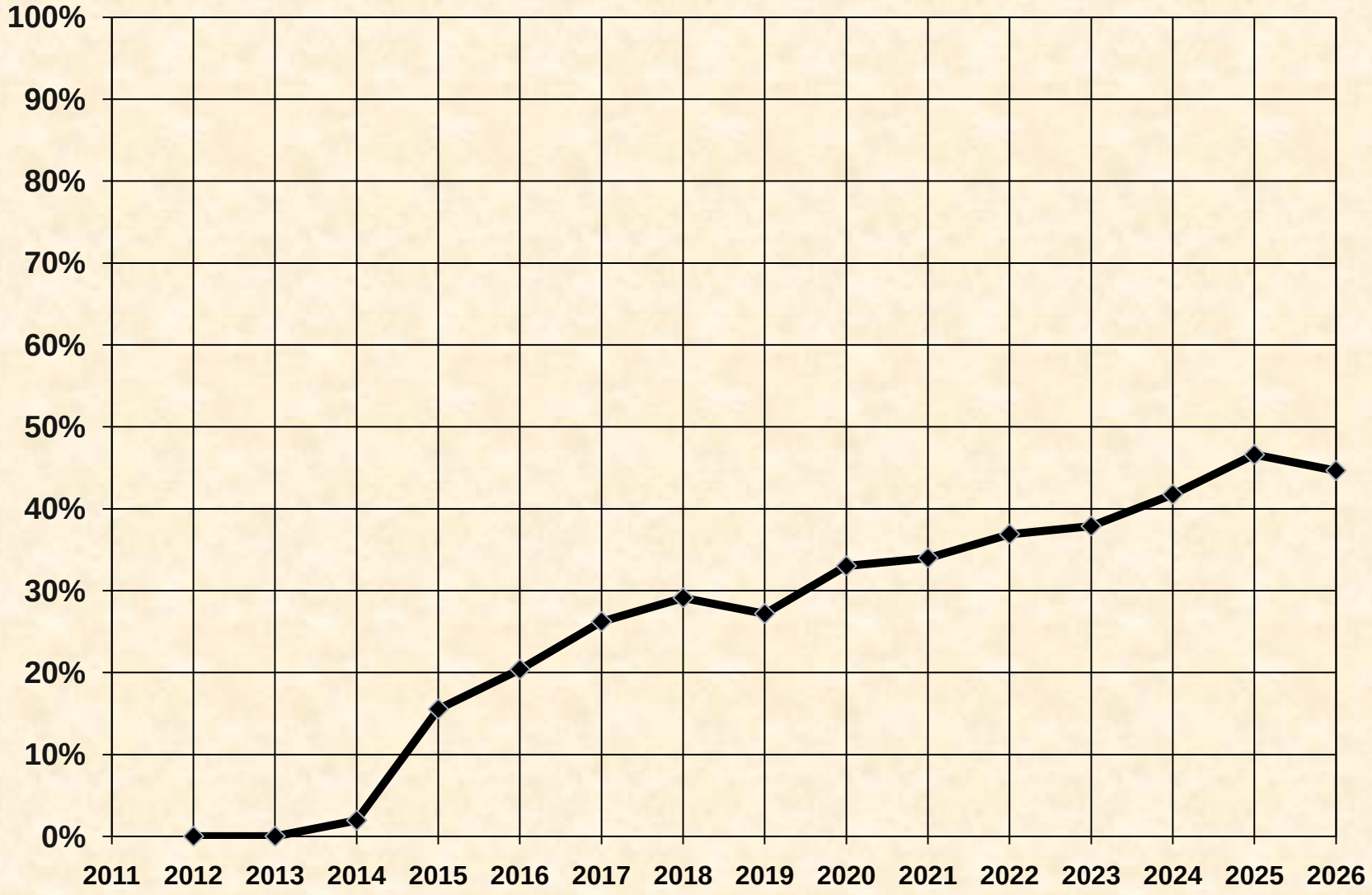
Total Reservoir System Contents Last Year:

32.9 MAF or 55%


LAKE POWELL
Capacity – 24.5 MAF
05/02/2011 - 53% full
Contents 12.9 MAF
Elevation – 3,612’
Glen Canyon Dam
Page
© 2010 Europa Technologies
© 2010 Google
Image USDA Farm Service Agency
Image © 2010 DigitalGlobe
Imagery Dates: Jun 8, 2007 - Jun 23, 2009
37°01'38.17" N 111°22'56.22" W elev 3887 ft
Eye alt 37.88 mi
Google


LAKE MEAD
Capacity - 26 MAF
05/02/2011 - 43% full
Contents – 11.1 MAF
Elevation - 1,096'
Las Vegas
Hoover Dam
15
Las Vegas Fwy
515
95
Image U.S. Geological Survey
© 2010 Google
Image USDA Farm Service Agency
Image © 2010 DigitalGlobe
©2009 Google
Imagery Date: Jun 8, 2007
36°07'44.40" N 114°31'18.60" W elev 1309 ft
Eye alt 46.71 mi

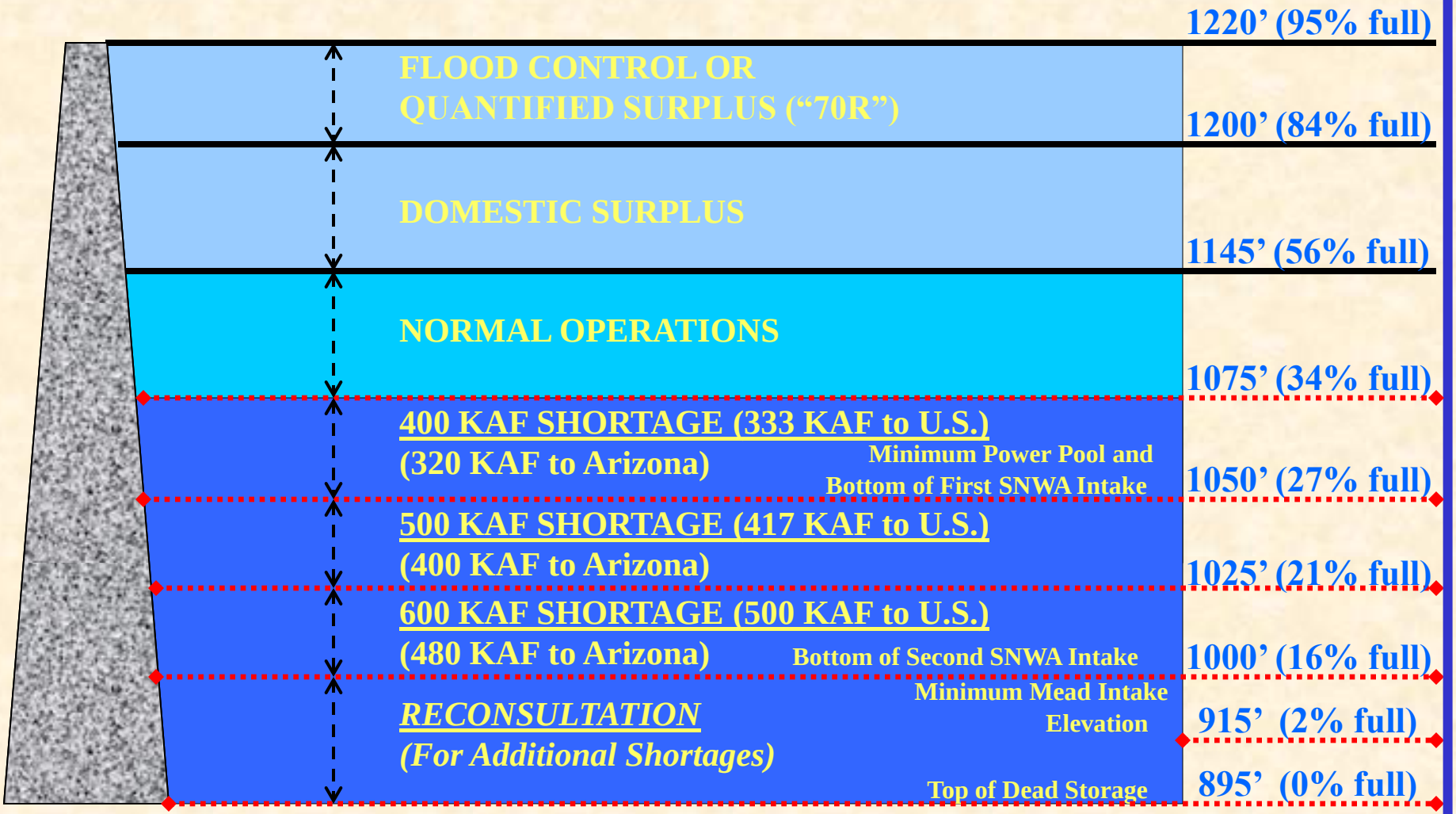
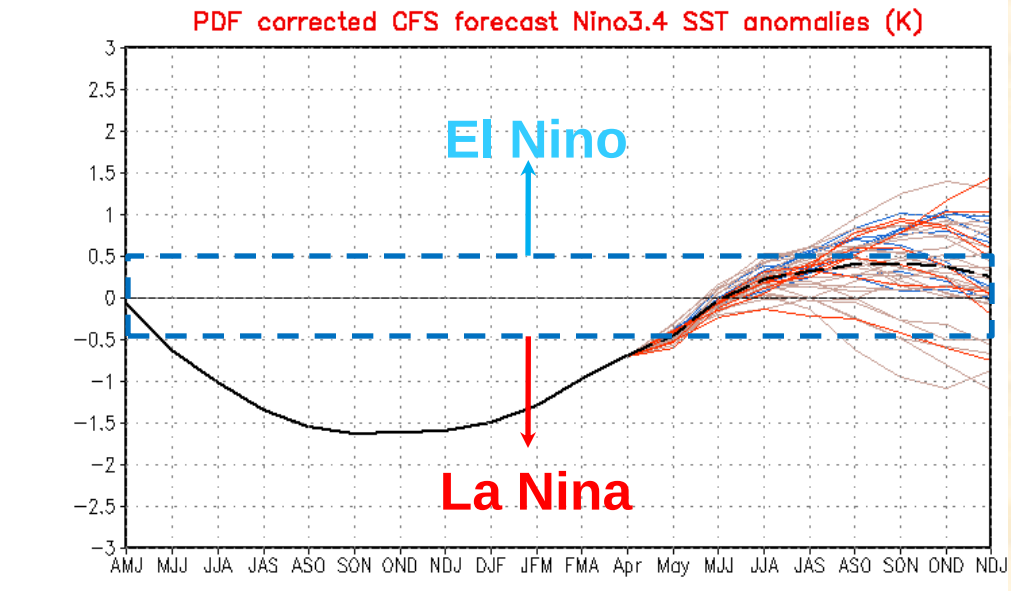
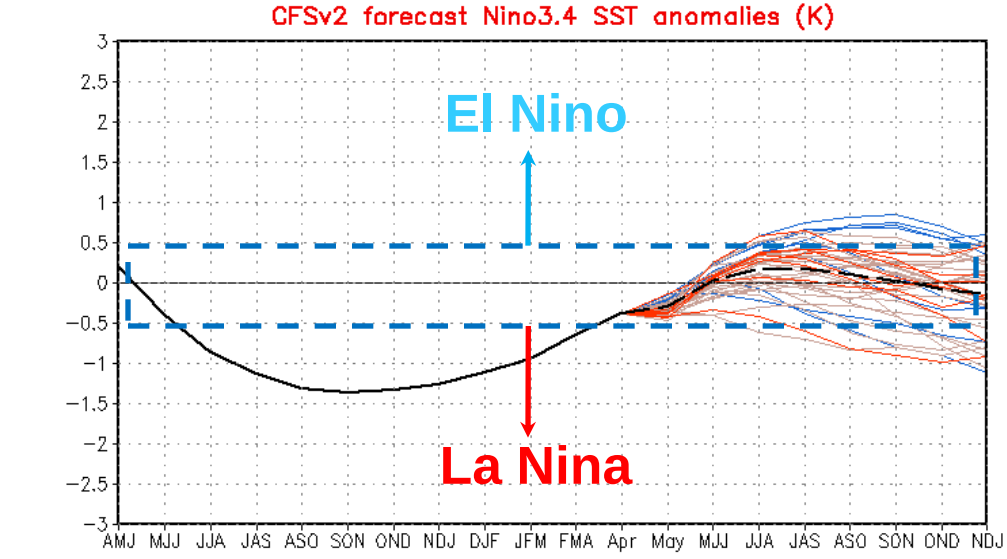
Lower Colorado River Basin
Chance of a Shortage



Source: Bureau of Reclamation

Lake Mead

Key Operational Elevations – Interim Period



What About Next Year?
La Nina Year ? ! ?
El Nino Year ? ! ?