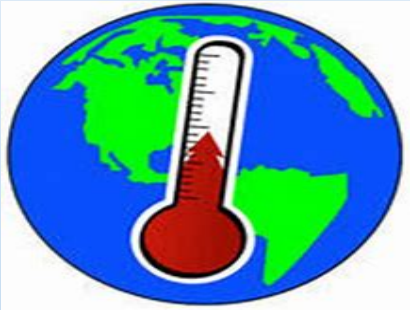
Climate Change, Colorado River and the Poudre River

Source: www.cwcb.state.co.us



Jennifer Gimbel

Colorado Water Center

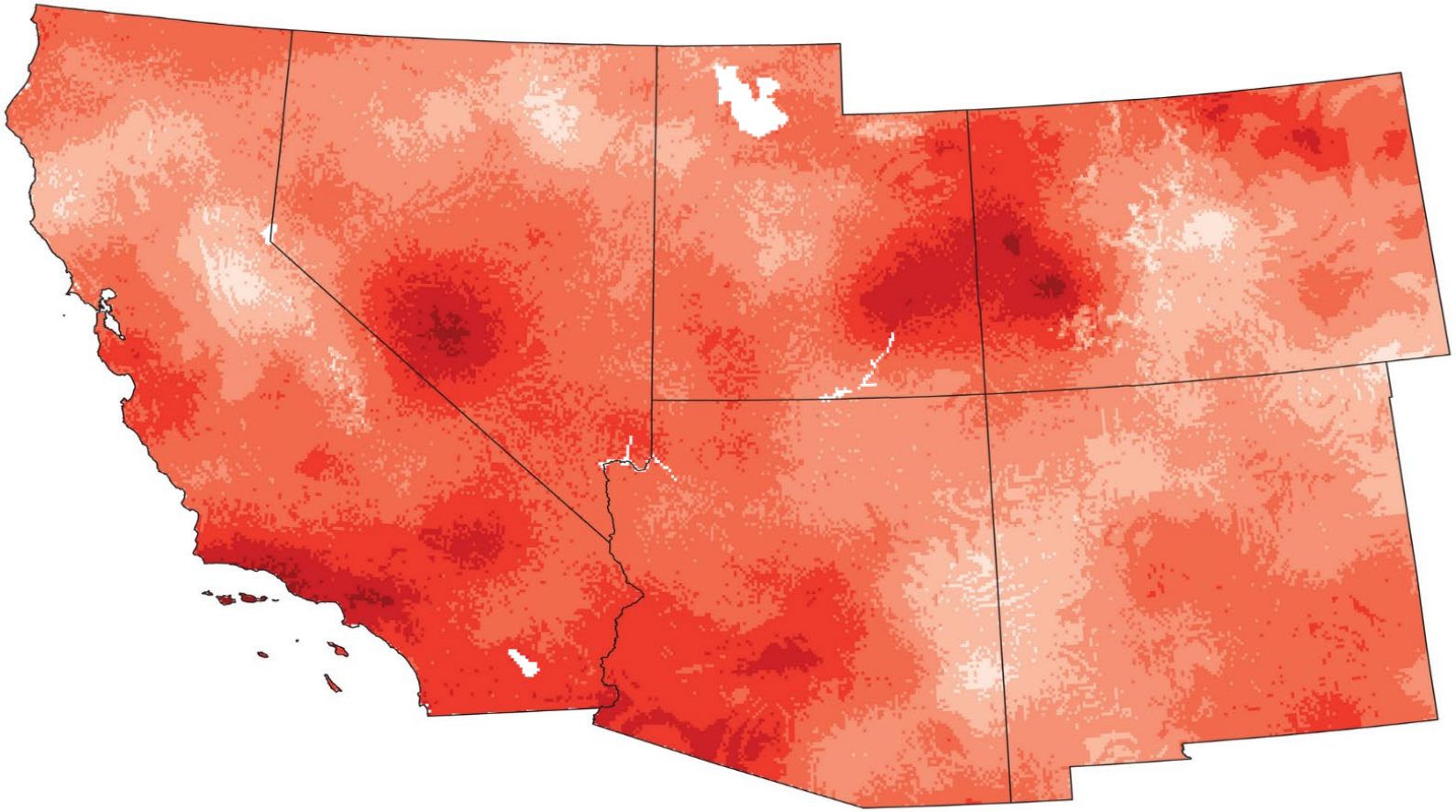
Colorado State University

2019 Poudre River Forum

February 1, 2019

Source: www.nps.gov

Climate Change



Change in Temperature (°F)

0.5 1.0 1.5 2.0 2.5 3.0

Source: www.nca2018globalchange.gov

Climate Change Effects

Source: Public Domain

- Less snow pack
- More rain

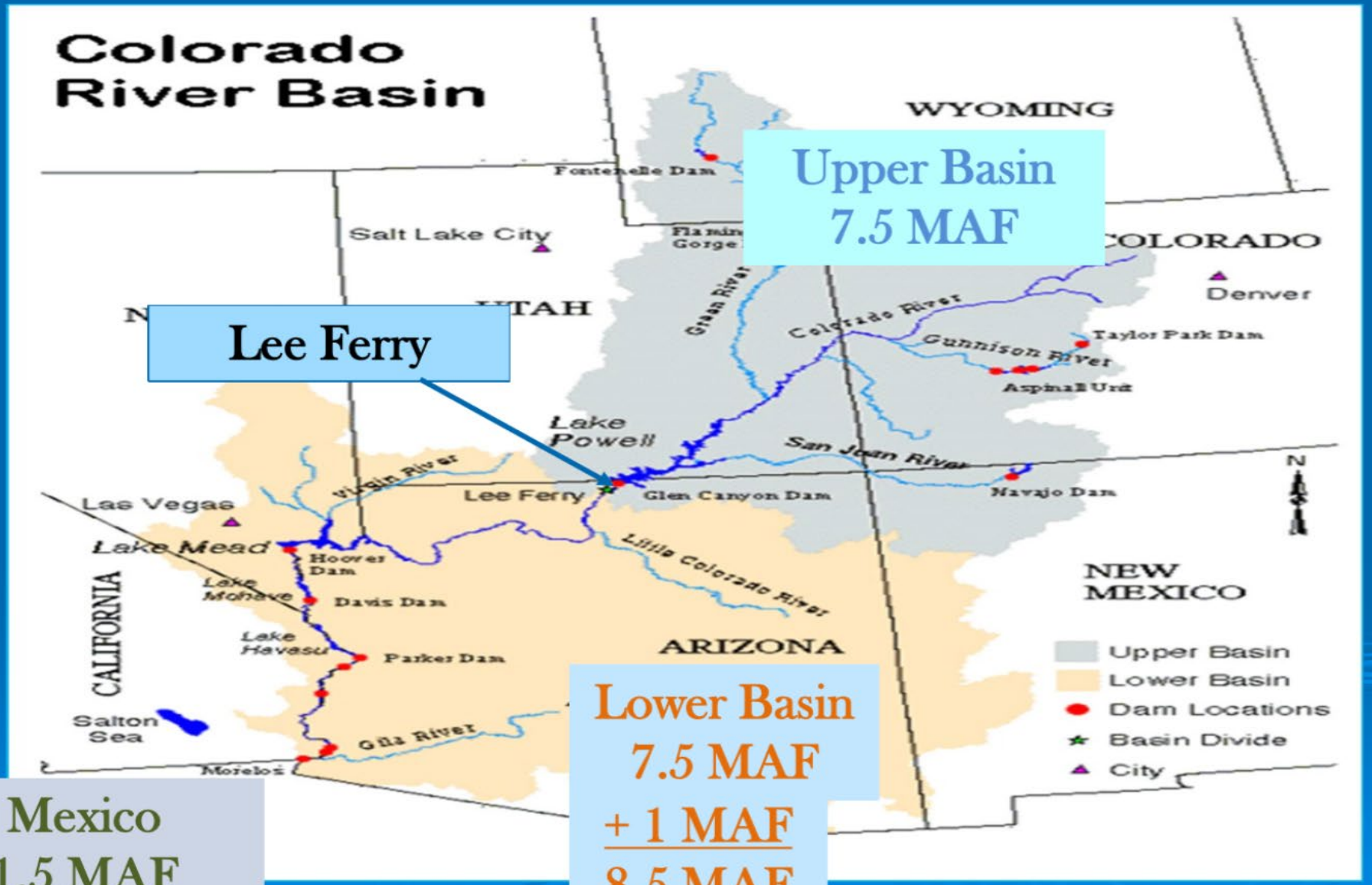
Source: Public Domain

- Earlier runoff
- Decreased streamflows

Source: Public Domain

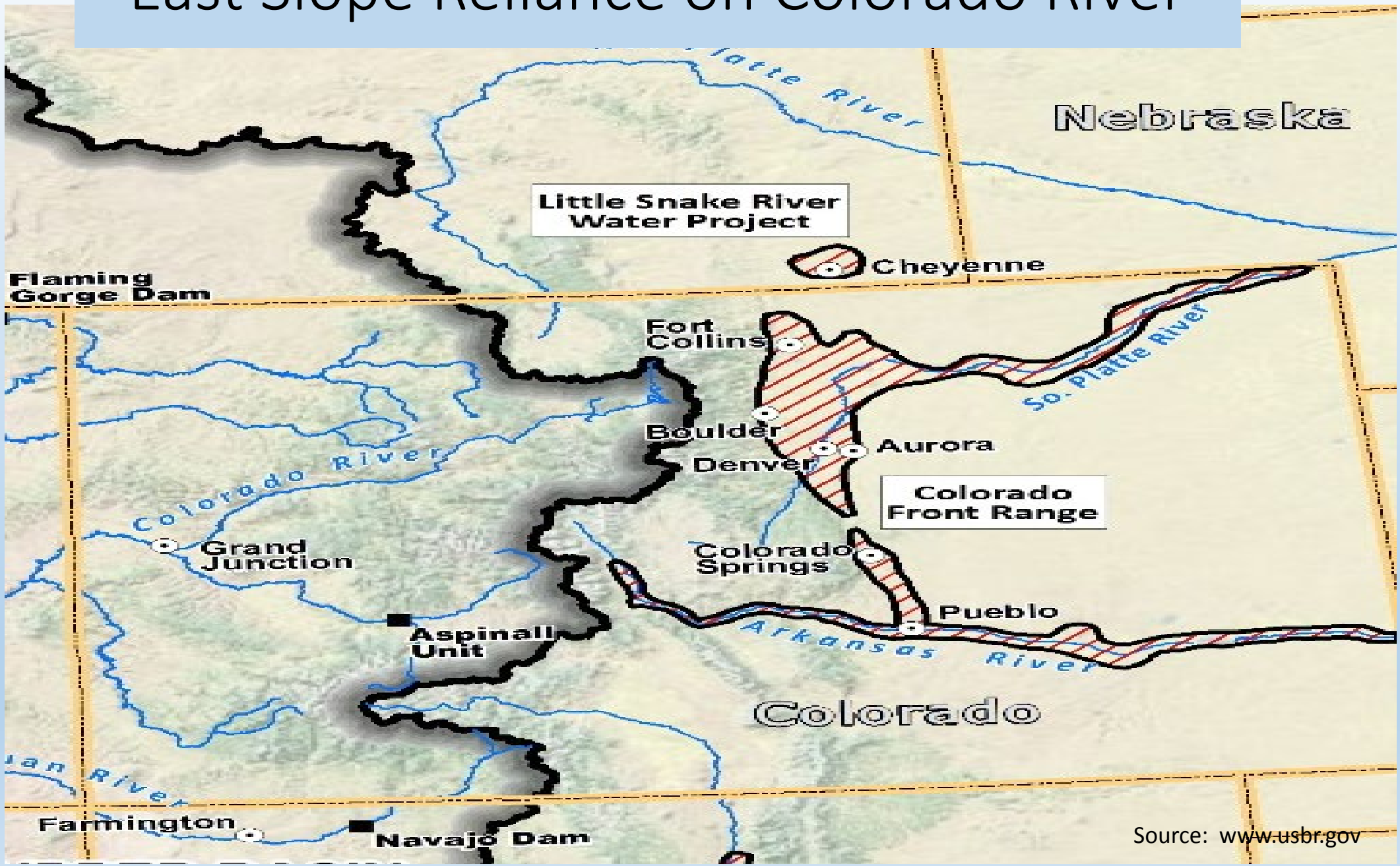
- Increased water demand for crops

Colorado River Compact, 1922



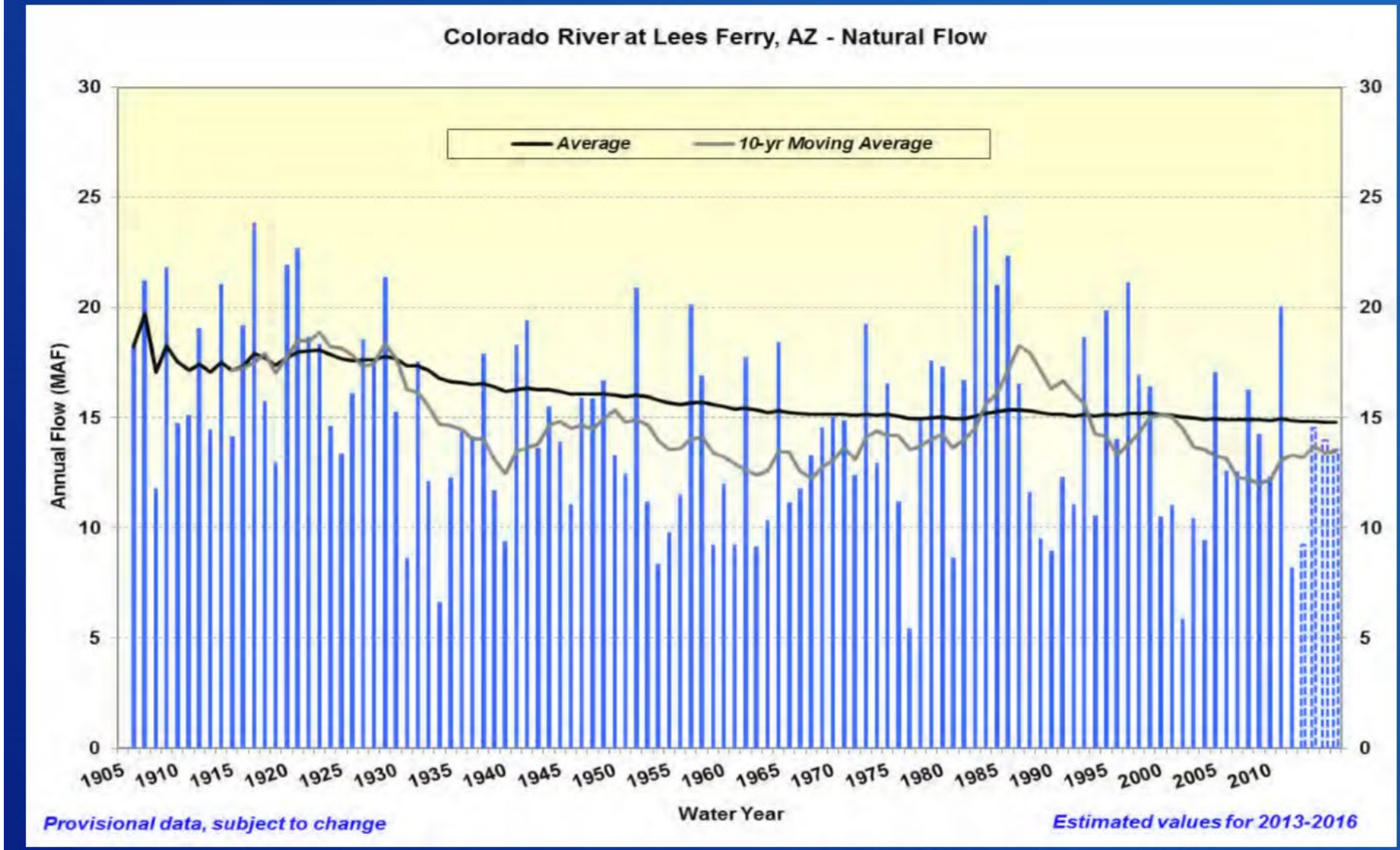
Harvard University Water Federalism Conference, 2012

East Slope Reliance on Colorado River



Source: www.usbr.gov

Natural Flow
Colorado River at Lees Ferry Gaging Station, Arizona
Water Year 1906 to 2016



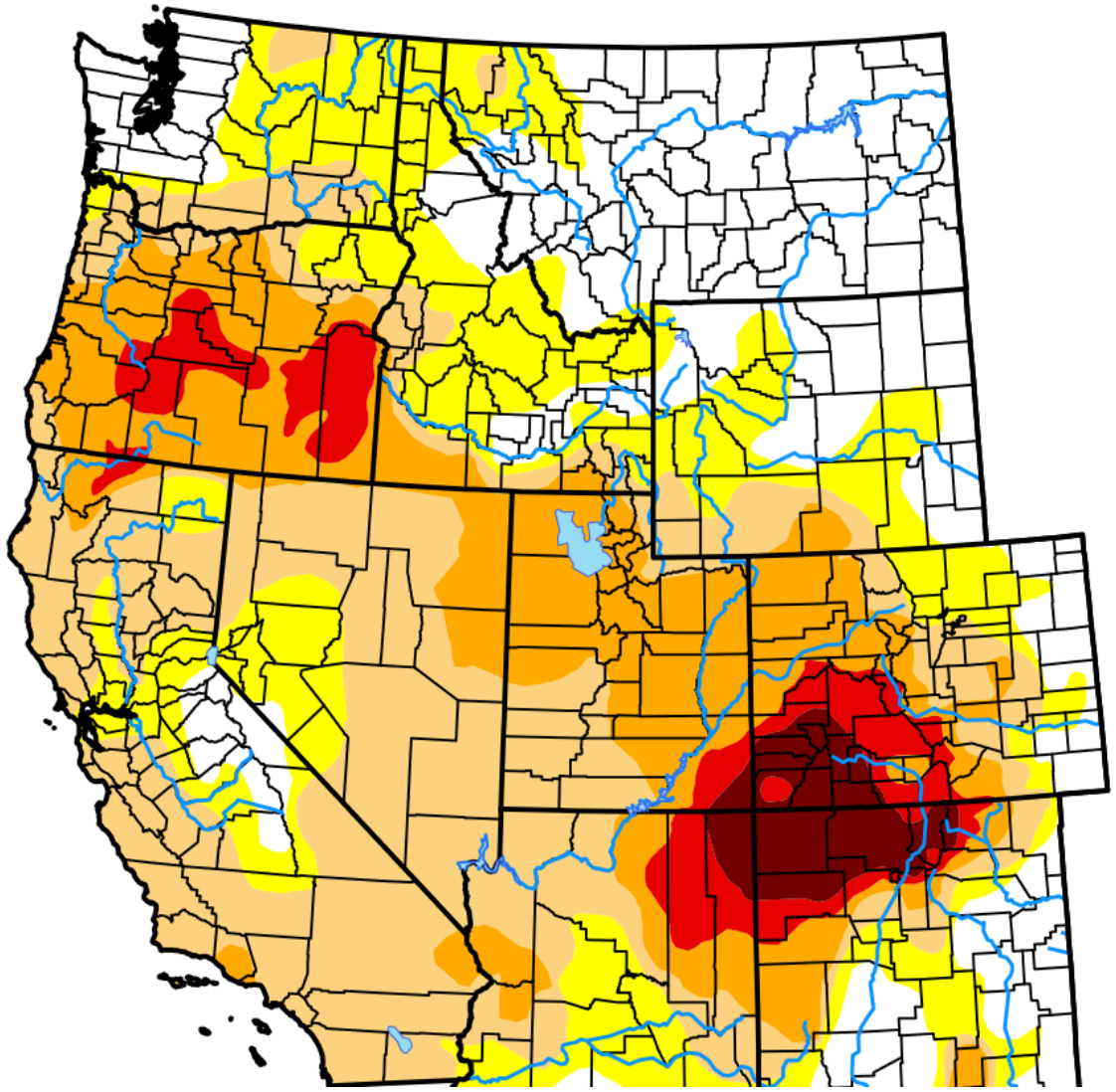
RECLAMATION

Colorado River Drought

Lake Powell

Source: Bureau of Reclamation

U.S. Drought Monitor
January 15, 2019



Intensity:

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

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

Author:

Brad Pugh
CPC/NOAA

Drought Contingency Planning in the Upper Basin

- Drought Operations of Upper Basin Reservoirs.

Source: Bureau of Reclamation

Source: GVWUA

- Demand Management: facilitation of temporary voluntary program to reduce consumptive uses.

- Weather Modification

Source: Public Domain