

LAW OF THE COLORADO RIVER

HISTORY AND FUTURE

Yampa/White/Green Roundtable
July 23, 2014

John H. McClow
Colorado Commissioner, Upper Colorado River Commission

The Colorado River Basin



Law of the Colorado River

- Colorado River Compact (1922)
- Boulder Canyon Project Act (1928)
- Mexican Water Treaty (1944)
- Upper Colorado River Basin Compact (1948)
- Colorado River Storage Project Act (1956)
- *Arizona v. California* (1964)
- Colorado River Basin Project Act (1968)

Colorado River Compact (1922)



- Interstate Compact
- Contract among states
- Authorized by U. S. Constitution
- Ratified by
 - State Legislatures
 - U. S. Congress
- State Law (§ 37-61-101)
- Law of United States

Key Provisions of the Colorado River Compact

Article III(a)

Apportions to Upper Basin and Lower Basin 7.5 million acre-feet per year in perpetuity.

Article III(b)

Lower Basin may develop additional one million acre-feet annually.

Article III(c)

Defines obligations of Upper and Lower Basins for deliveries to Mexico.

Article III(d)

Upper Division will not deplete flows at Lee Ferry below an aggregate of 75 million acre-feet over any period of ten consecutive Years.

Article IV(c)

No interference with state control of water within its boundaries.

Article VIII

Present perfected rights are unimpaired.

Mexican Water Treaty (1944)



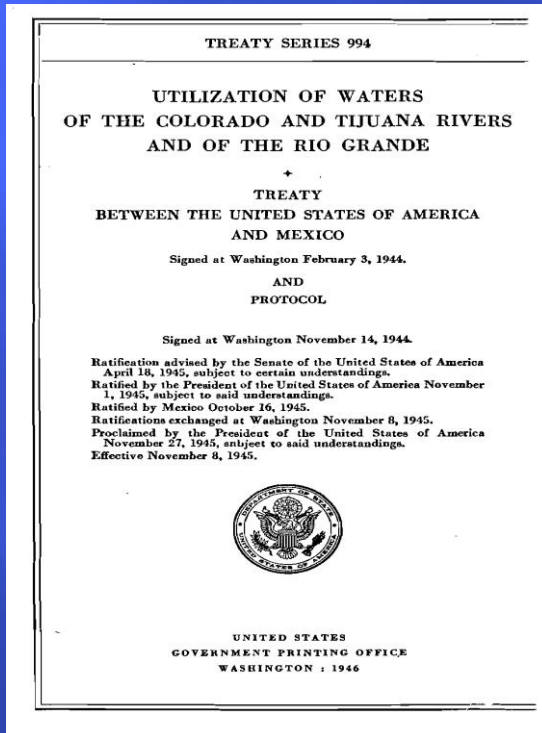
Signing of 1944 Treaty

Article 10(a)

1.5 maf guaranteed to Mexico annually

Article 10(b)

“surplus of waters” and
“extraordinary drought” provisions



Upper Colorado River Basin Compact (1948)

Article I

“equitable division and apportionment of the use of waters”

Article III(a)

- Arizona 50,000 af
- **Colorado 51.75%**
- Utah 23.00%
- Wyoming 14.00%
- New Mexico 11.25%

Article VIII

Creates Upper Colorado River Commission (four states plus United States)

Article IV

In the event of curtailment Commission determines quantities

Penalty for over use by any state

Upper Division States' Colorado River Compact Compliance

Navajo Reservoir



Flaming Gorge Reservoir



Blue Mesa Reservoir



Colorado River Storage Project

30.6 million acre-feet
total storage

Objective Annual Release:
8.23 million acre-feet

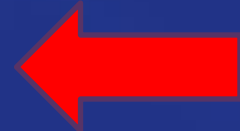


Lake Powell

Upper Division States' Colorado River Compact Compliance

Historic Flow at Lee Ferry (acre-feet)

	Annual	10 year avg.
2001	8,361	101,983
2002	8,348	102,308
2003	8,372	102,543
2004	8,348	102,585
2005	8,395	101,738
2006	8,508	98,716
2007	8,422	93,265
2008	9,180	89,004
2009	8,406	85,870
2010	8,436	84,777
2011	13,227	89,643
2012	9,534	90,829
2013	8,289	90,746



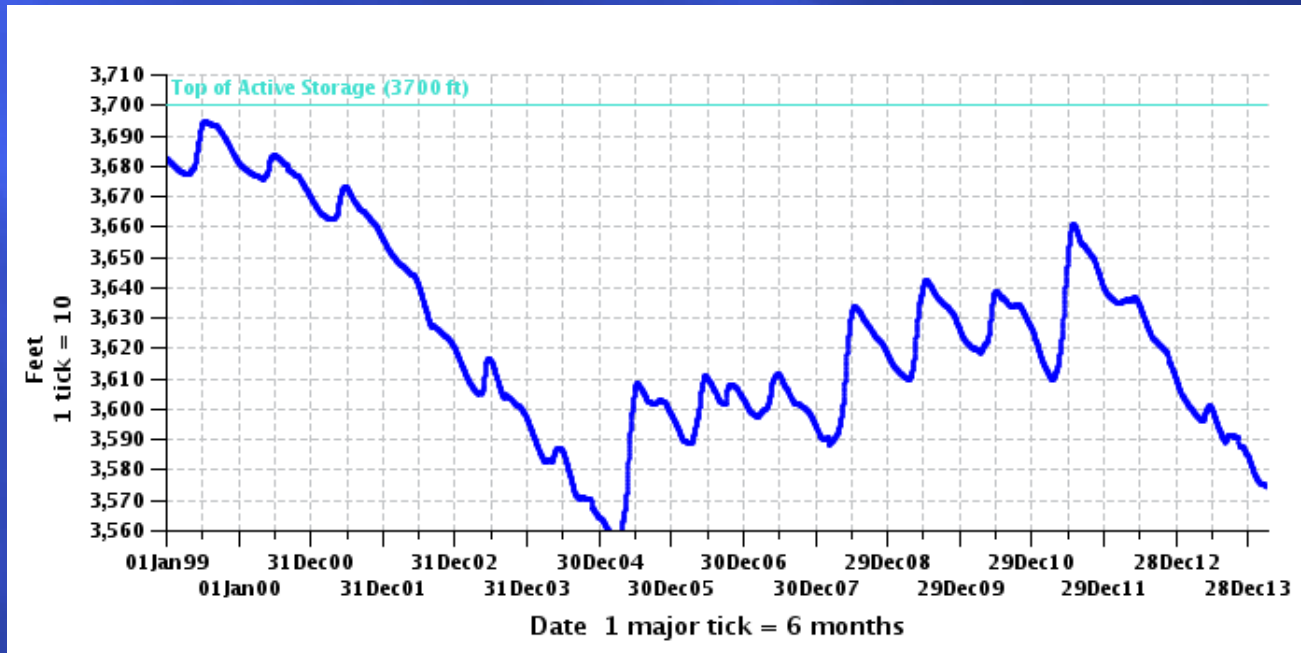
Sustained Drought

Inflows to Lake Powell

Percentage of 30-year average (1971-2000: 12.04 maf)

- 2000 – 7.32 maf (62%)
- 2001 – 6.96 maf (59%)
- 2002 – 3.06 maf (25%)
- 2003 – 6.36 maf (51%)
- 2004 – 6.13maf (49%)
- 2005 – 12.62 maf (105%)
- 2006 – 8.77 maf (71%)
- 2007 – 8.23 maf (68%)
- 2008 – 12.36 maf (102%)
- 2009 – 10.36 maf (92%)
- 2010 – 8.74 maf (73%)
- 2011 – 16.79 maf (142%)
- 2012 – 4.91 maf (45%)
- 2013 – 5.12 maf (47%)


(1981-2010: 10.83 maf)



Adapting the Law of the River

2007 Interim Shortage Guidelines

- Coordinated operation of Lake Powell and Lake Mead
- Conditions under which the Secretary will declare shortage and surplus in the Lower Basin
- Rules allowing water users in the Lower Basin to develop and store conserved water in Lake Mead




THE SECRETARY OF THE INTERIOR
WASHINGTON

Record of Decision


Colorado River Interim Guidelines for Lower Basin Shortages and the
Coordinated Operations for Lake Powell and Lake Mead

December 2007

Recommending Official:

 December 13, 2007
ROBERT JOHNSON Date
Commissioner, Bureau of Reclamation

Approved:

 December 13, 2007
DIRK KEMPTHORNE Date
Secretary of the Department of the Interior

Adapting the Law of the River

Minute 319



November 20, 2012



Storage of Mexican water



Environmental flows

Adapting the Law of the River

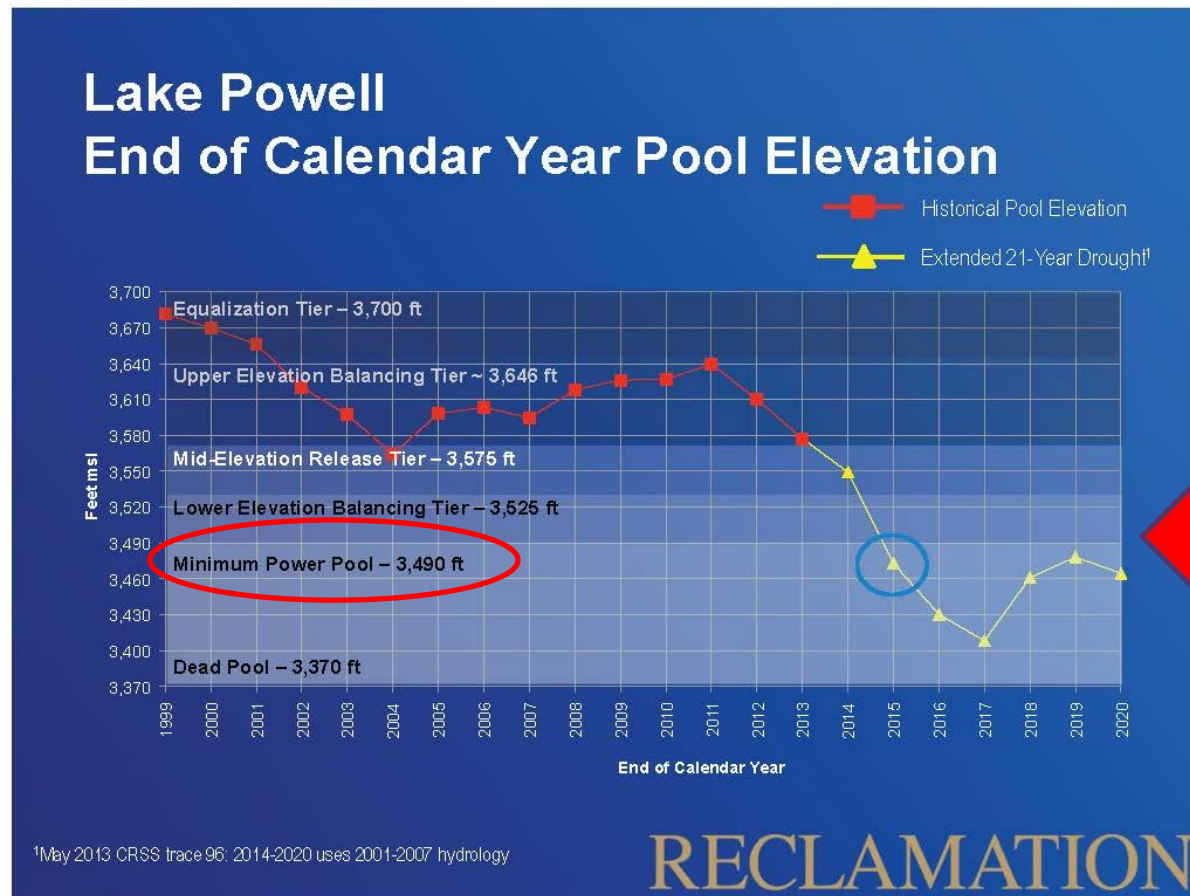
2007 Interim Shortage Guidelines

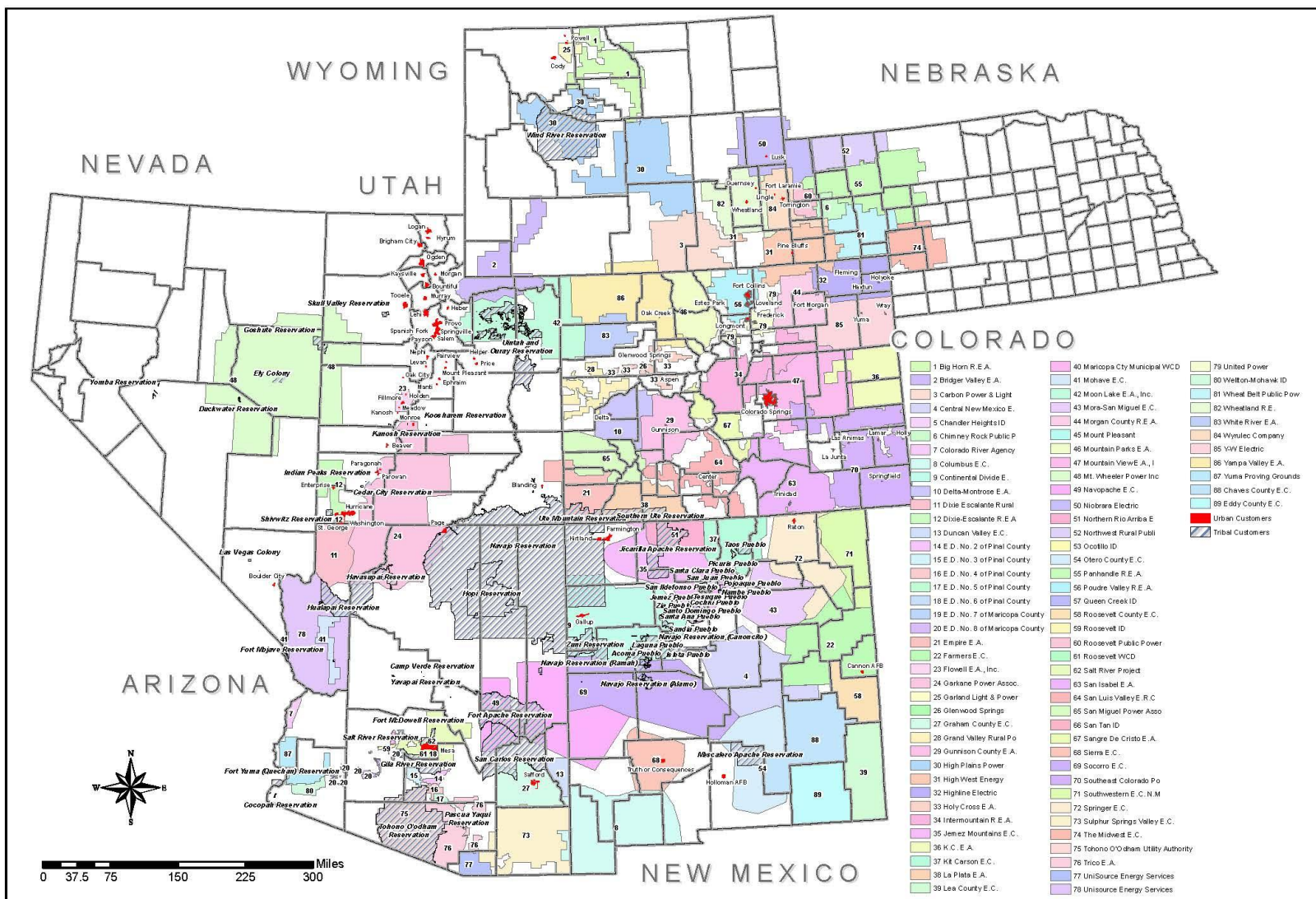
Lake Powell Operational Tiers (subject to April adjustments or mid-year review modifications)		
Lake Powell Elevation (feet)	Lake Powell Operational Tier	Lake Powell Active Storage (maf)
3,700	Equalization Tier equalize, avoid spills or release 8.23 maf	24.32
3,636 – 3,666 (see table below)	----- Upper Elevation Balancing Tier release 8.23 maf; if Lake Mead < 1,075 feet, balance contents with a min/max release of 7.0 and 9.0 maf	15.54 – 19.29 (2008 – 2026)
3,575	----- Mid-Elevation Release Tier release 7.48 maf; if Lake Mead < 1,025 feet, release 8.23 maf	9.52
3,525	----- Lower Elevation Balancing Tier balance contents with a min/max release of 7.0 and 9.5 maf	5.93
3,370		0

2014 Release: 7.48 maf

Adapting the Law of the River

Contingency Planning





DISCLAIMER:

The data represented on this map has been developed from the best available sources. Although efforts have been made to ensure that the data are accurate and reliable, errors and variable conditions originating from physical sources used to develop the data may be reflected in the data supplied. Users must be aware of these conditions and bear responsibility for the appropriate use of the information with respect to possible errors, scale, positional accuracy, development methodology, and other circumstances specific to this data. The user is responsible for understanding the accuracy limitations of the data provided herein. The burden for determining fitness for use lies entirely with the user. The data on this map is for reference use only.

United States Department of Energy
Western Area Power Administration
Colorado River Storage Project



WAPA Service Territory

Operational Impacts

- More frequent releases of 8.23 maf or lower each year
- Minimum elevation for power generation is approximately 3,490 ft.
- Below 3,490 ft releases would be made through bypass tubes only
- As elevation decreases, cannot release full capacity of bypass tubes (15,000 cfs.)

3500' - 10.86 maf annually

3490' - 10.60 maf annually

3450' - 9.09 maf annually

3440' - 8.28 maf annually

3430' - 7.41 maf annually

3420' - 6.37 maf annually

3400' - 3.47 maf annually

3370' = 0 maf, dead pool



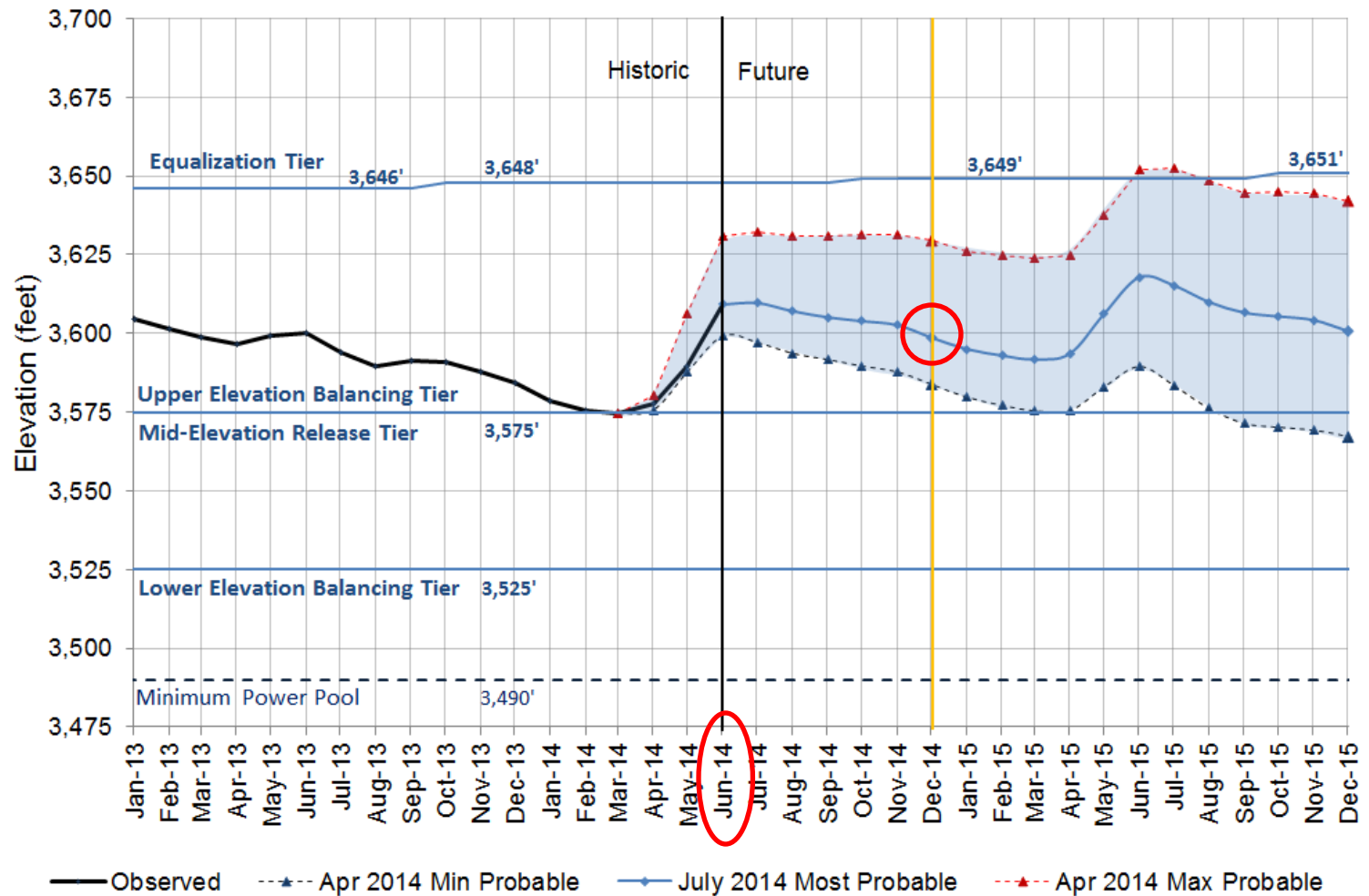
RECLAMATION

Adapting the Law of the River



Lake Powell End of Month Elevations

Historic and projected based on April and July modeling



Source: Bureau of Reclamation Upper Colorado Region Water Resources Group

Questions?

