Class 2
Los Angeles

1 Young William Mulholland—Early Los Angeles
The Los Angeles Water Co. & Fred Eaton
The city buys the Water Co. - Mulholland takes command
Growth of Los Angeles — not enough water

2 The Owens Valley
Three schemers — J.P. Lippincott, Fred Eaton, William Mulholland
The Los Angeles Water Commission
Eaton strikes fast
Chinatown

3 Getting the Federal permits — Teddy Roosevelt to the rescue

4 Building the Aqueduct
Mulholland at his best — the George Patton of engineers

5 Triumph — the Sylmar Spillway

6 Tragedy — the St. Francis Dam

The Imperial Valley

7 "The winning of Barbara Worth"

8 The Salton Sink — Diverting the Colorado River
One engineer and one shady real estate man

9 The California Development Corp — success at first

10 J.P. Lippincott again — a busy man

11 Desperate men do desperate things — Disaster — Colorado River runs amok — the Salton Sea

12 E.H. Harriman [SP Railroad] & Henry Cory to the rescue

13 The Jeffersonian dream meets reality

APR 16 2019
Water Wars in the Age of Global Warming---Class Schedule

Class 1  San Francisco - damming the Tuolumne River in Yosemite National Park

Class 2  William Mulholand--bringing the Owens River water to Los Angeles
Creating the Imperial Valley--diverting the Colorado River into the Salton Sink

Class 3  Bringing Colorado River water to Southern California--the Colorado River Compact--Hoover Dam--the Colorado River Aqueduct
Bringing Colorado River water to Arizona--Glen Canyon Dam

Class 4  Northern California--fighting floods on the Sacramento River-- levees and levee wars--in the 1920's & 1930's California creates a state "Water Plan" the great dams are built--Shasta, Friant, Folsom--the 1960s bring Edmund "Pat" Brown, Oroville Dam, and the California Aqueduct

Class 5  Today new challenges--the southwest's precipitation cycles are shortened and accentuated by global warming--severe drought followed by heavy snow, rain -- drought in the Colorado River Basin since 2000 agriculture, cities, the environment fighting for scarce water

Classes 6 & 7
What to do? aggressive conservation measures--more storage capacity recharging groundwater aquifers--recycling "grey water"-desalinization-
The rest of America--flooding in the Midwest--flooding in the southeast

Class 8  The rest of the world--dire drought coming in the Middle East, Iran, central Africa, Pakistan, China, southeast Asia, Australia Biotech offers real hope for feeding the world

NO CLASS ON MAY 7
GENERAL DELIVERY UNIVERSITY COLLEGE OF LAW REVIEW

10 WATER LAWS OF THE WEST

By Hugh Holub

Introduction: It does not take a law degree to understand water law and policy in the western United States. Ten basic legal and historical principles govern the rights to and uses of water in the West. By understanding these Water Laws of the West anyone can then understand the current issues of water and its relationship to the future of the West.

1. The Law of Gravity: The First Water Law of the West is the Law of Gravity. Water runs down hill. The initial uses of water in the West involved the use of gravity to tap rivers and divert their flows into canals for delivery to farms and mines. This is also known as Newton's Law.

2. The Law of Los Angeles: The Second Water Law of the West is the original law of Los Angeles. This L.A. Law states that "water runs uphill to money". The development of energy technologies to lift water against the pull of gravity is the basis for modern Western civilization. Los Angeles pioneered the effort to defy gravity with money in the early 1900's with its Owens Valley Aqueduct. Southern California is now served with a network of pipelines and canals such as the Metropolitan Water District's Colorado River Aqueduct. Phoenix, San Francisco and Denver also utilize massive pumping and diversion systems to transport water from great distances in defiance of gravity to serve their growing urban populations.

3. The Law of Supply Creating Demand: The Third Water Law of the West, also invented by Los Angeles, is that "if you don't have the water, you won't need it." This is sometimes stated as "he who brings the water brings the people". Both are attributed to William Mulholland, a pioneer director of the Los Angeles Department of Water & Power (DWP). Los Angeles and other Western cities operate on the premise that in order to assure growth of their cities, water supplies for the future must be developed well in advance of that growth. This is in contrast to the general approach in Western cities of developing freeways and other public infrastructure long after the growth has actually happened.

4. The Law of I Got It First: The Fourth Water Law of the West, embodied in the West's surface water laws, is the doctrine of "prior appropriation" translated into "first in time is first in right". First in time for most water uses the West were farms and mines. Instead of "first in time is first in right", we have seen the evolution of "we've got more votes than you in the state legislature" to decide who gets water.

5. The Law of Beneficial Use: The Fifth Water Law of the West is that to have a right to water it must be "beneficial" or "reasonably" used on that appurtenant land. This is only understood in the context that water flowing in a river maintaining the survival of fish in that river and vegetation growing along side that river was originally defined as a "beneficial" use in Western water law, whereas drowning gophers or growing rice in deserts were deemed "beneficial" uses. In recent years, environmentalists have succeeded in gaining recognition of "instream" beneficial uses of water and a new category of water rights is beginning to emerge to reserve flows in rivers. However this process is emerging only after most rivers and streams in the West have been dammed and dried up by diversions of the flows to the previously established beneficial uses. To fully appreciate why this happened, it must be remembered that the fish in these streams only recently were able to obtain the services of water lawyers via various environmental and conservation organizations.

6. The Law of Worthless Land: The Sixth Water Law of the West is that without a water right or access to

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water, land is worthless. There is not enough water available to use all available land for all the potential useful uses. Thus lands with water rights or access to water have value for use, whereas land without water rights is known as the desert, with zero value except when being subjected to state and local property taxation. It is also a historic fact that farmers, ranchers and miners figured all this out about a hundred years before the average city council or environmental group, thus most Western water laws are heavily weighted in favor of using water for farming, ranching and mining. This law is also known as the “appurtenancy” rule meaning the rights to the use of water are tied to specific parcels of land, which are usually owned by farmers, ranchers or miners.

VII. The Law of Expropriation: The Seventh Water Law of the West focuses on how water (and other natural resources) are obtained for Western civilization. This Law depends on finding some fairly impoverished and unsophisticated water right holder (usually Indians, farmers, or rural communities) on the other side of the mountain a city can steal water rights from. Los Angeles pioneered this approach by buying up the Owens Valley on the east slope of the Sierra Nevada for water rights nearly 90 years ago. What we are now perceiving is not so much a water shortage, but a shortage of people on the other sides of the mountains who are willing to let their water resources be stolen from them by cities.

VIII. The Law of the Price is Right: The Eighth Water Law of the West is that there is no water shortage if the price is right. It is widely believed in city halls that the farmers will sell their water rights if the price is high enough so the farmers can go raise marlins in La Jolla instead of cotton in the Salt River Valley of Arizona, or the Imperial Valley in California. Thus when someone asks “is there enough water for Los Angeles or Phoenix to grow?” the answer is probably yes—if you don’t care about how much the water will cost.

IX. The Law of Water Monopoly: The Ninth Water Law of the West is that water management in an arid environment almost-always results in the creation of a water monopoly. Thus (along with the discovery of fire and religion) the first steps towards civilization included the construction of irrigation ditches and the immediate creation of some sort of bureaucracy to run the system. Not surprisingly where irrigation water monopoly civilizations rose, they lasted for thousands of years. The Westlands Irrigation District in the Central Valley of California and the Salt River Project in Arizona are merely the modern counterparts of one of humankind’s mosticientof institutions—the water monopoly. Many western urban areas figured out the value of water monopoly and created enormously powerful regional agencies such as the Metropolitan Water District of Southern California and the Central Arizona Water Conservation District in Arizona, to do essentially the same thing—building vast networks of canals to bring water to their constituents.

X. The Law of Vanishing Civilizations: The Tenth (or Last) Water Law of the West should be called the Hohokam Law of Water and Gravity. Under this law, if there is no rain, there is no water to flow down hill. What happens—the buildings and the civilization—may crumble to dust if Mother Nature decides to hold a long drought. (As the ruins beneath the streets of Phoenix are the ruins of the ancient Hohokam Indian metropolis that vanished prior to 1400 AD.) Phoenix is the second city to be built on the same site in reliance on the erratic flows of the Salt River. Californians prayed for rain for the last six years (apparently successfully) because they didn’t have enough water to flush their toilets. Many Southern Californians had been heard to ask “what do you mean this used to be a desert?”

Conclusion: The principles that govern Western water law and policy have a long and somewhat distinguished story. It should also be noted that similar arid environment ditch-dependent civilizations ultimately collapsed under extreme environmental stresses, internal political conflict, and invasion by barbarian hordes. This is worth contemplating after a six year drought with various water interests fighting over who will get water in times of future shortages while the streets of Santa Monica or Scottsdale are filled with RVs with New Jersey license plates.

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