2.3: Colorado River Aqueduct

Metropolitan Water District was formed in 1928 with the explicit purpose of picking up on where the City of Los Angeles left off with the planning for the use of the Colorado River. The Colorado River Aqueduct was funded by voters three years later in 1931, begun in 1933 and completed in 1935. Water first began to flow in 1939. Even though this time frame is relatively short, the Colorado River Aqueduct was the result of a series of lengthy and heated negotiations, which we will now explore. Collectively the agreements that govern the Colorado River are known as The Law of the River.

Learning Objectives

After reading this section, you should be able to:

- Differentiate among key agreements that are part of The Law of the River
- Conjecture as to possible sources of future disagreement
The primary tension with all Law of the River negotiations is similar to the tension in California: spatial. The water doesn’t exist where the population centers are. But the geography of the Western United States is much more vast than just California. There are seven states considered to be within the Colorado River Basin: Wyoming, Colorado, Utah, New Mexico, Arizona, Nevada, and California. These are all primary stakeholders in the use of the Colorado River. The upper basin states include Wyoming, Colorado, Utah, and New Mexico. Upper basin states were especially sparse in population and anticipated that they might need the Colorado River water at some point as their populations increased or industries like natural gas extraction grew, but they didn’t have an immediate need for the water. The lower basin states included California, Arizona, and Nevada, most of whom had burgeoning populations. The upper basin states were originally concerned that if the lower basin states constructed dams, including Hoover Dam, and began to use the Colorado River that under the doctrine of prior appropriation, the upper basin states would not be able to use the Colorado River’s water again.

The first important agreement in The Law of the River is the Colorado River Compact of 1922, which divided the basin in half. Each basin had the right to use 7.5 MAF of water based on an average flow of the Colorado River of 18 million acre-feet per year, plus a small allocation to Mexico. While most states ratified this agreement, it took Arizona 22 years to ratify it, which is a window into the contentiousness. Arizona was greatly concerned about not receiving enough water eventually and of California taking water that Arizona was entitled to.

The second important agreement in The Law of the River was the Boulder Canyon Project Act of 1928. Negotiations for this agreement lasted seven years, and including four bills being introduced and a filibuster. In this agreement, the lower basin was apportioned among the states:

- Arizona - 2.8 MAF
- California - 4.4 MAF
- Nevada - 0.3 MAF

The Secretary of the Interior was directed to function as the authority for water use in the lower basin, including the ability to commission studies on feasibility for dams and storage. It is interesting to note how small the apportionment for Nevada is.
As a slightly less important agreement in the Law of the River, the California Seven Party Agreement of 1931 is an agreement for division of water among seven entities. The parties included Palo Verde Irrigation District, Yuma Project, Imperial Irrigation District, Coachella Valley Irrigation District, Metropolitan Water District, and the City and County of San Diego. This agreement temporarily settled longstanding disagreements between agricultural and urban users.

The third important act in The Law of The River is an international treaty. In the Mexican Water Treaty of 1944, 1.5 MAF of the Colorado River flow were committed to be received in Mexico. While the amount was agreed upon, the quality of the water remained undetermined. Due to agricultural and urban use, the quality of the Colorado River becomes worse the further south the river flows. A desalting plant for removing salt was eventually built in Yuma, Arizona to increase the quality of the water released to Mexico.

In the fourth important agreement in The Law of the River, the Upper Colorado River Basin Act of 1948, the upper Colorado River Commission was created and the Upper Basin was apportioned:

- Colorado - 51.75%
- New Mexico - 11.25%
- Utah - 23%
- Wyoming - 14%

During the negotiations, it was noted that the originally agreed upon amount of 18 million acre-feet of normal flow for the Colorado River might be an overestimation and that agreements would be better done by percent rather than flat allocations of water.

The Law of the River is a complicated set of agreements, and the previous pages only covered the major agreements. It should be clear that there will be issues of allocations, water rights, and urban v. agricultural differences for many years to come. Several recent modifications to the Law of the River were made because of droughts. In 2007, interim guidelines for allocating the Colorado River during water shortages through 2026 were signed by the Secretary of the Interior. Water shortages were determined based on the surface elevation of Lake Mead. In 2012, the United States and Mexico signed Minute 319 that addressed how Mexico’s allocation of 1.5 MAF would change in drought conditions also based on the surface elevation of Lake Mead.

Try It!

1. What is the difference between the Upper Colorado Basin Act and the Boulder Canyon Project Act?
2. What is a likely source of disagreement in the future?

Key Terms

Boulder Canyon Project Act of 1928—Apportioned the lower Colorado River basin among three states:

- Arizona - 2.8 MAF
- California - 4.4 MAF
- Nevada - 0.3 MAF
Colorado River Compact of 1922—Which divided the basin in half; each basin had the right to use 7.5 MAF of water based on an average flow of the Colorado River of 18 million acre-feet per year, plus a small allocation to Mexico

The Law of the River—Collectively the laws and regulations that govern the Colorado River

Mexican Water Treaty of 1944—Committed 1.5 MAF of the Colorado River flow to Mexico; did not describe the quality of water, just quantity

Minute 319—An international agreement between the United States and Mexico regarding the Colorado River that addressed how Mexico’s allocation of 1.5 MAF would change in drought conditions also based on the surface elevation of Lake Mead

Upper Colorado River Basin Act of 1948—Apportioned the Upper Colorado River Basin by percent:

- Colorado - 51.75%
- New Mexico - 11.25%
- Utah - 23%
- Wyoming - 14%