RECLAMATION

Managing Water in the West

Colorado River System: Current Conditions and Near-Term Outlook

Colorado River Water Users Association
2013 Annual Conference
Las Vegas, NV
December 11-13, 2013

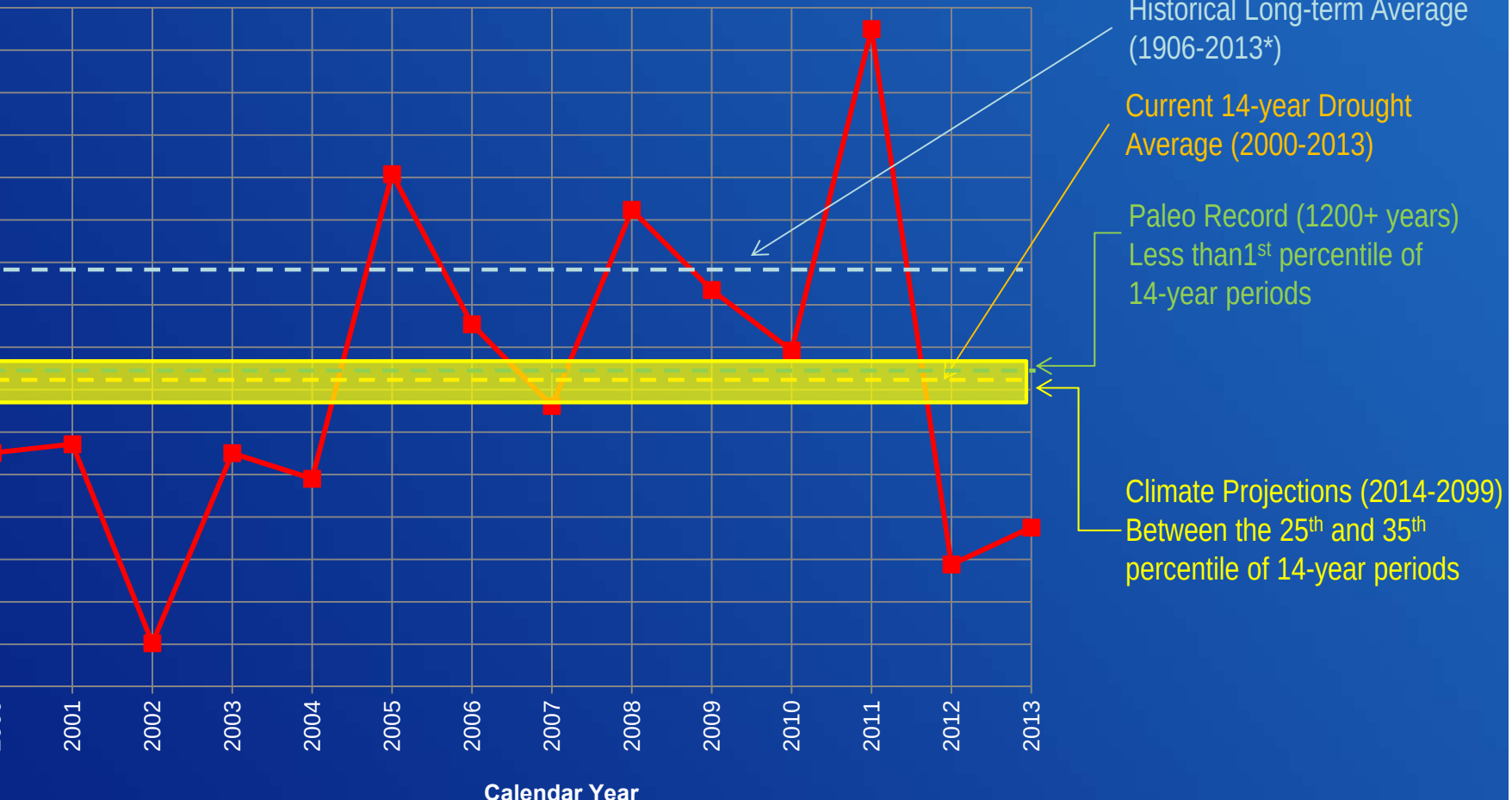
U.S. Department of the Interior
Bureau of Reclamation

Presentation Overview

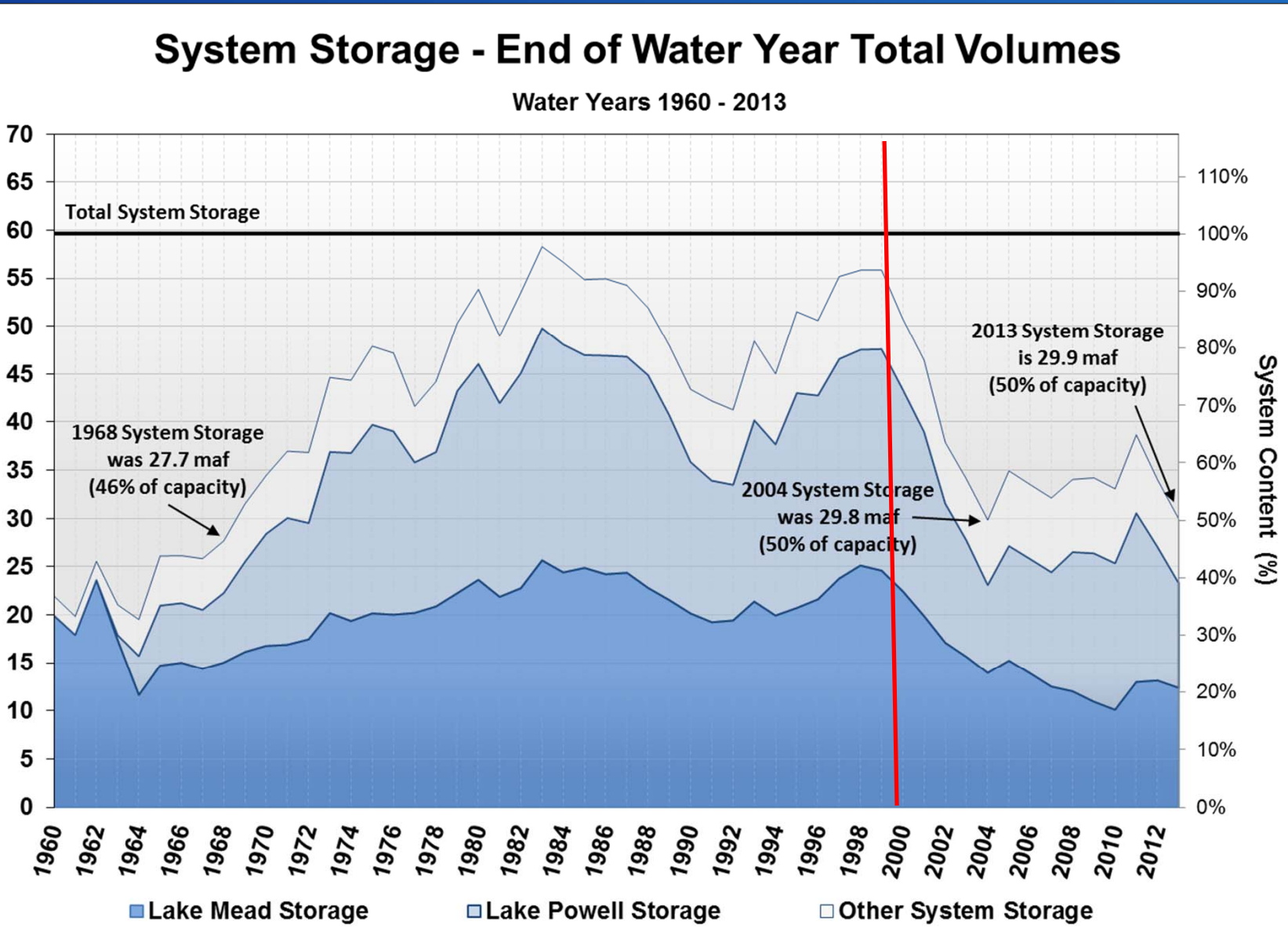
- Current Drought and Reservoir Conditions
- Projected Reservoir Elevations
- Extended Drought Scenario
- Volumes to Avoid Critical Elevations
- Summary

Current 14-year Drought (2000-2013)

atural Flow at Lees Ferry



System Storage - End of Water Year Total Volumes

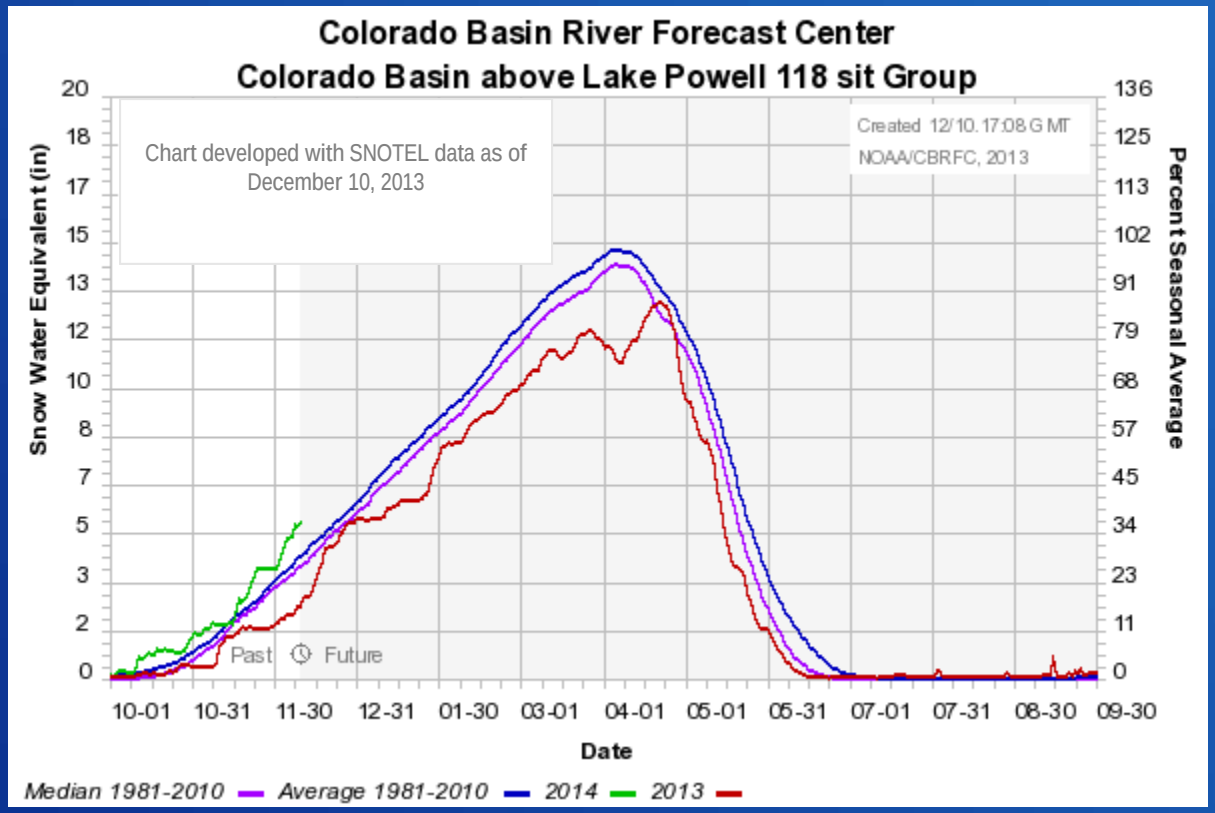


ater Year Snowpack and Precipitation
of December 10, 2013

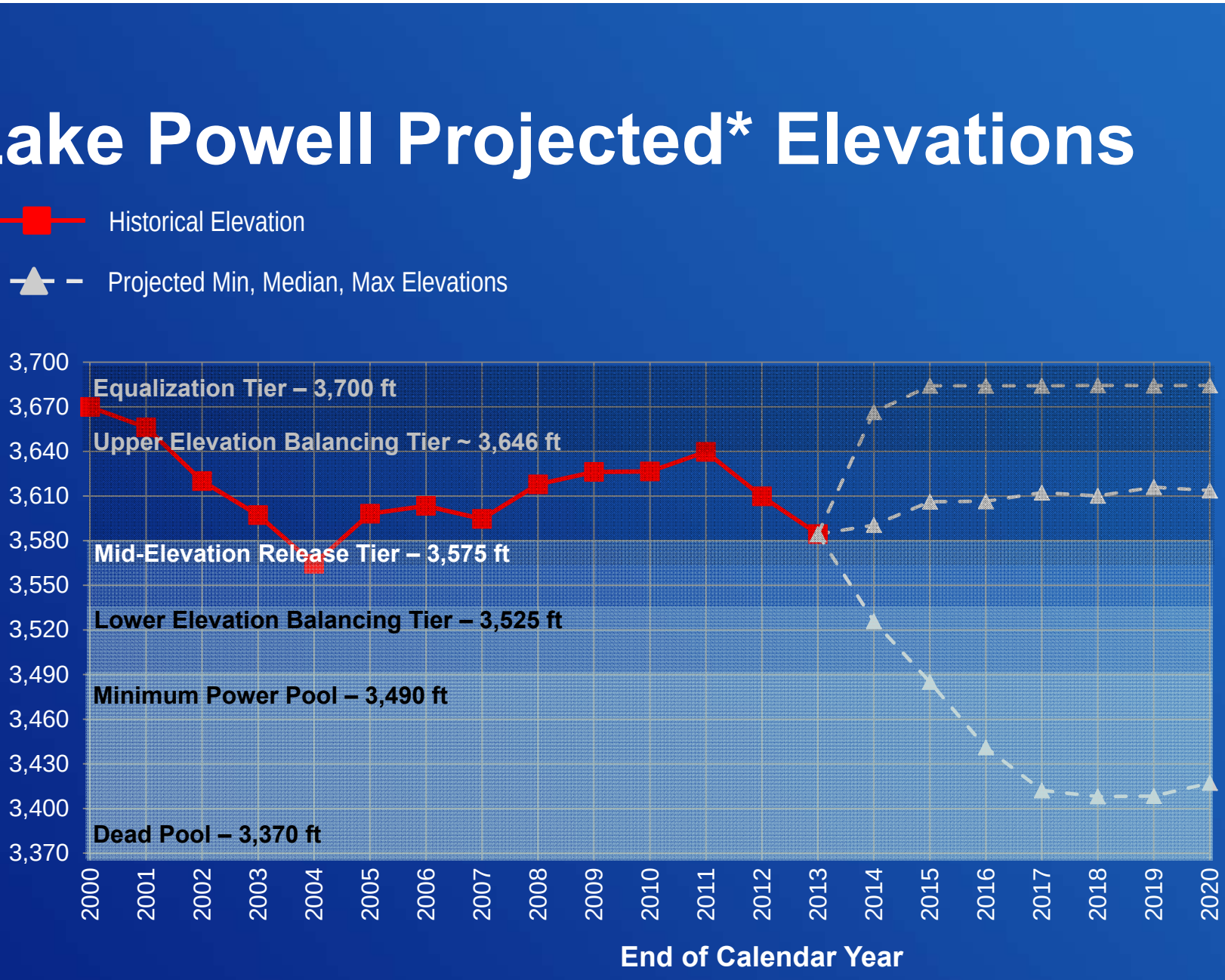
Colorado River asin above Lake Powell

/ater Year 2014 Precipitation[1] (year-to-date) 10% of average

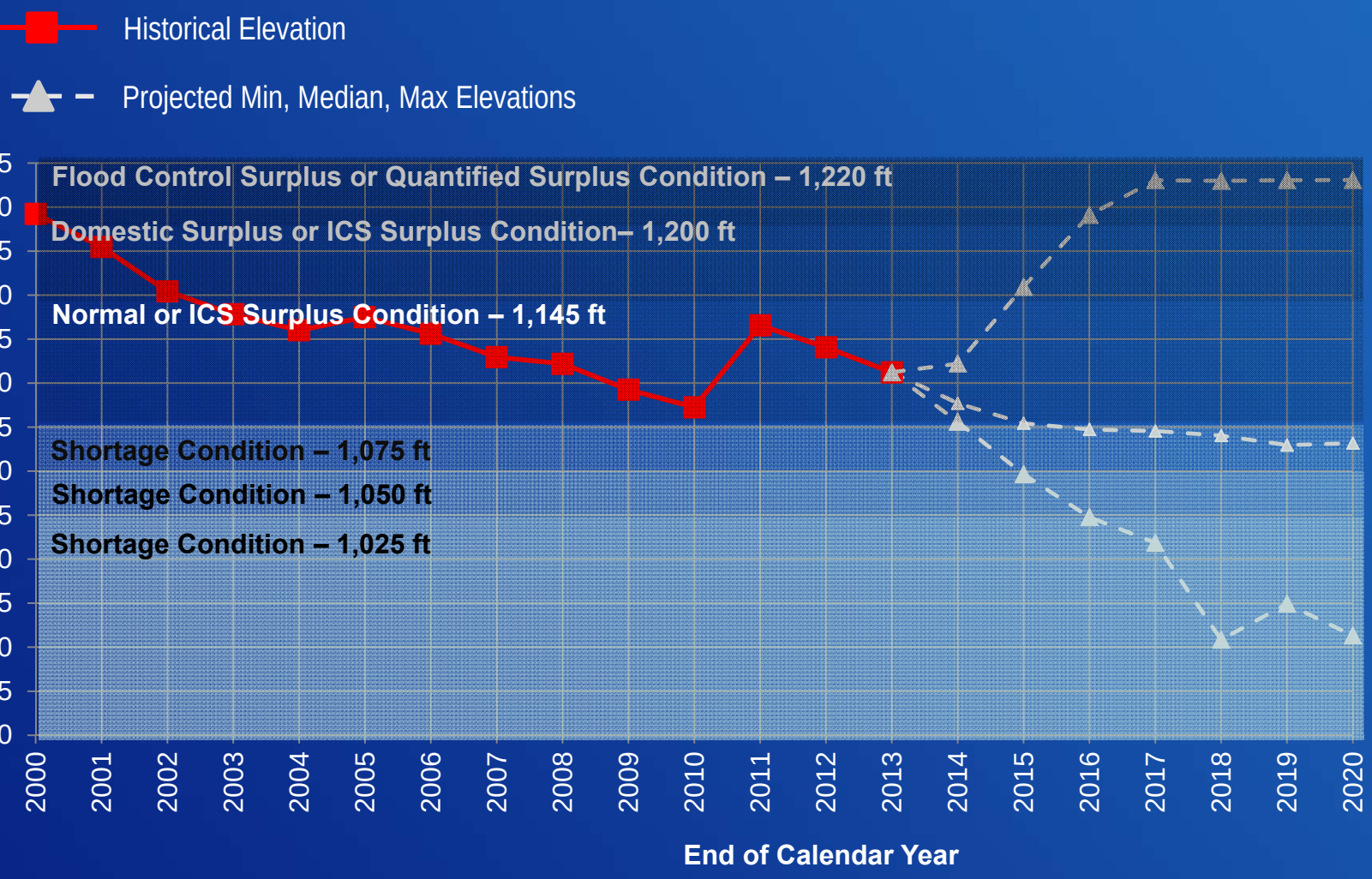
Current Snowpack[1] 27% of average



ake Powell Projected* Elevations



ake Mead Projected* Elevations



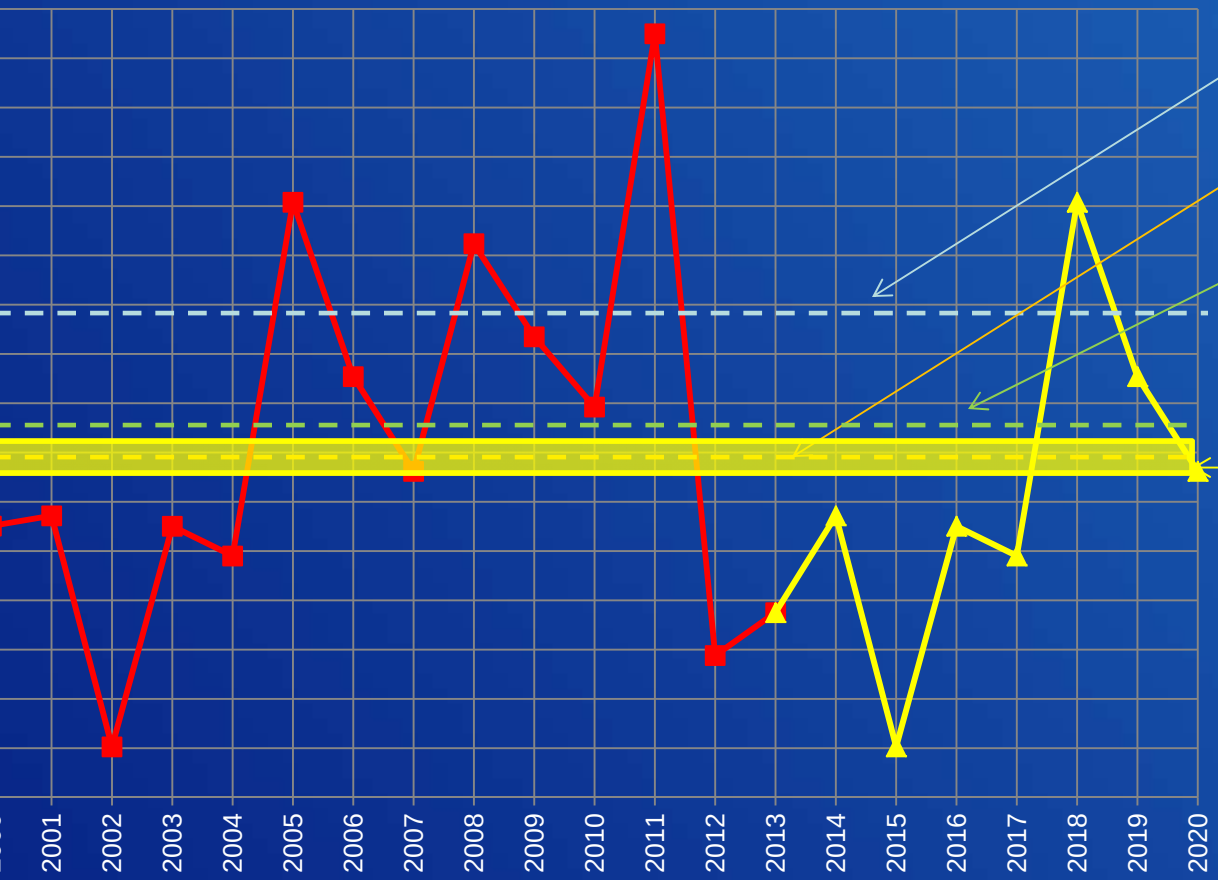
rcent of Traces with Event or System Condition
ults from October 2013 CRSS[1,2] (values in percent)

Event or System Condition	2014[3]	2015	2016	2017	2018
Equalization Tier	**0**	**17**	**23**	**30**	**29**
Equalization – annual release > 8.23 maf	*0*	*17*	*22*	*30*	*29*
Equalization – annual release = 8.23 maf	*0*	*<1*	*1*	*<1*	*<1*
Upper Elevation Balancing Tier	**0**	**50**	**51**	**45**	**41**
Upper Elevation Balancing – annual release > 8.23 maf	*0*	*8*	*30*	*34*	*30*
Upper Elevation Balancing – annual release = 8.23 maf	*0*	*42*	*21*	*11*	*11*
Upper Elevation Balancing – annual release < 8.23 maf	*0*	*<1*	*<1*	*<1*	*<1*
Mid-Elevation Release Tier	**100**	**33**	**17**	**13**	**19**
Mid-Elevation Release – annual release = 8.23 maf	*0*	*<1*	*<1*	*1*	*1*
Mid-Elevation Release – annual release = 7.48 maf	*100*	*33*	*17*	*12*	*18*
Lower Elevation Balancing Tier	**0**	**<1**	**9**	**12**	**11**
Shortage Condition – any amount (Mead ≤ 1,075 ft)	**0**	**<1**	**44**	**54**	**54**
Shortage – 1st level (Mead ≤ 1,075 and ≥ 1,050)	*0*	*<1*	*43*	*44*	*32*
Shortage – 2nd level (Mead < 1,050 and ≥ 1,025)	*0*	*<1*	*1*	*9*	*18*
Shortage – 3rd level (Mead < 1,025)	*0*	*<1*	*<1*	*1*	*4*
Surplus Condition – any amount (Mead ≥ 1,145 ft)	**0**	**<1**	**4**	**7**	**13**
Surplus – Flood Control	*0*	*<1*	*<1*	*1*	*2*
Normal or ICS Surplus Condition	**100**	**>99**	**52**	**39**	**33**

rvoir initial conditions based on projected levels on December 31, 2013, from the October 2013 24-Month Study

xtended 21-year Drought (2000-2020)

atural Flow at Lees Ferry



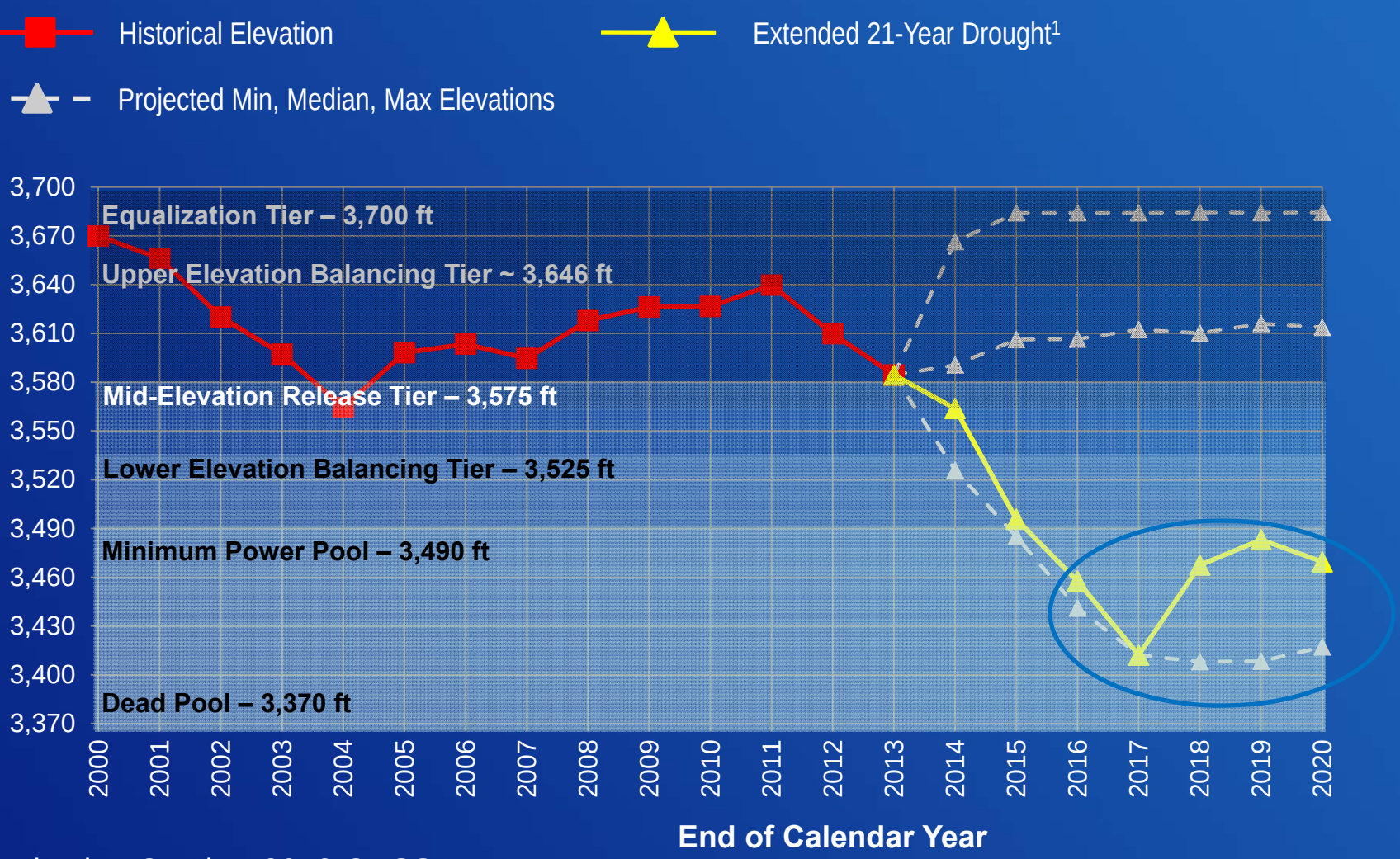
Historical Long-term Average (1906-2013*)

Extended 21-year Drought Average (2000-2020)

Paleo Record (1200+ years) Less than1st percentile of 21-year periods

Climate Projections (2014-2099) Between the 20th and 30th percentile of 21-year periods

ake Powell Projected* Elevations



ted using October 2013 CRSS

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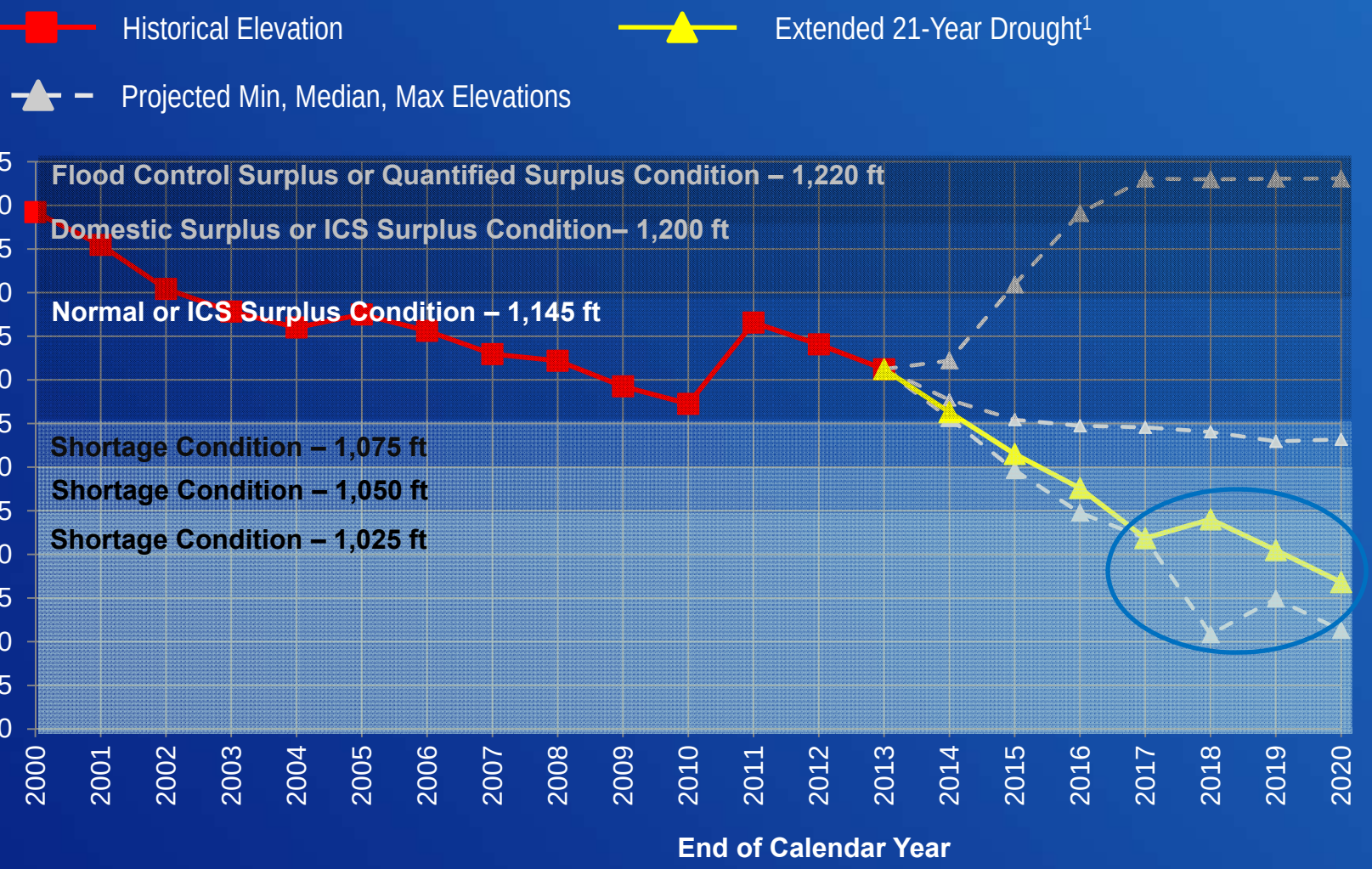

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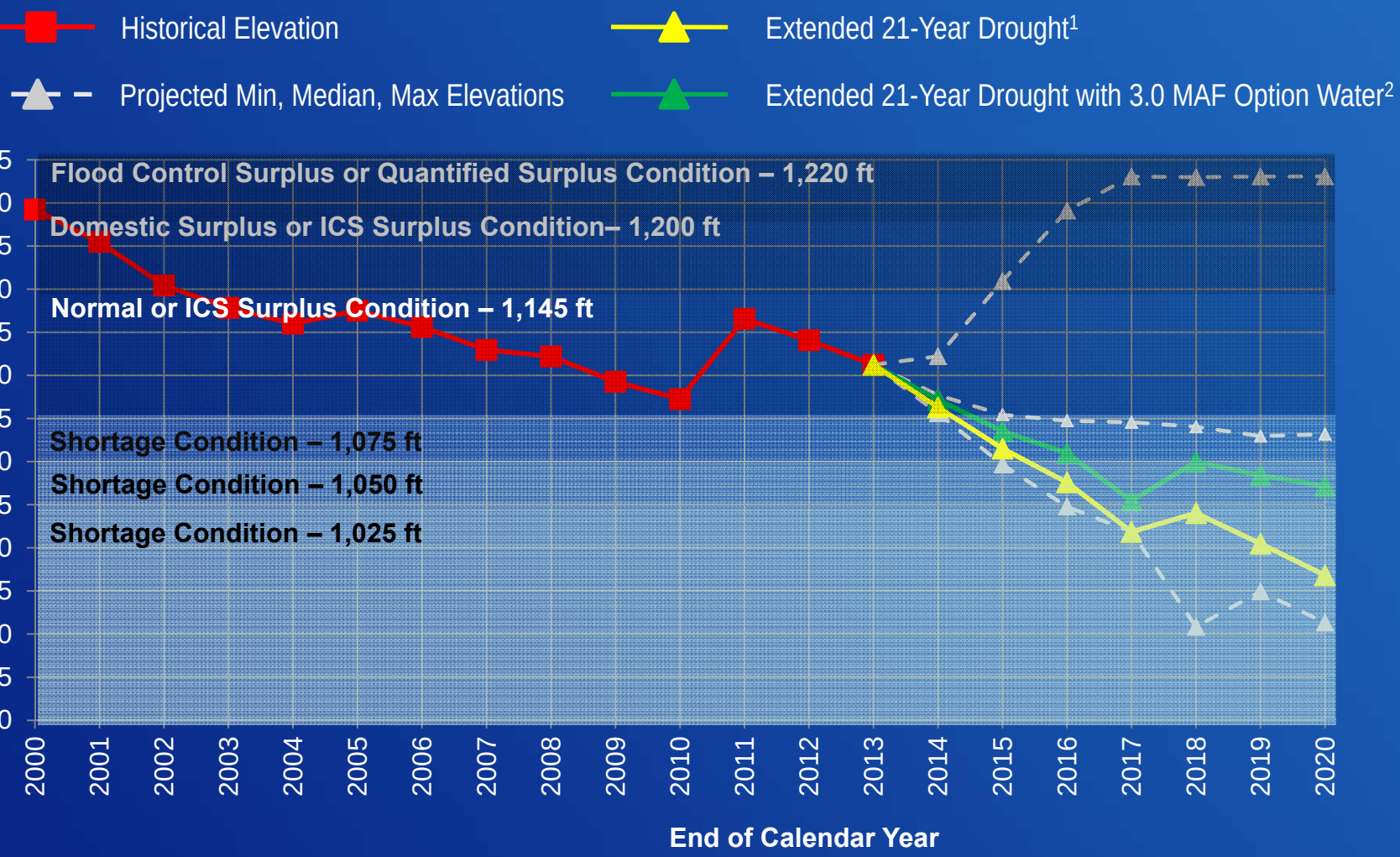

ted using October 2013 CRSS

Summary

- Fortunate to start the drought in 2000 with nearly full system conditions
- Too early to tell what runoff might be like this water year
- A wide range of future outcomes is possible through 2020, including an “extended drought”
- Putting water back into the system, through a range of options, improves system resiliency and helps to avoid critical reservoir elevations

Thank You

For further information:

www.usbr.gov/lc/riverops.html