



Data exchange in North American transboundary basins

MSc Mario López Pérez
Engineering and binational water issues Manager

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DERIVACIONES:

COLORADO RIVER

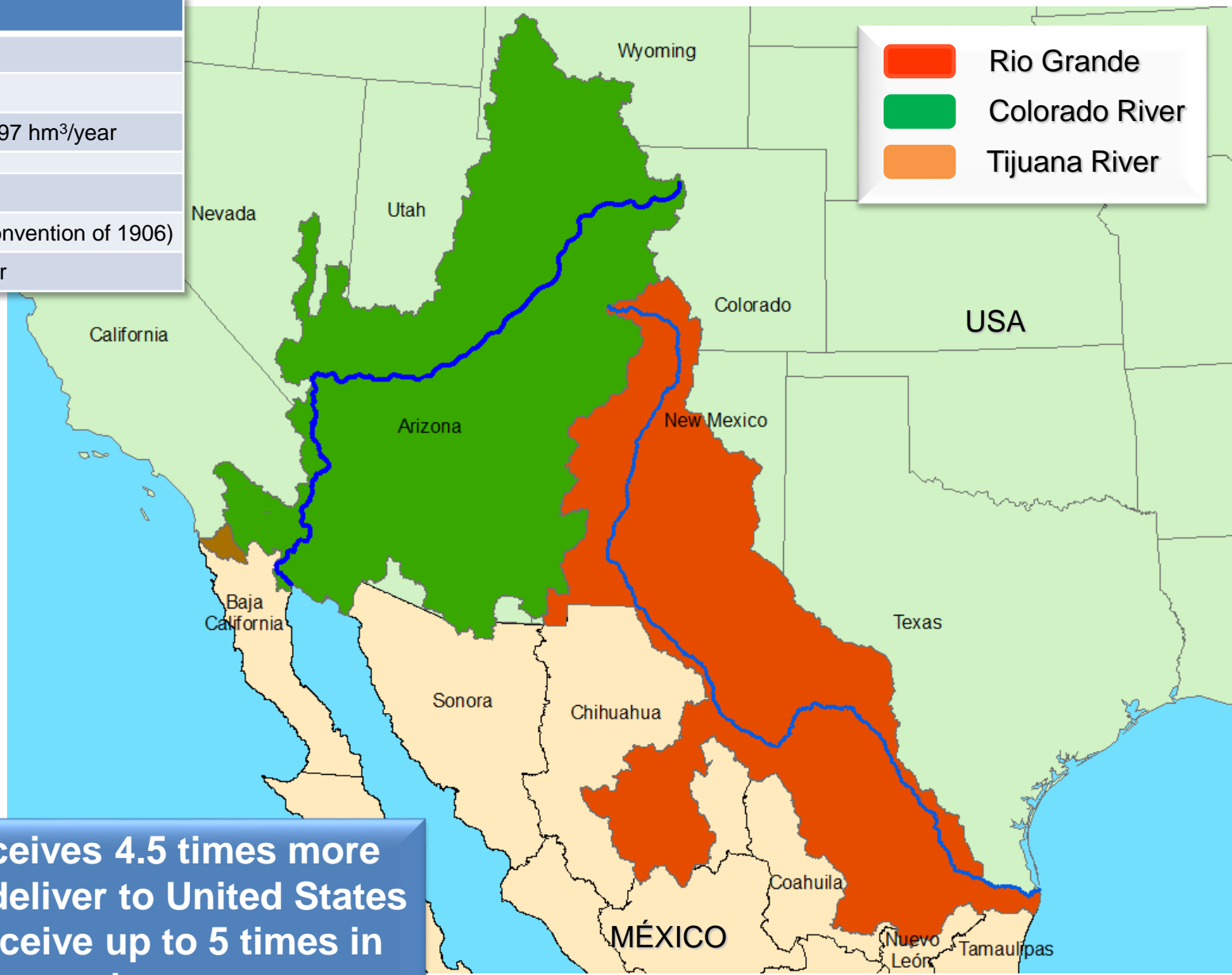
Méx. = 1,850 hm³/year

Méx. High Table = 2,097 hm³/year

RÍO GRANDE

Méx. = 74 hm³/año (Convention of 1906)

E.U.A.= 431.7 hm³/year



Mexico receives 4.5 times more water than deliver to United States and can receive up to 5 times in surplus

Mexico – United States Binational Cooperation Agreements

- Convention between United States and Mexico. Equitable Distribution of the Waters of the Rio Grande (1906)
 - Treaty between the United States of America and Mexico. Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944)
 - Peace Agreement for the Environment (1983)
 - Border Infrastructure Comprehensive Plan (1992)
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Mexico – United States Binational Cooperation Agreements

- Side Agreements to NAFTA. NADB and BECC Creation (1993)
 - Binational Environmental Program Border XXI (1996)
 - Mexico – United States Joint Investment Program EPA –CONAGUA (2000)
 - Binational Environmental Program Border 2012 (2002)
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Water treaty for Juarez Valley 1906 Allocation to the United States



- USA delivers to Mexico 74 hm³ per year from the Rio Bravo / Grande to irrigate the Juarez Valley (DR-009).
- In case of extraordinary drought or serious accident to the irrigation system in the US (El Paso), the amount delivered to the Mexican Canal shall be diminished in the same proportion as the water delivered to lands under said irrigation system in the US.

Water Treaty of 1944

1. Legal Instrument that regulates the relationship between Mexico and United States, to jointly manage the waters of international rivers
 2. Creates the IBWC as binational agency to ensure its implementation
 3. It states:
 - ➔ Priority in the use of water
 - ➔ Criteria for distribution of the water for each country
Articles 4 and 10
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Water Treaty of 1944

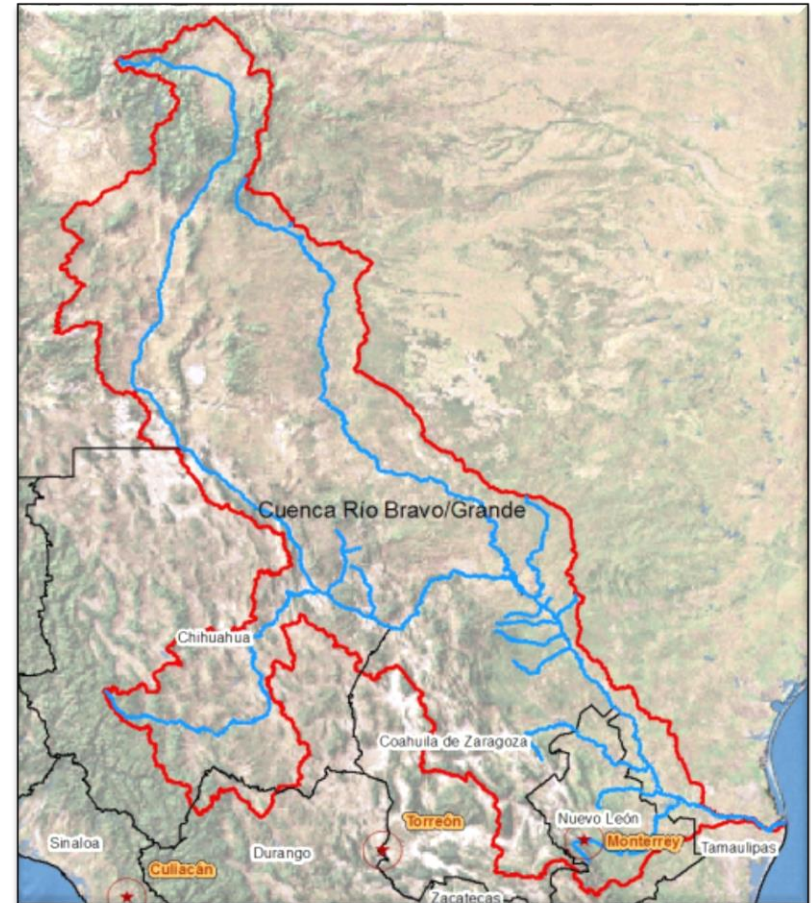
- ➔ Basis of cooperation for the joint construction of hydraulic infrastructure on international rivers
- ➔ Basis for defining specific criteria for dams operation
- ➔ Common Criteria for dam operation in flood control

4. Give priority to sanitation.

5. Enable the development of procedures for water accounting and hydromesurement of the international rivers.

- The Bravo river has a total length of **2,904 km**, from the headwaters in the San Juan Mountains in southern Colorado, US until its discharge at the Gulf of Mexico.
- On the Mexican side there are **17** storage dams, **2** of them are international.
 - 7 Hydrologic Subregions
 - 5 States
 - 141 Municipalities
 - A basin area of 229,798 km²
 - 10.34 million inhabitants 2005 (Conapo)

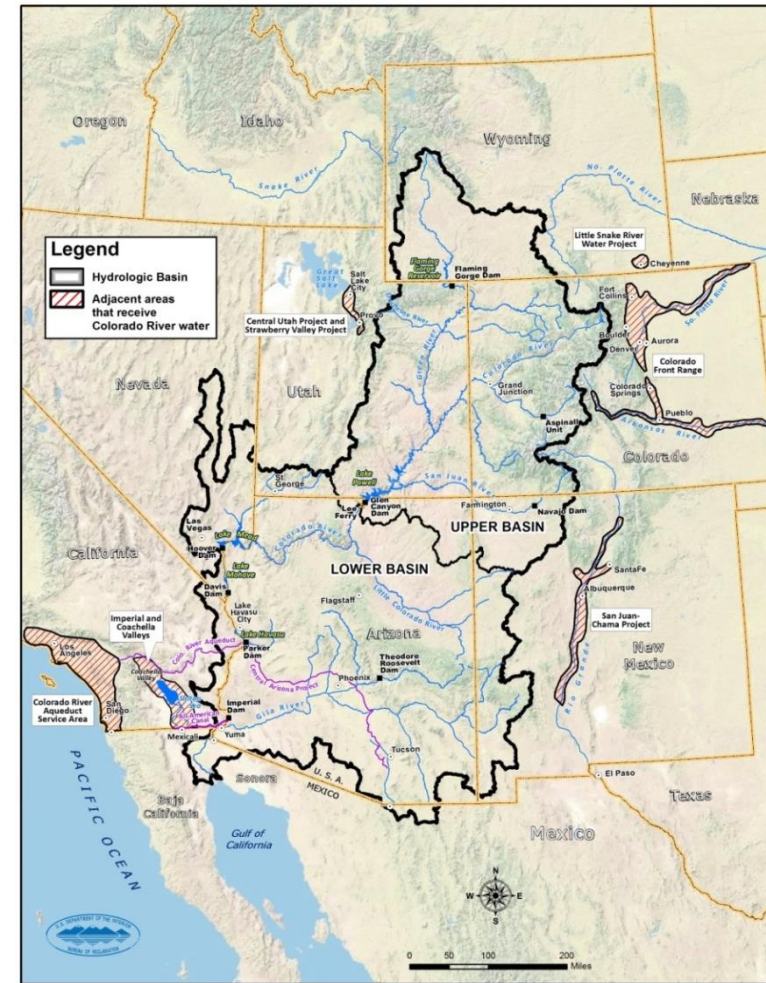
Bravo River



Overview of the Colorado River System

- 16.5 maf (20,350 mcm) allocated to the U.S. and Mexico annually
- 13.0 to 14.5 maf (16,040 to 17,890 mcm) of consumptive use annually
 - 7.5 maf (9,250 mcm) used by Lower Basin
 - 1.5 maf (1,850 mcm) used by Mexico
 - 4.0 to 5.5 maf (4,930 to 6,780 mcm) used by Upper Basin*

**Note: To-date, the Upper Basin has not used its full allocation of 7.5 maf (9,250 mcm) annually*
- 60 maf (74,010 mcm) of storage in U.S. reservoirs
- 14.8 maf (18,260 mcm) of average annual “natural” inflow into Lake Powell over past 109 years

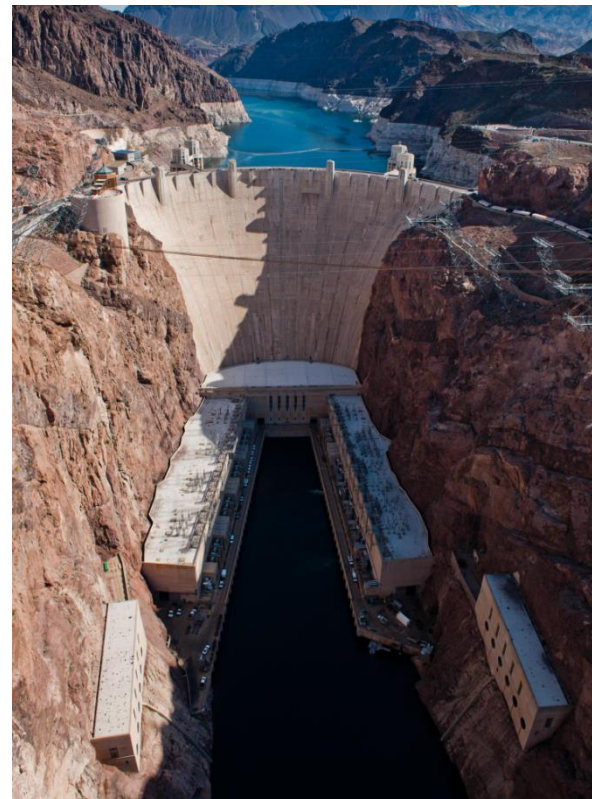


- **Worst 15-year drought in 109 years of recorded history**
- **One of worst 15-year droughts in over 1200 years**
- **Lower Basin shortages possible beginning in 2016 (approx. 20% chance)**
- **Chance of Lower Basin shortages in 2017 approximately 50%**

**Lake
Mead
near
Hoover
Dam
2000**



**Lake
Mead
near
Hoover
Dam
2015**



Benefits of data sharing

- It is recognized that Mexico has the agreed volume by right and no by courtesy
 - Flexible Delivery Tables are established, which allows Mexico to ensure the planning of its crops.
 - Promotes better joint use, depending on specific problems of each river
 - It is implicitly established that one country can't use the water from international rivers that are located in its territory to the detriment of the other.
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Objectives to achieve a sustainable use with data sharing

- Achieve an integral and sustainable use of waters in basins and aquifers.
 - Assure technical, managerial, and financial capacity of the water sector and the effective application of the current laws and regulations.
 - Promote the rational and efficient use of water and increase the productivity of the irrigation areas.
 - Prevent risks and attend the effects of extreme hydrometeorological events.
 - Consolidate the participation of the users and society, guiding it towards the preservation of water resources.
 - Increase the coverage, improve the quality and efficiency of the services of drinking water and sanitation, prioritizing the attention to marginal areas.
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Thank you

MSc Mario López Pérez
Engineering and binational water issues Manager
mario.lopezperez@conagua.gob.mx